

**EU-RUSSIA REGIONAL COOPERATION AND ENERGY NETWORKS IN THE
RUSSIAN NORTHWESTERN AND SOUTHERN REGIONS:
IMPLICATIONS FOR DEMOCRATIC GOVERNANCE**

by

Ekaterina Turkina

BA, Ryazan State University, 2002

MPIA, University of Pittsburgh, 2006

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This dissertation was presented

by

Ekaterina Turkina

It was defended on

April 21, 2009

and approved by

Dissertation Advisor: Dr. Martin Staniland, Professor, GSPIA, University of Pittsburgh

Dissertation Co-Chair: Dr. Louise Comfort, Professor, GSPIA, University of Pittsburgh

Dr. Alberta Sbragia, Professor and Jean Monnet Chair ad personam, Political Science, University
of Pittsburgh

Dr. Louis Picard, Professor, GSPIA, University of Pittsburgh

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This dissertation seeks to explain variation in democratic governance in the Russian Federation, in particular, difference in the levels of democratic governance between the northwestern and the southern regions of Russia that are included in the regional dimensions of the European Union foreign policy: the Northern Dimension and the Black Sea Synergy, respectively. Emphasizing a dynamic relationship among regional governance patterns in the EU-Russia regional cooperation and energy domains, regional ethno-cultural, historical, geopolitical, and economic contexts, and regional decision-making processes, it develops a model of sub-national democratic development and sub-national regionalism that links regional sustainable development and democratic governance to the multi-dimensionality of the external and internal pressures that shape and influence the behavior and strategic actions of regional actors and predetermine the configuration of relationships among them. The propositions of the model are tested empirically using both quantitative (econometric analysis of longitudinal data and longitudinal network analysis) and qualitative (interview data) methods. The findings of the analyses have implications for our understanding of sub-national regionalism in the Wider Europe and for the study of democratization and regional development more generally.

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PREFACE

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I. INTRODUCTION

A. EUROPEANIZATION, DEMOCRATIZATION AND EUROPEAN NEIGHBORHOOD

Democratization and fast economic development of the Central and Eastern European countries (CEEC) are usually associated with their integration into the European Union (EU) (Ivanov, 2004). Different scholars of the EU enlargement assert that the European integration had a major influence on the CEE countries in a way that they have been subjected to the process of ‘external governance’: “the desire of most CEECs to join the EU, combined with the high volume and intrusiveness of the rules attached to its membership, have allowed the EU an unprecedented influence on the restructuring of domestic institutions and the entire range of public policies in these countries” (Schimmelfennig and Sedelmeier, 2004). Among the EU-related factors that enhanced democratization in the CEE countries scholars mention intensified interactions of broad publics that served as a means of the promotion of democratic values, extensively discussed by Karl Deutsch (1954), and specific EU policies targeted at national governments.

The EU conditionality is generally assumed to be the primary force that fostered democratic consolidation and change in governance policies in the EU accession states. According to Kopstein and Reilly (2000), there is a clear pattern of the spread of democratic governance policies from Western Europe to Central and Eastern Europe. However, the majority of the EU enlargement and integration scholars assert that non-candidate countries are not

subject to the EU-related democratization and can not benefit from the EU good governance policies due to the absence of the EU conditionality, meaning that there is no external force that would enhance governance reforms and establish the transfer of democratic norms to those countries (Schmitter, 2001). Therefore, the EU democratization and governance literature has been mainly focused on the accession and candidate countries with a nation-centered approach to democratization and very little research has been done on the European integration and EU enlargement processes in respect to non-candidate countries and regions of non-candidate countries sharing border with the EU.

Focusing on the EU-Russia regional cooperation, this dissertation addresses this gap in the literature by offering an explanation of how in addition to the targeted measures of the EU institutions, the culturally, historically, economically, and geopolitically conditioned advancement of democratization processes from the EU in the form of regional cooperation networks can generate support for democracy among regional and provincial actors and improve governance in non-candidate countries at the sub-national level, even when national-level conditions are not favorable for the EU influences. This dissertation argues that depending on their configuration, the networks among the public, private, and civil society regional and provincial actors induced by cooperation with the actors residing in the EU can serve as effective actor-based mechanisms for the indirect transfer of the EU norms into regions' internal policies. This study is important, because it offers the possibility of a more differentiated assessment of democratization and sustainable development than is generally offered in the studies of the EU-induced democratization and economic development. It focuses on the phenomenon of democratic and socio-economic development taking place at widely different rates within one country.

The dissertation also explores the limitations of the EU- related democratization processes in respect to the Russian regions. I argue that the existence of natural resources in the region and the dense and centralized network of energy companies and oblast governments (in the Russian public administration system *oblast* is roughly equivalent to *a province*) negatively affect democratic governance in the region and impede EU-related democratization processes.

The dissertation consists of six major parts. The first part is introductory and is devoted to the discussion of the research problem statement and the main research questions and hypotheses. The second part gives a comprehensive overview of EU-Russia relations and discusses the peculiarities of the sub-national level dynamics in the Northern Dimension and the Black Sea Synergy, two EU regional cooperation initiatives with the participation of Russia's northwestern and southern regions. Second, it discusses the aspects of EU external governance in respect to the Russian regions. Third, it provides information on the EU-Russia energy relations and gives an assessment of energy issues at the sub-national level. And fourth, it discusses research design issues.

The third part provides contextual information on the Russian provinces and presents longitudinal analysis of democratic governance in the provinces. First, it explores international activity of the provinces by treating them as international actors and discusses variation in democratic governance among the provinces. Second, it discusses the problems of resource-based economy at the sub-national level. And fourth, it conducts longitudinal analysis of democratic governance in the 88 Russian provinces and identifies major factors affecting the level of democratic governance.

The fourth part explores two variables that turned out to be significant in predicting the level of democratic governance in the Russian provinces- cooperation with the EU and energy-

in the context of the Russian northwestern and southern regions that are included in the regional dimensions of the EU Neighborhood Policy and therefore represent the most interesting case studies of the strength and intensity of the EU-related effects. In-depth network analysis of the regional cooperation networks and networks of energy companies and provincial governments is conducted to examine the embeddedness of the regions in the EU-related and energy structures, identify the key actors of these structures and evaluate their propensity to influence decision-making processes in the regions. The fourth part also identifies the factors that predict the positions of power and centrality in the regional cooperation and energy infrastructures and discusses implications for democratic governance and sustainable development in the regions.

The fifth part explores cultural, historical, geopolitical, and economic factors that explain the differences between the northwestern and southern regional cooperation and energy structures and broader governance patterns in the regions, and analyzes implications for democratic governance in the northwestern and southern regions.

The sixth part of the dissertation, a conclusive one, is devoted to the discussion of the prospects for further development of the EU-Russia sub-national regionalism and democratic governance in the Russian regions.

B. BACKGROUND AND STATEMENT OF THE PROBLEM

Though the EU and Russia recognize each other as the most important strategic partner in Eurasia, the current stage of the EU-Russia relations is called a ‘cold peace’ by some scholars: the parties had difficulties in extending the Partnership and Cooperation Agreement, which was the legal basis of the EU-Russia partnership for ten years; the EU criticizes Russia for its harsh energy policy, lack of commitment to economic diversification and eroding democracy, and

Russia in its turn accuses the EU of double standards and claims that Europe still perceives Russia through its experience with the Soviet Union. In addition, Russia's August 2008 show of force in its brief war against Georgia made the EU highly critical of its politics and actions in the Caucasus. However, at the regional level, the dynamic is drastically different from the Moscow-Brussels dynamic: cooperation with the EU has significantly increased in the Russian regions over the last ten years and the number of business initiatives, civil society and education programs, and environmental projects with the EU keeps growing (Stoliarova, 2007).

Many EU integration scholars claim that Russia will not be able to benefit from the EU-related democratization processes due to the lack of the EU conditionality, since Russia is not an EU candidate country and will not become one in the foreseeable future (Linz and Stepan, 1996). Scholars of the EU-Russian relations have primarily focused on the analysis of the EU-Russian supranational--national-level dynamics arguing that Russia is not and will not be part of European integration as it envisions itself as a regional power and is "profoundly ambivalent about integration with a Europe which insists on imposing its values" (Roberts, 2006).

Is Russia completely impervious to the EU influences or does the analysis lack important sub-national variables that would help to observe processes occurring between the two sides in a more rigorous fashion? If no integration processes occur between the EU and Russia, then how can high and steady growth of the EU-Russian regional cooperation (despite fluctuations in the supranational--national-level relations) be explained? Does regional cooperation with the EU have an impact on the democratic development of the regions taking part in cooperation projects, partnerships and initiatives? What local factors catalyze/impede EU-related influences? It seems like with a strong focus on the center-to-center dynamics some important aspects of the EU-related democratization processes in the Russian sub-national units have been overlooked.

EU influence has been considered the primary external factor accounting for democratization and improvement in governance in Central and East European countries. As mentioned above, the EU integration literature widely discusses EU-conditioned changes in the accession and candidate countries (Moravcsik, 1998; Scott, 1995). At the same time, there have been very few attempts to explore the effect of the EU integration processes on democratization and governance in non-candidate countries.

Several studies indicate that there is a significant variation in the level of democratic governance in the Russian regions and some scholars mention proximity to the EU and the degree of interaction with the EU (economic, trade, or social) as possible explanatory factors.¹ Lankina and Getachew (2006) conducted a panel study analysis of the relationships between proximity to the EU, EU aid, and democratization in the Russian regions and found a significant positive correlation between the three variables. Therefore, according to the scholars, regions that are closer to the EU and that are primary recipients of the EU aid tend to be more democratically developed than other regions. In addition, Lankina (2005) carried out a profound analysis of the politics of the EU's involvement in the Russian regions in terms of aid projects (under the TACIS program). However, besides technical assistance programs there are all kinds of regional partnerships and initiatives between the EU and Russian regional actors that can not be regarded simply as aid programs as they have multiple sources of funding coming both from the EU and the Russian sides and are concluded to the mutual benefit of participating parties.

¹ Obydenkova, A. 2006. "Democratization, Europeanization and Regionalization beyond the European Union: Search for Empirical Evidence", *European Integration Online Papers*, Vol. 10, No. 1; Stoner-Weiss, K. 1997. *Local Heroes: The Political Economy of Russian Regional Governance*, Princeton: Princeton University Press; Henderson, S. 2003. *Building Democracy in Contemporary Russia: Western Support for Grassroots Organizations*, Ithaca, N.Y.: Cornell University Press; Petrov, N. 2005. "Regional Models of Democratic Development," in McFaul, M., Petrov, N. and Ryabov, A. eds., *Between Dictatorship and Democracy: Russian Post-Communist Political Reform*, Washington, D.C.: Carnegie Endowment for International Peace.

There have been very few attempts to study the effect of such cooperative measures on democratic governance in the regions that have such cooperative activity.

Obydenkova (2006) explores cooperation between Europe and the regions of Russia (she applies the term ‘transnational regional cooperation’) and notices that the regions of Russia involved in cooperation with European countries and regions tend to be more pro-democratically developed than the others. However, the scholar is more interested in finding factors that explain the emergence of transnational cooperation rather than exploring its effects on internal processes in the regions involved in such cooperation and does not specify through what mechanisms democratization processes occur.

Two cases are particularly important here: Russian northwestern and southern regions. Both regions are involved in the regional dimensions of the EU Neighborhood Policy labeled Northern Dimension and the Black Sea Synergy, respectively. Both initiatives will be discussed in the next chapter of this dissertation. However, various scholars who conduct regional analysis claim that the northwestern region of Russia is much more advanced in terms of democratic governance than the southern region from economic and political openness and transparency of institutions, to provincial government strength and independence and the level of maturity of civil society and social capital (Petrov-Titkov, 2005; Lankina and Getachew, 2006). According to Petrov and Titkov’s panel analysis (2005), the northwestern region is at the top list of the regions ranked according to their level of democratic governance, while the southern region appeared to have much lower democratic governance scores. It is important to understand the factors accounting for these differences and explore whether EU-related influences have the same effects in both regions.

The EU is seeking to extend its influence and democratization processes in wider Europe and avoid dividing lines along its borders without further enlargement by proposing an alternative to membership, as Prodi called it offering ‘everything but institutions’. This study is important as it assesses the possibility of such an alternative and evaluates the effectiveness of the EU’s extended influence and internal factors that impede EU-related transformations.

Although such countries as Russia and Belarus can be characterized as rather authoritarian, they are no longer closed systems like they were during the Cold War. The borders are open, and ideas, norms and practices penetrate into the systems and change them from the bottom up. However, this penetration might occur with different intensity. In addition, certain structural, geopolitical, and ideological conditions are necessary for the effective transfer and acquisition of democratic ideas and practices and norms of good governance. Besides, there are internal and external limitations to such exogenous influences and it is important to take them into account to be able to understand and predict the outcomes of the EU –induced processes in the wider Europe. This study takes all these aspects into account and develops a model for regional integration in wider Europe, which is based both on EU external influences and peculiarities of local environment.

C. RESEARCH QUESTIONS AND HYPOTHESES

This dissertation develops a series of research questions and tests several research hypotheses in order to answer these questions.

Research questions:

What factors account for the variation in the level of democratic governance in the Russian regions?

What factors account for the difference in the levels of democratic governance between the Russian northwestern and southern regions?

How (through which mechanisms) do the EU-Russia regional cooperation processes influence democratic governance and policy-making in the Russian northwestern and southern regions?

Research hypotheses:

(1) Variation in the levels of democratic governance in the Russian regions can be explained by several factors, among which are the amount and scope of cooperative initiatives with the EU and energy, meaning the existence of oil and gas resources in the regions, the dependence of regional budget on the revenues from the energy sector, and the number of energy companies operating in the regions.

(2) Higher levels of democratic governance in the northwestern region than in the southern region can be explained by the following factors:

A. Effective functioning of the dense and decentralized network of public, economic, and civil society actors involved in the EU-Russia regional cooperation.

I hypothesize that by being involved in cooperation network with the regions of established democratic EU member-states, the northwestern region follows the policy-learning model, adopting some of the good governance practices and democratic norms and values of its partners. Additionally, EU-Russia regional cooperation network creates intense civic connection, or social capital, in the region, which comprises trust, reciprocity, and community engagement by disseminating information, connecting citizens, enabling direct participation of people and their organizations in regional policy processes; improving the quality of representation (in provincial governments) and the relationship between representative –constituency, and enhancing motivation for people’s participation.

B. Compared to the southern region, low availability of oil and gas resources, and as a consequence, absence of energy exploration and production activities.

C. Fragmented and decentralized network of energy companies and provincial administrations.

Respectively, abundance of energy resources, highly centralized network of energy companies and provincial governments and less effective regional cooperation network account for the lower levels of democratic governance in the southern region.

There are several factors that may explain why the social and governance infrastructures are different in the northwestern and southern regions and why the regional cooperation network with the EU is more effective and developed in the northwestern region:

Historical factor: the northwestern region has had a long-term democratic tradition starting from Novgorod-the-Great 9th century polity, while the southern region became part of Russia in the 17-18 centuries in the course of the expansion of the Russian empire, suffered from different non-European influences and has historically developed more autocratic forms of governance and power.

Ethno-cultural homogeneity: northwestern region is ethno-culturally homogeneous-composed of predominantly Slavic population, which is part of the common European ethno-cultural and linguistic heritage. At the same time, the southern region is composed of more than 80 ethnicities belonging to different cultural, language and ethnic groups different from the European ones.

Geopolitical factor: due to its geographic location, the northwestern region has historically been part of Northern Europe and has been extensively involved in European trade and governance structures, while the southern region is located in a very diverse environment

further away from Europe, has historically been much less oriented towards Europe and has experienced a variety of external non-European influences.

Economic factor: the southern region has abundant oil and gas resources and has a resource-based economy, while the northwestern region has a much more diversified economic structure with a considerable economic interdependence with Europe (especially Northern Europe), and according to different analyses, is heavily involved in European trade and investment infrastructures.

II. EU-RUSSIA SUB-NATIONAL INTEGRATION FRAMEWORK

A. OVERVIEW OF EU-RUSSIA RELATIONS

Theoretically, the EU-Russia relationship is strategically important for both parties, but in practice interaction between the two sides was quite superficial for a long time. The relationship between the two parties has become much more dynamic since the fall of the Soviet Union in 1991, and increased interaction resulted in a series of important cooperation agreements such as the Partnership and Cooperation Agreement of 1994, Common Strategy of the European Union and Russia of June 4th, 1999, and the EU-Russia Four Common Spaces of 2003.²

However, recently a number of serious tensions have strained the relations between the two parties: disagreements over frozen conflicts in the South Caucasus and Moldova and Kosovo's independence, criticisms by the EU directed at Moscow for its human rights record and issues of media freedom and democracy, Moscow's harsh criticisms of the US plans to build missile defense shields in Poland and Czech Republic, and energy issues. "When taking into account Russia's enormous geopolitical significance for the entire EU area as one vast continent-sized buffer between Europe and Asia..., that is both a market for Europe and a potential zone of stability protecting Europe... and, conversely, the EU's absolute vital importance for Russia as the world market integration avenue, the democratic institution-building frame of reference, etc., it becomes clear that EU-Russia relations ought to be far more intimate and dynamic" (Skak, 2005).

² The EU-Russia Archive; official documents and declarations, 5

The EU-Russia actual partnership started in 1994, when Russia and the EU signed a Partnership and Cooperation Agreement (PCA), which, however, only entered into force in December 1997 because of the first Chechen war. The PCA covered a wide range of cooperation sectors. “Under it, Russia received Most-Favored- Nation (MFN) status, whereby no quantitative limitations are applied except on exports of certain steel products, representing less than five per cent of bilateral trade” (Sutela, 2005). The PCA laid out prospects for free trade between the EU and Russia sometime in the future. Various cooperation institutions were created under the PCA such as Cooperation Council at the foreign ministerial level that was later transformed into a Permanent Partnership Council; a Political and Security Committee with the Russian ambassador in Brussels, and expert-level subcommittees covering different areas of cooperation.

At the EU-Russia St. Petersburg Summit of 2003, four road maps - economy; external security; freedom, security and justice; and education, research and culture – were designed to deepen cooperation between the two parties.³

As far as the Common Economic Space is concerned, its main objectives are to gradually remove all barriers for bilateral trade and investment and enhance the development of market economy in Russia through the approximation of legislation and the harmonization of technical standards. Schuette (2004) argues that modernization of Russia is highly dependent on the country’s cooperation with the economically and technologically advanced West, in particular with the EU, which is Russia’s first trading and investment partner. According to the intensity of the dialogue in the economic field in such areas as trade, investment, and energy, there is considerable economic interdependence between the EU and Russia. However, in practice, there are certain inequalities in the EU-Russia economic relations and this interdependence is rather asymmetrical.

³ EU/Russia: The four common spaces, EU-Russia relations archive

For instance, when it comes to foreign direct investment, companies from the EU member states are the major foreign investors in Russia; however, opportunities for Russia's investors in European economies are largely restricted due to political issues. As far as total trade volumes are concerned, the EU is Russia's main trading partner, while Russia is only the EU's fifth trading partner behind the US, Switzerland, China and Japan. The EU-Russia trade relations are rather asymmetrical with fuel and other natural resources representing the bulk of Russian exports in contrast with finished industrial and consumer goods imported from the EU.

Energy is a very sensitive aspect in the EU-Russia relations, which is both economic and political. In 2005, the EU imported approximately 55% of its energy needs⁴. That figure is expected to rise to 70% by 2030. More than 50% of the EU's imported energy in the form of oil and natural gas comes from Russia⁵. It is not only that Europe is dependent on Russian oil and gas supplies and this dependence is expected to grow; but also that Russia has considerable control over the major pipeline supply options, especially, in the Caspian region, Caucasus, and Central Asia. Furthermore, various scholars claim that Russia uses EU's dependence on its energy supplies as a political and economic leverage (Bugajski, 2004). Since 1991, the energy lever has been used for putting economic pressure on Estonia, Latvia, Lithuania, Ukraine, Belarus, Moldova, Georgia that subsequently affected most of Europe⁶. Russia has also used its energy as a tool to play EU member states off against each other. For instance, in the case of the Baltic Sea pipeline construction, Russia insisted on excluding Poland and Baltic states from the project, which antagonized them and strained their relations with Germany, the primary beneficiary of the project from the EU side. Some analysts claimed that Russia excluded Poland

⁴ "Geopolitics of EU energy supply", March 23, 2006, Available at: <http://www.euractiv.com/Article?tcmuri=tcm:29-142665-16&type=LinksDossier>

⁵ Ibid

⁶ Ibid

and Baltic states from the project because of their ‘unfriendly policies’ towards Russia (Voevodin, 2006). Therefore, the EU is very cautious and critical about Russia’s new energy-related assertiveness in Eurasia.

The principles underlying the Common Space of Freedom, Security and Justice include democracy, the rule of law, respect for human rights and fundamental freedoms, including free and independent media and the effective application of common values by independent judicial systems.⁷ Cooperation in this space is related to the adoption of agreements on readmission and visa facilitation, which are supposed to promote and foster greater contact between the citizens of the EU and Russia via travel and tourism as well as facilitate business and official travel. The European Commission mentioned the benefits of facilitated travel for all Europeans and agreed to continue to examine with Russia the conditions for visa-free travel as a long-term perspective.⁸ The regular EU-Russia consultations on human rights, which were launched in March, 2003, fall within this space, as does cooperation on combating terrorism, organized crime and corruption. Human rights and freedom of press in Russia are the most sensitive aspects of this field of cooperation as the EU is becoming increasingly concerned with Russia’s side-tracking on these aspects of democracy.

The Common Space of External Security has been created to enhance EU-Russia cooperation to resolve the lingering frozen conflicts in Europe (Transdniestria, Abkhazia, South Ossetia, Nagorno-Karabakh) in accordance with the OSCE commitments.⁹ However, recent developments in the Caucasus and the war with Georgia created significant tensions in this aspect of EU-Russia cooperation.

⁷ For more information, see the EU press release, available at http://www.eu-un.europa.eu/articles/fr/article_4660_fr.htm

⁸ Ibid

⁹ Ibid

The Common Space of Research and Education, including cultural aspects, is generally considered less politicized and most successful area of cooperation. It aims at intensifying cooperation and integration of the E.U. and Russian research communities and strengthening cultural and intellectual heritage by identifying key measures to promote economic growth based on modern technology and strengthen competitiveness, reinforce links between research and innovation, encourage close cooperation in the field of education - including the convergence of university course formats and qualifications - and promote cultural and linguistic diversity.¹⁰ In 2003, Russia has also become part of Bologna process, the creation of the European Higher Education Area by making academic degree standards and quality assurance standards more comparable and compatible throughout Europe, in particular under the Lisbon Recognition Convention.

Cooperation in the EU-Russia four spaces capitalizes on the previous achievements as well as outlines new areas of interaction and provides a framework for intensified dialogue in the new sectors of cooperation. However, some scholars are quite skeptic about the Four Common Spaces agreement due to the fact that it is too broad, does not reflect the actual state of relations between the two parties in certain areas, and does not specify any convergence criteria. Emerson (2005) even calls it ‘a manifestation of the proliferation of the fuzzy’ as, according to him, the four common spaces are a weaker and fuzzier derivative of the E.U. neighborhood policy, “giving only token attention to democracy and excluding explicit reference to EU norms as the reference for Russian-EU convergence”.

¹⁰ For more information, see Overview of EU-Russia relations, available at http://www.europarl.europa.eu/meetdocs/2004_2009/documents/fd/deea20050523_11/deea20050523_11en.pdf

B. NORTHERN DIMENSION AND BLACK SEA SYNERGY REGIONAL COOPERATION INITIATIVES

The Northern Dimension (ND) is a regional cooperation initiative in the European Union regarding the cross-border and external policies covering Nordic countries, countries surrounding the Baltic Sea and the northwestern region of Russia.¹¹ The Northern Dimension covers a broad geographic area (Figure 1) from the European Arctic and Sub-Arctic areas to the southern shores of the Baltic Sea, including the countries in its vicinity and from northwestern Russia in the east to Iceland and Greenland in the west.¹²



Figure 1: Northern Dimension

ND addresses the specific challenges and opportunities arising in the region and aims to strengthen dialogue and cooperation between the EU and its member states, the northern

¹¹ For more information on the Northern Dimension, see http://ec.europa.eu/external_relations/north_dim/

¹² The northwestern region of Russia that is included in the Northern Dimension is usually represented by all the northwestern provinces of Russia that are part of the administrative northwestern region of the Russian Federation, except for the Nenets Autonomous Okrug and Komi Republic.

countries associated with the EU under the European Economic Area (Norway and Iceland) and Russia.¹³ It covers a wide range of sectors, such as transport, the environment, nuclear safety, justice and home affairs, cooperation in the field of culture, the fight against organized crime, health care, nongovernmental cooperation and civil society development, the promotion of trade and investment, economy, business and infrastructure, cross-border cooperation, information technology, science, education and research.

The Northern Dimension is financed from multiple sources including budgets of individual countries and regions of participating countries (including Russian sources), EU financial instruments (such as INTERREG and other CBC programs aimed at developing cross-border cooperation and TACIS-technical assistance program, currently substituted by the ENPI instruments), international financial institutions (e.g. European Bank for Reconstruction and development (EBRD), European Investment Bank (EIB), Nordic Investment Bank (NIB)), and the private sector. The principle of co-financing from Northern Dimension partners (including Russian public and private actors) provides for equality in cooperation processes as the EU actors are not performing the function of ‘donors’ or ‘developers’, but are engaged in cooperation that is created for the mutual benefit and interest of all the actors involved.

The biggest and most important achievements of the Northern Dimension are the Environmental Partnership (NDEP) and the Partnership for Public Health and Social Wellbeing (NDPHS). Within these partnerships, all participating countries are equal and all contribute to them financially. According to the Northern Dimension Information System (2006), over 500 big projects were concluded, ongoing or under preparation within the frames of the Northern Dimension at the end of 2006. Besides, it is important to note that many regional actors from the

¹³ For more information, see the Russia and Eastern Neighbors report, available at http://ec.europa.eu/environment/enlarg/russianis_en.htm

countries and regions covered by the Northern Dimension established contacts on their own and got engaged in joint initiatives and projects of various kinds supported by their own resources with only partial support from the ND instruments or even without adhering to the ND instruments. Taking into consideration this phenomenon, there is a multitude of partnerships, projects, investment initiatives, business deals, and exchanges of all kinds binding the territories covered by the Northern Dimension together.

In addition, there are several so called ‘Euroregions’ in the Northern Dimension that represent special politically and economically integrated cross-border zones between Russia and the EU. According to Liikanen (2005), the concept of the Euroregion was first applied to the Dutch-German border in the 1960s, and later became a common model for advancing regional cross-border cooperation along the internal borders of the EU. With the enlargement of the European Union and the development of the European integration, the concept of Euroregions was extrapolated to the EU external borders and became an important instrument for the facilitation of the European integration and coordination of cross-border programs, activities, and partnerships.

The first Euroregion binding Russian and EU borders was Euroregion Baltic (ERB) that was established in 1998 and represented an enhanced political and economic cooperation in the south-east of the Baltic Sea region, consisting of eight regions of Denmark, Lithuania, Poland, Russia and Sweden. The main aims of the ERB have been improving life conditions for its inhabitants, promoting bonds and contacts among local communities, and providing measures for a more sustainable development within the region.¹⁴ Comprising the regions from different EU member states and Russia, Euroregion Baltic “constitutes the operational network of substantial

¹⁴ For more information on the Euroregions, see the complete list of Euroregions, available at http://www.merit.com/espon_scenarios/visions_euroregions.htm

and effective links across the borders, facilitating the promotion of political dialogue and reform, as well as sustainable, economic, social and environmental development, and thus strengthening local democracy and fostering people-to-people contacts between civil societies; the cooperation actively involves both local and regional authorities, private and public sectors, and NGOs”.¹⁵

At present, there are 9 such Euroregions between Russia and the EU: Baltic, Karelia, Neman, Saule, Sesupe, Peipsi, Latvia-Pskov, Estonia-Pskov, and Council of Cooperation of Border regions. Euroregion Neman represents political and economic cooperation between certain regions of Poland, Lithuania, Byelorussia, and Russia. Saule- Lithuania, Litva, Sweden, and Russia. Sesupe –Kaliningrad, Poland, and Lithuania. Peipsi- Estinia and Russia. Latvia-Pskov- Russian Pskov province and bordering regions of Latvia. Estonia-Pskov - Russian Pskov province and bordering regions of Estinia, Council of Cooperation of Border regions – Russia, Estinia, and Latvia. And Euroregion Karelia is political cooperation between the Russian republic of Karelia and the bordering regions of Finland. Euroregions also play an important role in the implementation of the Northern Dimension policies. Figure 2 gives a visual representation of all the existing Euroregions in the Northern Dimension.



Figure 2: Euroregions¹⁶

¹⁵ For more information on the Baltic Euroregion, see <http://www.euroregionbaltic.eu/background.php>

¹⁶ Interactive map of all the ND Euroregions is available at <http://www.norden.lt/templates/map/index.html>

Administratively speaking, Euroregions have different organizational structures, but usually they include some sort of steering committee composed of regional and local authorities (Liikanen 2005). Liikanen (2005) discussed the importance of the Euroregion Karelia, which can be extrapolated to all the existing Euroregions between the EU and Russia: Euroregions are unique and important instruments of integration as they “reflect the simultaneous internationalisation and regionalization” of the EU-Russian borders and they “mediate between supranational, national and regional patterns of interaction”.

Another important achievement of the Northern Dimension is a special agreement between the EU Commission and Russia’s Ministry for Regional Development concerning regional cooperation and regional development. In May 2007, the parties signed an agreement that helped to establish and support direct legal agreements between the regions of the EU and the Russian provinces in the border regions, bypassing national governments.¹⁷ The northwestern region of Russia, with St. Petersburg at its political and economic center, was set to become the test ground for the new forms of direct inter-regional agreements between Russia and the EU. The possibility to engage in direct administrative partnerships with the regions of the EU countries shows a completely new Russian and EU approach to regional cooperation.

Another regional cooperation initiative involving a Russian region (southern region) is the Black Sea Synergy.¹⁸ The Black Sea Synergy is a recent initiative and it complements already existing regional cooperation policies of the EU (like TACIS, ENPI and CBC) and the EU member states in the Black Sea region. The Black Sea Synergy specifically focuses political attention at the regional level and aims at invigorating ongoing cooperation processes. The

¹⁷ For more information, see the article in St Petersburg Times, available at http://www.sptimes.ru/index.php?action_id=2&story_id=22120

¹⁸ For more information on the Black Sea Synergy, see http://ec.europa.eu/external_relations/blacksea/index_en.htm

primary task of this new initiative is therefore the development of cooperation within the Black Sea region and also between the region as a whole and the European Union. The Black Sea Synergy also aims at linking and coordinating regional and local initiatives so as to prevent multiple initiatives working disjointedly towards the same goal. It is focused on supporting and enhancing various projects, programs, partnerships and initiatives between the southern Russian and European actors by identifying synergies of various partners and basing work on previous experience in the region rather than duplicating efforts. Cooperation in the Black Sea Synergy covers a wide range of sectors starting from trade, economic cooperation, business and investment and ending with environment and civil society development and culture.

The Black Sea Synergy (Figure 3) completes the ‘chain’ of regional cooperation frameworks in the EU’s neighborhood, adding to the Euro-Mediterranean Regional Partnership and the Northern Dimension.

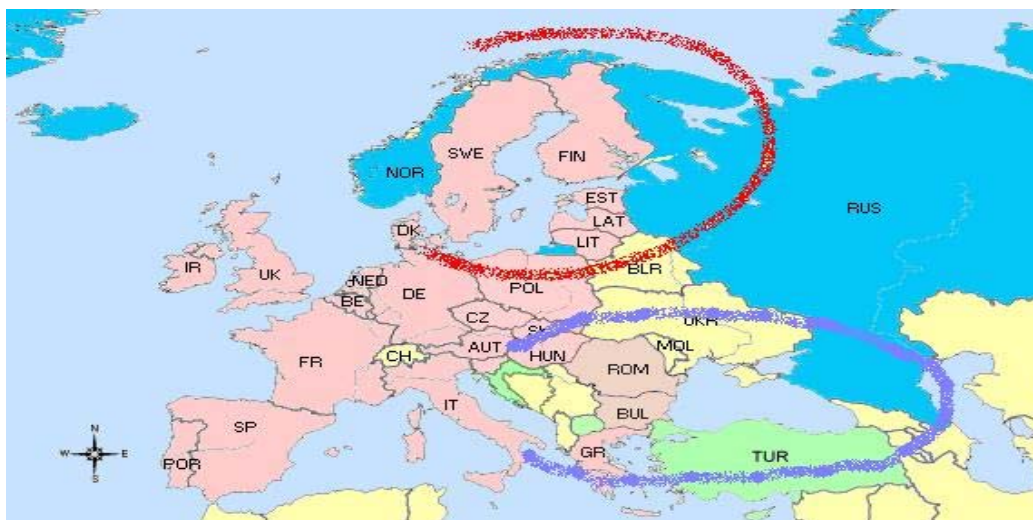


Figure 3: Black Sea Synergy (blue)

Therefore, Russia with its northwestern and southern regions is involved in two EU regional initiatives: the Northern Dimension and the Black Sea Synergy. Both the northwestern and southern regions are important for Russia in terms of regional and cross-border cooperation with the EU, and they are also the transit points of oil and gas to Europe, which is Russia's main energy market. The main difference between the northwestern region and the southern region in respect to energy though is that the southern region is very rich in oil and gas resources and there is already a significant production and exploration activity in the region, while the northwestern region lacks significant energy resources and resources available in the Arctic are only potential due to the extraction difficulties. Figure 4 displays oil and natural gas exploration and production activities in Russia.

Oil and Gas in the Russian regions

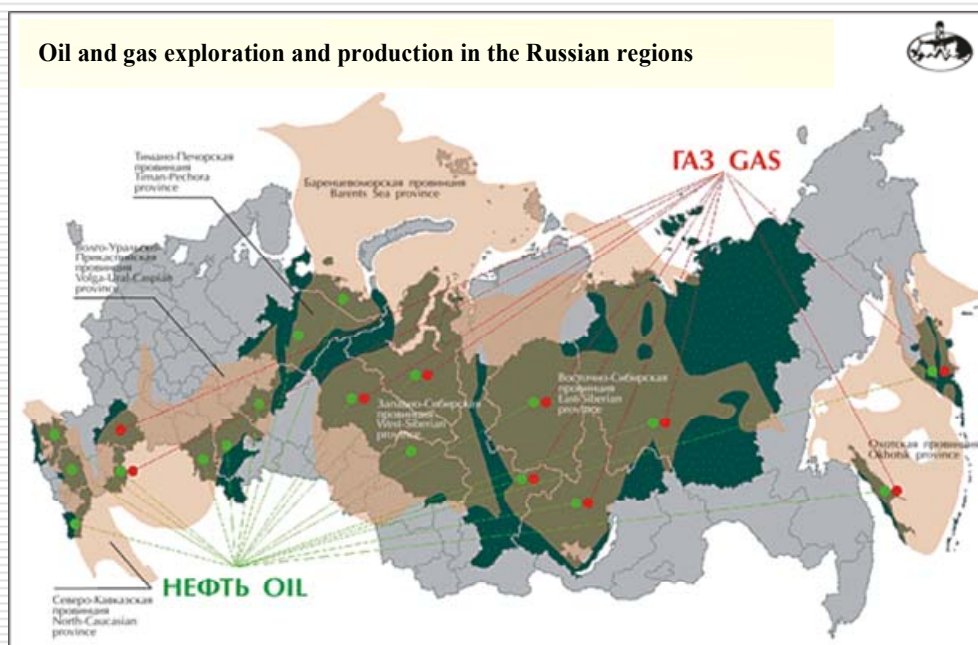


Figure 4: Oil and Gas in the Russian regions

Energy issues are recognized as strategically important both for Russia and the EU and constitute a separate domain both in the Northern Dimension and the Black Sea Synergy. However, the main declared goals of the two regional initiatives are enhancing stability, stimulating democratic and economic reforms, and improving governance in the EU neighboring countries.¹⁹

Scholars of the regional cooperation mention that the regional cooperation between Russia and the EU is much more dynamic, productive and effective than the cooperation processes occurring at the national—supra-national political level (Obydenkova, 2006; Prozorov, 2004).

C. COMPLEX ADAPTIVE SYSTEMS, NETWORK GOVERNANCE, EU EXTERNAL GOVERNANCE AND RUSSIA

1. Complex Adaptive Systems and Network Governance

Public administration and public policy scholars have long considered governance to be important for the well-being of a country's citizens. However, governance was traditionally associated with government, with the exercise of power by political leaders (Kjaer, 2004). Public administration paradigms were challenged by new social, political and economic realities, and there has been a considerable evolution of the concept of government: Wilson's dichotomy of politics and administration was challenged by discretion exercised by administrators in policy design, Taylor's scientific management and the effort to translate administrative problems into

¹⁹ Black Sea Synergy section of EU external relations, available at http://ec.europa.eu/external_relations/blacksea/index_en.htm; and on the Northern Dimension see http://ec.europa.eu/external_relations/north_dim/index.htm

technical–rational domains was only sometimes successful, and Weber’s strict hierarchy was significantly challenged by the total quality management movement, the ‘reinventing government’ tendency, and the move to devolve authority by involving employees in policy-making (Fox and Miller, 1995).

Governance was not used as a separate concept until 1980s. As the world became more global economically and politically, new actors entered the arena of public policy and administrative issues spilt across territorial boundaries, the concept of governance acquired a new meaning, now referring to something broader than government and including policy processes and actors outside the narrow realm of government (Kjaer, 2004).

Yet no common definition of governance seems to emerge in the literature and different scholars give different approaches to governance. Some governance theorists still identify governance closely with government: “governance is the capacity of government to make and implement policy, in other words, to steer society” (in Pierre and Peters, 2000, p.1). This definition concerns traditional capacities of governments to steer from the top down and exert power and control over social and economic activities. From an institutional perspective, governance is about affecting “the frameworks within which citizens and officials act and politics occurs, and which shape the identities and institutions of civil society” (March and Olsen, 1995, p. 6). Hyden (1999, p. 185) approaches governance from a rule-based perspective; he defines governance as “the stewardship of formal and informal political rules of the game”. According to the scholar, governance is about “setting the rules for the exercise of power and setting conflicts over such rules”.

Marcussen and Torfing (2007) differentiate between ‘government’ and ‘governance’. According to them, the term ‘government’ is related to the formal state institutions that are

commonly divided into legislative, executive and judicial branches, but at the same time unified by their joint monopoly of legitimate, coercive power. 'Governance' refers to more or less deliberate attempts to govern particular policy areas through negotiated interaction between a multiplicity of actors, processes and institutions.

More and more scholars start to argue that public administration in the 21st century is facing a problem that no governmental agency has full responsibility or the leverage to solve public and societal problems. According to Kettl (2002), the contemporary policy world has become more complex and the traditional hierarchical and authority-based administration system can no longer provide a guide to help governments resolve complex problems. Peterson (2003) discusses a similar idea that modern democratic governance occurs only rarely via traditional Weberian hierarchies or pure 'markets'; rather, public policies are made via some kind of hybrid arrangement involving a wide range of different actors, including private and civil society sector actors.

Recently, various public policy and public administration scholars have tried to tackle the problem of complexity of governance by a set of perspectives or frameworks called complex adaptive systems (CAS), which represents a systemic and a relatively new way of explaining the world and the world's structures (Holland, 1995; Axelrod and Cohen, 1999; Watts, 2003; Comfort, 2002; Anderson, 1999 among others). The proposed theoretical framework is based on three different fields: evolutionary biology (adaptation through selection and reproduction), computer science (engineer perspective on how systems can be designed to work together) and social design (mostly structuralist aspects of organizational theory and strategic aspects of game theory). Complex adaptive systems approach treats universe as a non-linear entity; authors working in CAS framework claim that the simple rules of cause and effect adopted by the

bureaucratic paradigm do not work and it is not possible to understand the world by simply decomposing it into smaller parts, as the proponents of the classic public administration suggested.

According to complex adaptive systems, there are different systems in the world interacting with each other, for instance, administrative, environmental, and economic systems; those systems are complex and constantly evolve and change. And the key to understanding the way the world is structured is to take a holistic view of these complexities. Agents in complex systems constantly interact with each other thereby exchanging ideas, resources and information, and receiving feedback. CAS scholars claim that it is crucial to understand the relations and interactions between the agents and those interactions are more important than the properties of the agents (Fryer, 2008; Semitiel Garcia, 2006, p.8).²⁰

Complexity does not mean chaos, because chaos presumes disorder, whereas complexity still has structure and room for intervention and improvement (Edmonds, 1999). Though the world is a complex system, systems are nested within other systems and complexity has certain structure. And learning occurs through the interactions among agents and therefore the agents are able to initiate change and transform the whole system. One of the main questions asked by the public administration researchers and public policy scholars working in CAS tradition is how to manage complexity for improvement of governance (Comfort, 2002; Holland, 1995; Axelrod and Cohen, 1999). Complexity cannot be eliminated nor it can be absolutely controlled; it can only be understood, influenced and improved. Thus the authors assume that complexity can be an asset if we can understand its structure and dynamics (Holland, 1995; Watts, 2003). What we need to understand is leverage points and trade-offs of a complex system so that we can detect

²⁰ Complex adaptive systems is not only a new theoretical framework, but also a set of developed practical models that are now largely used by various practitioners, for more information see Piter Fryer's website: <http://www.trojanmice.com/index.htm>

the situations where there may be resistance to policy change or when small interventions may have large effects.

There are certain principles underlying the complex adaptive systems framework (Axelrod and Cohen, 1999):

- Agents interact with their environment, including other agents.
- Each agent has a strategy to respond to its environment and to pursue its goals.
- Agents change strategies according to their performance based on some measure of success.
- Copying is an important practice that affects agent's strategies.
- Different types of agents and strategies co-exist in a system.
- Systems have interaction patterns that determine which pairs of agents are likely to interact and which pairs are unlikely.
- A system is complex when there are strong interactions among its agents so that current events heavily influence the probabilities of later events.
- Systems can change through the change in agents and their strategies.
- If a change leads to improvement according to some measure of success, it is called adaptation.
- Complex adaptive system is the one that contains agents that seek to adapt.
- Change in agents and their strategies leads to change in the system, which in return changes the agents—co-evolutionary process.
- Complexity often results in features called emergent properties- properties of the system that the separate parts do not have.

Complex adaptive systems' approach to governance stipulates that socio-economic, political, and administrative systems are complex adaptive systems with feedbacks between multiple scales characterized by historical path-dependency, non-linear dynamics, and changing patterns of interactions among systems' agents (Baker and Eckerberg, 2008). According to CAS framework, for better interpretation of governance in contemporary world it is important to take into consideration different public-private-civil society partnerships, joint projects and initiatives, and collaborative programs, and patterns of interaction among different actors participating in these programs.

Kettl (2002) suggests 'governance' as a new approach for facing the public administration challenges in the 21st century. Today's problems transcend any boundaries

between public, private, and non-profit sectors and the distinction of problems between all three sectors have become difficult to recognize, that is why, according to Kettl, there is a need for a governance approach that acknowledges that all three sectors have to come together to solve problems. As public, private, and nonprofit organizations share in the delivery of public services, Kettl (2002) argues that there is a need for a model that encompasses this sharing and enhances the delivery of public services; such a model would take into consideration complex interorganizational networks that have been layered on top of hierarchical organizations and interorganizational processes that complement (or sometimes even substitute) traditional authority. Rhodes (1997, p.15) also discusses the 'new use of governance' and claims that in contemporary societies governance "refers to self-organizing, interorganizational networks characterized by interdependence, resource- exchange, rules of the game, and significant autonomy from the state".

The terms such as interorganizational networks, public-private-third-sector networks, and multi-level governance are now frequently used to describe the new ways of policy-making in the public sector (Powell, 1990). This new use of governance is referred to a multitude of different actors that have entered policy-making arenas and together with state actors and institutions participate in the authoritative allocation of values. Numerous scholars state that the new approach to governance involves a variety of actors from all the domains of social activity including private actors, markets and regulatory agencies, and civil society actors, and has to do more with how the center interacts with society and asks whether there is more self-steering in networks (Peters and Pierre, 1998).

Network governance scholars claim that the discussion about governance is best understood as part of a wider debate about the growing porosity of national borders and its

possible consequences for political authority (Marcussen and Torfing, 2007). According to Pierre and Peters (2000), the traditional political authority has become largely displaced and fragmented as a result of political and economic globalization and regional integration processes. The epicenters of politics may no longer have clear geographic orienteers, because “the symmetry between traditional territorial boundaries and political authority that used to define politics is being undermined” (Della Sala, 2001).

Various public policy and public administration scholars (Pierre, 2000; Pierre and Peters, 2000; Strange, 1996; Cox, 1997) discuss the concept of a decline of the state, which occurs due to the new challenges to nation states such as transnational and sub-national forces and nongovernmental organizations and other parts of civil society. The fragmentation is reflected in the blurring of the boundaries between public and private realms, which are sometimes seen as obsolete domains preventing from finding appropriate solutions to emerging policy problems. Scholars claim that thinking in terms of binaries such as state-society or public-private is outdated and constitutes a possible obstacle to governing. Hirst (2000) calls this a “post-political search for regulation and accountability”.

Network governance proponents claim that conditions in contemporary world lead to the conclusion that we need to find more flexible and indirect forms of governance to respond in a timely way to rapidly changing economic and social conditions (Ruzza and Sala, 2007). Different scholars and researchers emphasize that the large part of the regulation can now be carried out by a broad range of new actors in new policy arenas that do not fit in well with the hierarchical organization of political power associated with national governments (Della Sala, 2001). Marcussen and Torfing (2007) argue that “modern society is subject to an ongoing differentiation process that results in the proliferation of an increasing number of relatively

autonomous systems, sectors and organizations”. Consequently, policy problems become more and more complex and the attempts to solve them face a series of contradictory demands and dilemmas. Many theorists tend to see the increasing prominence of governance networks in public governance as a functional response to the increasingly complex, fragmented, and dynamic character of the contemporary world.

Modern governance, therefore, requires the information of complex adaptive systems of interorganizational interaction and coordination. For instance, Louise Comfort’s ‘Cities at Risk: Hurricane Katrina and the Drowning of New Orleans’ (2006) offers observations and recommendations for both local and federal public officials for preventing other cities from the failures that occurred in the management of the hurricane Katrina crisis. The recommendations include creating a model of civic engagement that includes participation of not only citizens, but the private sector and non-profit organizations and that establishes effective communication and coordination among different actors in varying states of emergency.

According to the network governance model, the state does not withdraw from the policy-making arena and become completely impotent; rather it “loses the capacity for direct control and replaces control function with a capacity for influence” (Peters and Pierre, 1998). In the network governance approach, government actors are conceptualized in a continuous process of interaction and communication with the members of the relevant networks and governance is accomplished through complex decentralized structures of private, public, and civil society actors. Sorensen and Torfing (2005) define ‘governance network’ as

- a relatively stable horizontal articulation of *interdependent* , but operationally *autonomous* actors who interact through *negotiations* that involve bargaining, deliberation and intense power struggles;

- which take place within a *relatively institutionalized framework* of contingently articulated rules, norms, knowledge and social imaginaries;
- that is *self-regulating* within limits set by external agencies and
- which contribute to the production of *public purpose* in the broad sense of visions, ideas, plans and regulations.

Reinicke and Deng claim that a typical governance network “combines the voluntary energy and legitimacy of the civil society sector with the financial muscle and interest of the business and the enforcement and the rule-making power and coordination and capacity-building skills of states and international organizations” (Reinicke and Deng, 2002).

According to Sorensen and Torfing (2005, p. 197), governance networks can take many different forms: “they can either be self-grown or initiated from above. They might be dominated by loose and informal contacts or take the form of tight and formalized networks. They can be intra- or interorganizational, short-lived or permanent, and have a sector-specific or society-wide scope. The multiple forms of governance networks attest to the broad relevance of the concept for describing contemporary forms of societal governance.” Some scholars take a more narrow approach to governance networks specifying that they usually represent clusters of interconnected actors in a specific policy arena (policy network) with each actor having influence over policy-making processes and interested in policy outcomes (Peterson, 2003; Wright, 1988).

From a functional perspective, the main goal of network governance is “to create a synergy between different competences and sources of knowledge in order to deal with complex and interlinked problems” (Dedeurwaerdere, 2005). Governance networks emerge for a variety of reasons instigated by the necessity and willingness to cooperate (Alter and Hage, 1993).

Network governance approach interprets policy making as the result of complex interactions among policy actors at different policy arenas, and assumes that the patterns of these interactions explain policy outcomes (Kenis and Schneider, 1991). According to the network governance literature, modern society is functionally differentiated and complex interorganizational networks control significant resources in different policy sectors and have an important impact on the design and implementation of public policies (Marsh, 1998).

In the literature on network governance analysis, policy network is usually used as the main unit of analysis, but scholars differ on several methodological aspects including nomenclature, characteristics of relationships among network agents, and the importance of structure versus agency, whether agents are individuals or organizations, and whether to treat policy networks as independent or dependent variables (Mikkelsen, 2006). There is extensive criticism of contemporary policy network analysis due to the existence of these methodological differences and the debate on the importance of policy networks (which networks are important and which are not). Additionally, network model raises serious questions about appropriate measures of efficiency and accountability of overall network governance.

As far as efficiency is concerned, due to competing interests, self-organizing networks can block implementation and become inefficient in delivering public good, or they can increase efficiency by cooperating in policy implementation. Pierre and Peters (2000) claim that in the new governance theory, networks can have both negative and positive impacts on steering capacity. This leads to a concern raised by all the approaches to governance: how to steer, but also how to improve accountability. According to Pierre and Peters, in this respect governance resurrects an old discussion about the relationship between legitimacy and efficiency.

As far as accountability is concerned, networks can be extremely hard to hold accountable; thus their strength that they blur boundaries and can change rapidly to meet changing social, economic and environmental conditions can turn out to be their major weakness. For instance, European Union networks are often criticized for the lack of accountability and democratic deficit: there are many instances when EU networks allowed more powerful stakeholders to succeed over smaller, often less experienced and resourced agents (Mitchell, 2005). “This is due to the lack of formal structure inherent in the negotiations among EU institutions and regional or local actors. With so many actors and institutions contributing to the EU processes of policymaking, it becomes difficult to hold any one player accountable” (Mitchell, 2005).

Another critique of the network governance model is that it seems to be most relevant in the European Union’s multi-level governance context and it might lack applicability to many other contexts. While the network model might be working in the European context, in other contexts, as Olsen argues, bureaucracy overlaps and coexists with more contemporary market and network organizations and still retains significant control and regulatory power (Olsen, 2005).

Another important issue is that depending on cultural and historical experience different countries have different views on network governance. For instance, according to Marcussen and Torfing (2007), in Northern and Western Europe and within the European Union, governance networks are increasingly seen as an effective, efficient and legitimate way of designing and implementing public policy. At the same time in Southern and Eastern Europe, many people look at EU governance networks with suspicion. In Southern Europe, people used to associate networks with clientelism, nepotism, corruption and mafia techniques, whereas in Eastern

Europe people often associated networks with the informal influence of elites and old communist cliques and old communist traditions.

However, despite all the legitimate criticism, it is generally accepted that in some cases it is crucial to apply network governance model to the analysis of the complex structures of interaction among various policy actors involved in solving evolving complex economic, social, political, and environmental problems to be able to grasp the complexity of policy processes and accurately explain and predict policy outcomes.

2. EU External Governance and Russia

The literature on the EU governance distinguishes two types of governance: internal and external (Peterson, 2003; Schimmelfennig and Sedelmeier, 2004). The internal dimension concerns the design, formulation and implementation of public policies within the EU, while the external dimension is related to the export of the EU standards and policies to non-member states. Scholars who deal with the analysis of the EU-related democratization and governance transformation processes in candidate and accession countries are mostly concerned with the external dimension of EU governance.

Scholars of the external dimension of EU governance discuss two aspects of external governance (Schimmelfennig and Sedelmeier, 2004). The first aspect concerns the question of how the policy transfer happens, for example, through which governance mode the policy is transferred or which form it takes. The second is related to the transfer of the particular EU governance model, network governance, which is identified as characteristic of the EU (Stephen, 1997). Therefore, the second aspect is related to “the substance of governance modes, and to what extent these affect policy-making processes and relations between actors in external states”

(Schimmelfennig and Sedelmeier, 2004). This dissertation focuses on the second aspect of the EU external governance.

As mentioned above, networks are a distinctive form of governance and refer to governance structures that take the form of interconnected private, public, and civil society actors that interact in a horizontal and coordinated manner. Analysts of EU network governance are focused on explaining policy outcomes “by investigating how networks, which facilitate bargaining between stakeholders over policy design and processes, are structured in a particular sector” (Peterson, 2003).

Hay (1998) defines EU governance networks as “strategic alliances forged around common policy agendas of mutual advantage through collective action”. Agents pursue strategies, which in turn have an impact on the structures in which agency takes place. Agents pursue strategies not in a static manner, but are involved in strategic learning, in a process of developing awareness of structures and constraints or opportunities in those structures. Structures on their part are strategically selective, favoring certain strategies above others (Hay, 1998).

While EU network governance is widely studied within the EU political space, the academic field of EU studies still pays limited attention to the EU’s role as a network player in the policy-making processes in external states. Lavenex (2008, 2004) explores the modes of EU’s policy transfer to non-EU member states and argues that the scope and shape of policy transfer is conditioned on the institutional links between the EU and the non-candidate countries. However, besides institutional links, the EU is deeply involved in all sorts of cooperation projects with the neighboring states, and this cooperation is functioning in the mode of network structures composed by complex interactions among public sector actors, nongovernmental organizations, businesses, educational institutions, and other actors involved in cooperation

projects. There have been very few studies of how these cooperation networks affect policy making and influence relations among policy actors in the non-EU member states. Almost no research has been conducted to account for the effects of the EU-related networks on the policy making in non-member states at the sub-national level.

Tiirmaa-Klaar (2006) asserts that more attention should be given to EU network governance in respect to non-candidate countries and gives an example of how the European Neighborhood Policy facilitates cooperation within the networks between the EU and non-EU actors and enhances the advancement of democratic governance in EU neighboring states and regions.

Klitsounova (2006) argues that Russia is becoming more and more involved in the European governance networks. She analyzes human rights policy networks and finds that the interactions and cooperation between human rights NGOs at both Russian and EU levels have created important venues for exchange of information, ideas, resources, and practices. According to her, “many Russian NGOs have become deeply involved, either directly or through their umbrella organizations, in pan-European human rights policy networks – where NGO, government and international organization actors share the rhetoric, the language, and scholarly discourses that shape the terms of public debate over human rights issues and underpin relevant policies.” She claims that at present, considerable number of Russian human rights organizations seems to be integrated into the European human rights space and to be working on projecting European norms and practices into Russia. As another example, Franz Kumpi (2005) claims that the EU plays an important role as a network actor in promoting democracy through social NGOs in Russia by creating links between governmental/municipal organizations and NGOs regarding the provision of social services to beneficiary groups.

Although Russia is not an EU-member state or a candidate country, it has become involved in the European integration processes under different frameworks and modes of cooperation. In the early 1990s, the EU TACIS (technical assistance to CIS countries) program enhanced Russia's transition to a market economy and established economic and social ties between Russia and the EU thereby creating conditions for Russia's integration into the common European space. The EU-Russia Partnership and Cooperation Agreement (PCA), the mutual cooperation strategies developed by each of the sides, and the EU-Russia Four Common Spaces framework provided basis for intensified interaction and cooperation between the two sides in a wide range of areas. Although at the national level certain political tensions sometimes slowed down cooperation, at the sub-national level cooperation has been evolving at a fast pace and according to different analyses has been more productive, concrete and specific than the work that has been done under the Moscow-Brussels agreements.

The provinces of the Russian Federation extensively participate in different EU projects and initiatives; and at present, there are more EU cooperation programs with the Russian regions than with Ukraine, Moldova and Belarus taken altogether.²¹ In addition to the EU programs and projects, which are specifically targeted at the Russian regions, Russia is also an important participant in the Northern Dimension and the Black Sea Synergy regional policies of the EU, where Russian provincial and regional governments, organizations, companies, educational institutions, and other regional actors are engaged in regional cooperation with the EU partners (a variety of actors residing in the EU member-states) and are linked together through participation in all kinds of cooperation projects.

Scholars who conduct comparative analysis of various regions within a country claim that connectedness among organizations and between organizations and local governments can

²¹ See EU External Delegation to Russia resources, available at <http://www.delrus.ec.europa.eu/en/index.htm>

substantially account for the variation in governance policies. For instance, Robert Putnam (1993) makes an intense comparative study of Italy's regional governments (north versus south), and argues that the success of regional governments and advanced democratic development in the north are associated with 'civic connection', 'a dense network of secondary associations.' Putnam asserts that the northern regions of Italy are characterized by a dense network of various civil society organizations and a strong dialogue between regional governments and organizations, which creates an 'active culture of civic engagement' and builds social capital in the regions; it also facilitates the workings of the society as a whole by creating 'horizontal ties of solidarity'.

The EU-Russia cooperation processes at the regional level are establishing links among Russian civil society organizations, companies, and educational institutions and their respective EU partners, and most important, among all these constituents and provincial and regional governments of Russia and the EU member states. It is important to explore whether these networks can increase the level of democratic governance in the Russian regions involved in the regional cooperation processes and whether differences in the composition, configuration, strength, maturity, and effectiveness of these networks can account for the variation in democratic governance between the northwestern and the southern regions. At the same time, it is important to explore local and regional factors that facilitate or inhibit regional cooperation between Russia and the EU. This is important for predicting the outcomes of the regional cooperation processes and future development of the regional cooperation, and social, economic, and political change in the regions.

3. Sub-national Integration Analytical Framework

There are several theoretical models that are relevant for the research on the democratic governance in the Russian regions in connection with the EU-Russia regional cooperation. However, their thorough investigation is not the main purpose of this study; rather they are provided for better conceptualization of the regional cooperation and sub-national integration phenomena.

First, certain aspects of the Europeanization theory (Morlino, 2002; Cowles, Green, Caporasso, and Risse 2001) can be applied to this analysis. According to the Europeanization framework, sub-national integration in the form of enhanced cooperation between the Russian regions and the EU may cause change at the domestic level as the regional cooperation networks between the Russian regional actors and European regional, national and supranational actors can allow for the gradual transfer of the EU democratic norms and values into the domestic sub-national politics.

Second, consideration of EU external governance models (Lavenex, 2008, 2004; Klitsounova, 2006; Tiirmaa-Klaar, 2006; Noutcheva, Emerson, 2005) can be helpful in understanding the EU's involvement in the regional decision-making processes through the modes of horizontal interaction between the EU and the Russian institutions.

Third, the aspects of the theory of regionalization (Obydenkova, 2006; Makarychev, 2000) stipulating that regions bordering foreign countries might be more prone to external influences can be helpful in explaining the development of the sub-national regionalism between the EU and the regions of Russia bordering the EU.

Fourth, Lankina and Getachew's (2006) geographic incremental theory of democratization is useful in connecting the EU's external influence in terms of assistance

programs and a region's geographic location (in respect to closeness to the EU) factors to internal sub-national democratization processes.

Based on these theories I develop sub-national integration analytical framework for the study of the EU-Russia relations at the regional level. The essential components of the framework are:

- The level of democratic governance in the Russian regions depends on the intensity and depth of a region's integration with the EU.
- Integration is driven by enhanced cooperation between the regions of Russia and the EU regions, countries, and institutions in the form of the complex networks of interaction among the EU and Russian public, private and civil society sector actors; therefore integration is treated as a bottom-up process rather than a policy imposed from the above.
- The density and the efficiency of the regional cooperation networks (therefore the intensity and depth of integration) depend on the regional social, ethno-cultural, historical and economic factors.

D. RESEARCH DESIGN

This dissertation employs multiple research methods: econometric analysis of longitudinal data, longitudinal interorganizational network analysis, multiple regression analysis using network data, and interviews. In general, it follows three pronged research methodology.

The first part of the analysis is focused on the longitudinal analysis of democratic governance in the 88 Russian provinces over the period of 13 years (1991-2004) and identification of the major factors that have statistically significant impact on the level of democratic governance in the provinces.

The second part represents an in-depth comparative longitudinal network analysis of the variables affecting the level of democratic governance in the Russian regions: EU-Russia regional cooperation and energy structures on the basis of the northwestern and southern regions. These regions are treated as units of analysis and contexts of analysis. I investigate within-region relationships among energy companies and provincial governments (energy network) and public, economic, and civil society regional actors participating in the EU-related regional cooperation processes (regional cooperation network) and compare the regions in respect to the effectiveness of these regional structures. Tilly (1984) called this approach ‘variation-finding’, in the sense of comparing the relationships between the same variables in different regional settings. The main strategy is to treat each region as a context that holds a set of embedded social, economic, and political structures relating to policy-making. Through the lens of the network analysis, I identify most central and powerful actors controlling the energy sector and regional integration processes at the regional level and examine the patterns of interorganizational interests, network centralization, network composition, and the probability of consensus and collective decision making in each region. I also explore the factors that affect and predict the positions of centrality and power in the regional energy and cooperation structures.

The third part of the analysis explores historical, cultural, geopolitical, and economic factors that explain the differences in the composition, evolution and development of regional cooperation and energy structures in the northwestern and southern regions based on the interviews with the regional public officials, cultural and business leaders, NGO representatives, professors, and energy sector representatives. The third part also discusses important questions concerning the breadth of organizational interests in the regional policy issues, the participation

of regional actors in policy events, and the dynamics of cooperative efforts in influencing regional decision-making processes.

III. DEMOCRATIC GOVERNANCE IN THE RUSSIAN REGIONS

A. INTERNATIONAL ACTIVITY OF THE RUSSIAN REGIONS

The contemporary world economy and politics are characterized by complex multi-level processes. On the one hand, the forces of globalization facilitate the rapid growth of international linkages, foster economic interdependence, and enhance the flows of capital, labor, and trade across the boundaries of nation-states. The power of national governments is constantly challenged by the new powerful actors such as transnational corporations, nongovernmental organizations, terrorist networks, and regional and global institutions. Rosenau even speaks about the bifurcation of global political system where a complex emerging autonomous multi-centric world competes with the long-standing state-centric world of sovereign states (Rosenau, 1992). The current financial crisis shows that the world has become interconnected to a great extent and events in one country/group of countries have a potential to affect the whole world and national governments are no longer able to respond to some of the challenges on their own.

On the other hand, different scholars speak about the process of regionalization-increased regional cooperation and the formation of economically, socially, and politically integrated regional units consisting of either several countries (*e.g.* European Union, or ASEAN in East Asia) or countries and regions of countries (*e.g.* regional cooperation in the Northern Dimension, or regions of countries (*e.g.* Euroregions in the Northern Dimension or economic zone covering Russian Amur region and the bordering region of China).

According to Makarychev (2000), previously, international relations was the exclusive domain of the central government, while nowadays various sub-national units establish links with their foreign counterparts, which significantly impacts the formation of foreign policy and has important regional and international outcomes. According to the scholar, the patterns of regionalization often transcend the borders of states and regionalization is often conceptualized in terms of 'complexes,' 'networks,' 'flows,' or 'mosaics.' "Migration, markets, and social networks may lead to increased interaction and interconnectedness, tying together parts of existing states and creating new cross-border regions. The core of such 'transnational regionalism' might be economic (as in the development of industrial corridors, or networks linking major industrial centers), or it can be built around a high level of human interpenetration" (Makarychev, 2000).

Western scholars tend to view Russia as a monolithic entity where foreign policy and participation in international relations is the sole prerogative of Moscow. However, after the collapse of the Soviet Union, Russian regions have been very active in establishing international contacts and have played a significant role in shaping Russia's policies concerning its regional environment. Due to the economic factor (the EU is Russia's primary trading partner and the EU countries account for more than 75% of foreign direct investment into Russia's economy), Russia's regions have been mainly focused on establishing links with their European counterparts, however, regions in the Far East, like Primorski and Amur region, have pursued regional economic integration policies towards Korea, China and Japan. Therefore, geographic factor is important in explaining international proactiveness of the Russian regions and the formation of regionalism along the Russian borders.

Present-day Russia consists of 89 subjects (roughly equivalent to provinces), which are called oblasts, republics, autonomous districts, and “krays” (areas). The Constitution of the Russian Federation (article 5.1) stipulates that republics, areas, oblasts, autonomous districts, and capital cities, Moscow and St. Petersburg, enjoy equal rights. However, according to the regional expert Akimov (2004), it is not exactly true. The present composition of the Russian Federation is to a great extent inherited from the Soviet period, when various republics and autonomous districts based on the ethnicities that had previously been part of Imperial Russia, were created along with the ‘oblasts’ and ‘areas’ with the majority of the Russian population. At present, republics that are built on the ethnic basis (even though in most cases, the ethnic group after which the subject was named nowadays does not make the majority of the subject’s population) are given the right to use certain attributes of a sovereign nation-state: the heads of the republics are called ‘presidents’ (not ‘governors’), they have their own constitutions, both Russian and native languages of the title nations are considered official, etc. (Akimov, 2004).

As far as the regions’ ability to engage in international activity is concerned, the Constitution stipulates that foreign policy and international relations, international treaties and foreign economic relations, and war and peace issues are the responsibility of the central government (article 71). Coordination of international economic and social activity of the subjects of the Russian Federation, and the implementation of international treaties, is considered to be the sphere of joint jurisdiction of the federal center and the subjects of the Russian Federation that are considered to be equal in their rights to pursue contact with foreign actors (article 72.1). According to the Federation Treaty, the subjects of the Russian Federation are autonomous participants in international contacts and regional actors may engage in any cooperation initiatives with foreign actors, but any treaties between the subjects of the Russian

Federation and foreign actors are concluded in consultation with the Ministry of Foreign Affairs (Makarychev, 2000; Pustovarov, 1994). The federal Law 'On Coordination of International and Foreign Economic Relations of the Russian Federation', which came into force in January 1999, confirmed the ability of the Russian regions to establish international relations, for instance, open regional representative constituents abroad, sign agreements or engage in cooperative initiatives with international partners (Rizhkin, 2001). According to Makarychev (2000), politically speaking, there are two interrelated forms of international participation by the sub-national territorial units. First, they try to influence the decision-making process of the central government from within. Second, they may establish their own networks of transnational contacts and regional actors may engage in cooperation projects and partnerships with foreign actors.

It is important to note that provinces that are part of the so called, 'border regions' (regions that border foreign countries) have been granted more autonomy to pursue independent policies concerning their engagement in international trade, attraction of foreign investment, and conclusion of agreements with the bordering foreign actors. Provinces in the 'border regions' have special bilateral agreements with the federal government concerning their ability to engage in intense international and inter-regional cooperation with foreign actors. Russian northwestern and southern regions have the status of border regions; therefore, northwestern and southern provinces have such agreements in force. Additionally, some of the republics that are not situated along the border of the Russian Federation (*e.g.* Tatarstan) have also acquired such bilateral agreements with the federal center.

Therefore, it is possible to conclude that the international activity of the Russian regions is regulated by the Constitution of the Russian Federation, the Federation Treaty, and individual bilateral agreements between the federal government and the subjects of the Russian Federation.

According to Gella (2007), after the collapse of the Soviet Union, with the guidance of the Ministry of Foreign Affairs, Russian regions actively worked at new agreements with international actors and by 2000, the area covered by various interregional agreements had increased greatly with the majority of the agreements concluded with European governments, ministries and departments. The scholar asserts that regional cooperation between the Russian regions and their foreign partners has a complex structure as it is carried out on two levels: bilateral (with individual foreign countries or their regions), and multilateral (with groups of countries or regions, e.g. Arctic Region's Council, Nordic Council of Ministers, etc.), while the most common forms of cooperation are interregional relations encompassing economic, cultural and social contacts. Prozorov (2004) claims that from the perspective of public administration, regional cooperation unfolds at two levels: local or municipal government (micro-regionalism) and the regional (or Federal District) levels.

Despite Putin's notorious 'vertical of power' reforms that replaced the direct election of the regional executive-branch heads (including the presidents of the so-called ethnic republics) with a system under which regional legislatures confirm candidates nominated by the president by a simple majority voting, Russian regions retain considerable degree of autonomy and regional policies vary greatly, influenced more by local and external factors than by the federal government (Makarychev, 2000). Prozorov argues that the term 'vertical of power', applied to Putin's administrative reforms, "is unfortunate since it connotes the hierarchical subordination of the lower levels of government to upper ones, which in contemporary Russia is made impossible

by the federative constitutional structure and the direct elections of local and regional authorities” (Prozorov, 2004, p.4). According to Prozorov and other scholars, Putin’s reforms did not alter the center-region power-sharing arrangement, laid out in the Constitution, nor did they increase the federal authorities’ influence and control over regional internal decision-making processes. The scholars claim that the reforms were rather targeted at reviving federal instruments of dealing with the violations of the Constitution and federal laws, frequently practiced by regional authorities, as in the 1990s federal governmental constituents in the regions gradually became subordinate to regional governments.

Additionally, scholars argue that as far as the international activity of the Russian regions is concerned, it not only successfully continued under Putin, but the degree and scope of cooperation between the regions of Russia and international actors, especially the EU actors, have significantly increased over the past decade (Gella, 2007; Prozorov, 2004). Rather than hinder international regional cooperation, Putin’s presidency, actually opened new possibilities for regionalism that are relevant to the development of EU-Russian relations (Prozorov, 2004). Such possibilities include the development of local self-government through intense cross-border cooperation with the EU in the northwestern region, the establishment of the Euroregions, the participation of the southern provinces in the EU Black Sea Synergy regional cooperation initiative, and other regional opportunities outlined in the ‘1999 Russian Strategy on EU up to 2010’.

Scholars of EU external governance, EU neighborhood policy and regionalism tend to assume that the EU is the initiator of the regional cooperation and the Russian side is simply the recipient and has to adapt to the EU policies; however, they should take into account the fact that the Russian side (both regions and the federal center) has been very active in designing and

developing regional cooperation with the EU and Russian public, social, and economic actors have been co-financing regional cooperation projects, partnerships, programs, and events equally with the European actors, and Russian plans and approaches to regional development seem to overlap with the EU's regional cooperation policies to a great extent.

The EU and Russian regional cooperation policies create new opportunities for the Russian and the European public, social and economic actors functioning in the areas involved in the regional cooperation; however, it is up to the regional actors how they use these opportunities, and the development of the regional cooperation depends to a great extent on the regional actors' proactiveness towards each other and on the local factors that either facilitate or inhibit regional cooperation. There have been no studies conducting comparative analysis of the regional cooperation with the EU in the Russian northwestern and southern regions and exploring its effects on the social, political, and economic infrastructure in the regions, as well as assessing the local factors that impede or foster regional cooperation.

Although in the Russian foreign policy, the EU neighborhood policy, and various regional statements, the EU-Russia regional cooperation in the North-West and the South is claimed to be 'strategically important' for both parties, according to the number and the breadth of regional initiatives (the variety of actors participating in a project/program) in the Northern Dimension and the Black Sea Synergy, cooperation between the Russian northwestern region and Europe (EU institutions, member-states, regions of EU member-states and European actors) seems to be far more intense than cooperation between the southern region and Europe. Scholars note that out of all the subjects of the Russian Federation, the northwestern provinces have been most active in shaping Russia's foreign policy in respect to the bordering European countries and at the same time pursued their own strategy of establishing international contacts with the

European regions and countries thus becoming deeply involved in various regional cooperation networks (Prozorov, 2004; Obydenkova, 2006; Lankina, 2004). Table 1 displays regional cooperation initiatives in the northwestern and the southern regions in 2006 divided into the areas of cooperation.

Table 1: Number of initiatives in the areas of cooperation

Area of cooperation	ND Initiatives (2006)	Black Sea Initiatives (2006)
<i>Public administration</i>	73	17
<i>Social sphere, health and environment</i>	237	56
<i>Education, research, and science</i>	79	23
<i>Economic sphere</i>	552	98
<i>Mass media</i>	75	11
<i>Cultural sphere</i>	68	19
Total	1084	224

The main declared goals of both the EU Northern Dimension and the Black Sea Synergy initiatives are fostering democratization, improving governance, and developing interorganizational networking in the North-West and the Black Sea region. Both Russian and Western scholars claim that Russian regions vary significantly in governance and have different levels of democracy (Golosov, 2004; Lankina, 2004; Hale, 2005; Hahn, 1994; Henderson, 1995, Meddras, 1999). According to various studies mentioned above, the northwestern region has a much higher level of democratic governance than the southern region.

Scholars claim that geographic location and international contacts have had significant impact on the regional policy-making processes in the border regions (Pustovarov, 1994; Makarychev, 1997). Therefore, advanced level of regional cooperation in the Northern

Dimension might be an important factor explaining the difference in the levels of democratic governance between the Russian northwestern and southern regions. In addition, besides the sheer number of cooperation initiatives in the regions, there might be important differences in the way the regional cooperation is structured (*e.g.* the level of decentralization of cooperation networks or the type of actors that occupy the most central positions in cooperation processes, etc.). There are no studies that would explore the differences between the northwestern and southern regional cooperation infrastructures and processes and assess their effects on the regional development and democratic governance in the northwestern and the southern regions.

As mentioned above, both the northwestern and the southern regions are heavily involved in the transit of oil and gas to Europe. Both regions have also been used as key points for oil and gas exports by the sea (Baltic Sea in the northwest and Black Sea in the south). In addition, new transit pipeline projects are being developed in the regions: South Stream in the south and Nord Stream in the north. Nord Stream is a gas pipeline that will link Russia and the European Union via the Baltic Sea. From 2011, it will transport natural gas from Siberia to Greifswald in Germany, from where it will branch out west and supply both businesses and private households in Europe.²² The target markets for gas supply via Nord Stream are Germany, the UK, the Netherlands, France, Denmark and other countries. There are no transit countries on the Nord Stream's route. The Russian onshore section of the Nord Stream is under construction in the town of Babayevo (Vologda Oblast) and the section will run from Gryazovets to the coastal compressor station at Vyborg in the St Petersburg province. The Russian section of the pipeline will also supply gas to the northwestern region of Russia and branch pipeline in Karelia will connect the onshore section of the pipeline to Finland.

²² For more information on the Nord Stream project, see <http://www.nord-stream.com/en/>

In the southern region, in addition to the existing transit Caspian oil routes (*e.g.* Baku - Novorossiisk; Tengiz-Novorossiisk that also transfers Kazakh oil) and also Russian oil transit (*e.g.* Suhodolno-Rodionovsk), there have been constructed a Blue Stream pipeline that brings Russian gas via the Black Sea to Turkey and then, to the EU.²³ In addition, a new South Stream project is designed, which will bring gas via the Black Sea directly to the EU member states - Bulgaria, Greece, Austria, Hungary, Slovenia and Italy avoiding intermediate transit countries.²⁴

Due to the EU's increasing dependency on the Russian oil and gas supplies, the new direct pipelines are now the major point of dispute in the EU Community, as the EU's attempts to pursue energy diversification strategies. However, both Russian northwestern and southern regions are regarded as crucial points in respect to the existing and potential energy supply channels.

The politics of transit pipelines in the Russian south and north-west is more a domain of the central government and energy companies involved in the delivery of resources to Europe. Due to the absence of resources, the northwestern region simply transfers resources from Siberian and Timano-Pechersky (Nenets autonomous district) oil and gas fields. The northwestern region mainly benefits from the transit pipeline projects in terms of investment and additional sources of regional revenues that come from the transit sections; however, due to the absence of resources of its own, the region is not a player in the domestic, regional, and international energy market. The southern region is on the contrary, rich in resources. Besides being involved in energy transits, it is also heavily involved in oil and gas exploration and production activities and a multitude of energy companies operate in the region.

²³ For more information on the Blue Stream project, see <http://www.saipem.eni.it/module.asp?sect=BlueStream&pag=project-description>

²⁴ For more information on the South Stream project, see <http://www.gazprom.com/eng/articles/article27150.shtml>

The literature on the regional cooperation lacks the elaborate discussion of the implications of the energy-related processes occurring in the Northern Dimension and the Black Sea Synergy for democratization and governance in the Russian northwestern and southern regions. Additionally, there have been very few attempts in the literature to conduct a comparative assessment of the impact of the EU-Russia cooperation and regional energy issues on the development of economic, social, and political infrastructure and decision-making processes in the Russian northwestern and southern regions.

B. THE PROBLEM OF ‘RESOURCE CURSE’

As mentioned above, energy relations constitute a very important component of EU-Russia relations and scholars claim that the dynamic in the field of energy is different from the dynamic in the other areas of cooperation, since energy is a very sensitive political issue both for Russia and the EU (Monaghan and Montanaro-Jankovski, 2006).

As far as the energy field is concerned, both political economy and public administration literature widely discuss the problem of ‘resource curse’ and the negative relationship between energy and democratic governance (Ascher, 2000). Various scholars assert that countries that have abundant natural resources usually produce undemocratic policies and suffer from corruption and poor governance. Additionally, it is argued that resource-based economies have much slower long-term economic growth due to the fact that countries that heavily rely on natural resources tend to have very weak institutions and generate poor economic policies (Aditya, Rabanal, and Byskov, 1998; Oystein, 2002).

In the literature on the resource-based economies the most extensively discussed argument linking natural resource dependence to poor governance is that resource wealth tends

to create incentives for rent-seeking (Gurvich, 2005; Rossii, 2005; Thompson, 2005). According to Thompson (2005), “both state and private actors in resource-rich economies may focus on capturing the resource rents rather than on wealth creation and may favor the development of institutions geared to rent-seeking rather than entrepreneurship”. The scholar also notes that “politically, the state’s ability to run on resource rents may well serve to make it less accountable than it would otherwise be to those it governs”. Ascher (2000) argues that natural resource rents are often the cause of poor governance policies, because public officials manipulate them to achieve unpopular or even illegal objectives. Since the collapse of the Soviet Union, instead of focusing on economic development, Russian political and policy-making activity has been in many aspects centered around the conflict over resource rents. Moreover, the competition to capture natural resource rents by obtaining control over the energy enterprises and the export of primary commodities, especially oil and gas, started well before the dissolution of the Soviet Union and the privatization campaign.

Another argument connecting natural resources to poor governance is that the opportunity to collect significant revenues from the natural resource sector reduces state’s incentive to improve its fiscal institutions (Esanov, Raiser, and Buiters, 2001). Additionally, resource wealth usually generates complacency in policy-makers and private-sector actors, which can significantly affect their motivation and interest in undertaking structural and other measures needed to stimulate economic diversification (Thompson, 2005). Resource-based economies are highly dependent on volatile commodity prices, and this is argued to be a big threat to economic stability and steady long-term growth.

As far as the problem of natural resources is concerned, the unit of analysis in political economy and public administration literature has always been a state. There have been no

attempts in the literature to test the ‘resource curse’ theory at the sub-national level. I believe in the Russian context (given the size of the country and considerable variation in the regions’ energy exploration, production and exporting capabilities) it would be important to see how the presence of resources and the existence of energy companies in the provinces affect democratic governance at the regional level.

There is substantial variation in dependence on the natural resources in the Russian regions: in some regions natural resources account for over 40 % of the region’s GDP, while in some regions they account for less than 5%. As far as the link between the energy companies operating in the region and their ability to influence policy making is concerned, Hellman and Kaufman (2000) assert that in trying to understand the policy process at any level of authority in Russia one inevitably faces the phenomenon of the ‘state-capture’, meaning conditions under which large enterprises are able to exert influence over the policy-making processes and enactment of laws through illicit and non-transparent provision of private benefits to public officials and politicians. Since Russian economy heavily relies on energy revenues, and many large enterprises are in the oil and gas sector, energy companies have substantial influence over the policy processes in the Russian regions. Therefore, the same phenomenon might be observed at the sub-national level as the network of the energy companies and provincial governments might have a significant impact on decision-making processes in the regions.

As far as the northwestern and southern regions are concerned, both regions are strategically important for Russia in terms of energy transit lines to the EU (Perret, 2006). However, as mentioned above, in terms of energy resources, the southern region has vast oil and gas deposits and, as a consequence, is engaged in energy exploration, production, and export activities, while the northwestern region lacks resources of its own and simply serves as a transit

territory for oil and gas exports. Additionally, there are significantly more energy companies operating in the southern region not only because of its vast reserves, but also due to the fact that the region has been drawn into the global geopolitics as a transit territory for the Caspian and the Central Asian oil, while the northwestern region transfers only Russian oil and gas (Sharafutdinova, 2003).

C. ETHNO-CULTURAL AND HISTORICAL PECULIARITIES OF THE NORTHWESTERN AND SOUTHERN REGIONS

In addition to the differences in the energy resources, there are also important ethno-cultural and historical differences among the Russian regions that might be important in explaining variation in their levels of democratic governance and intensity of cooperation with the EU.

The Russian Federation is home to more than 130 national minorities. Besides the Eastern Slavic people (Russians, Ukrainians, and Belarusians), who account for about 85 percent of Russia's population, three big ethnic groups (Altaic, Uralic, and Caucasus) and a handful of isolated smaller groups reside within the country.

As far as the ethnic composition of the northwestern and southern regions is concerned, the southern region is one of the most multiethnic and multireligious regions in Russia and in the world represented by more than 80 different ethnicities. A multitude of ethnic subgroups belonging to the Caucasus ethnic group reside in the region: Adyghs, Kabardins, Dargins, Lezgins, Avars, Cherkess, Ingush, Aguls, Chechens, and other. The region is also home to Altaic subgroups- Mongolian Kalmyks and Kazakhs, Karachays, Balkars, Kumyks, and Noghay, and Indo-European Osetians and Armenians. It is important to mention that all of the above are

distinct peoples, however small they may be, with their own culture, languages, customs, traditions, costumes, arts, and architectures (Colarusso, 1997). Many are further subdivided by tribes, clans, and blood lines. According to Colarusso (1997) and other scholars, in linguistic, ethnographic, social, and political terms the southern region is like a ‘miniature continent’.

Figure 5 displays complex ethno-cultural composition of the southern region.

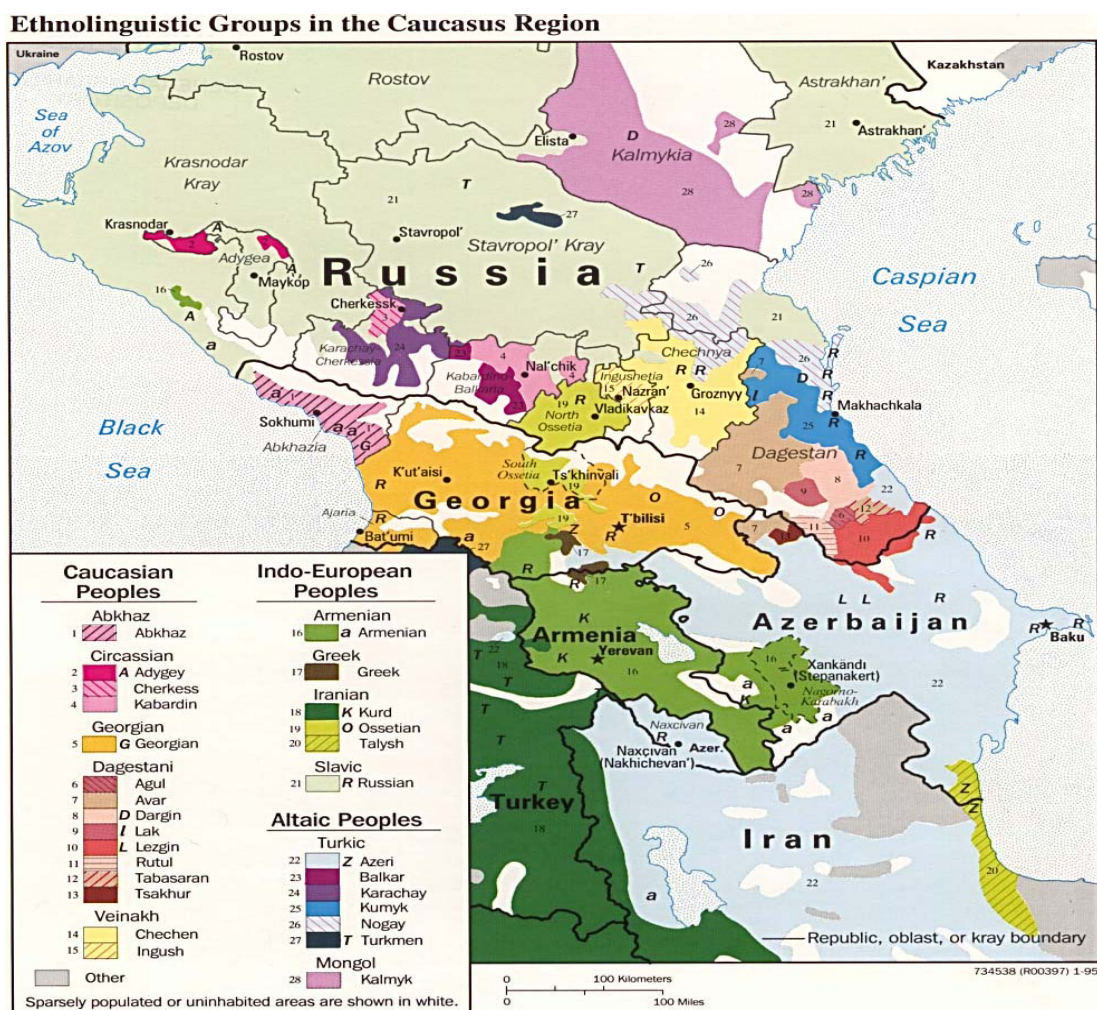


Figure 5: Ethno-linguistic groups in the southern region

Historically, the southern region has not had many interconnections with Europe for several reasons. First, Caucasus (except for Osetians and Armenians that are Indo-Europeans) and Turkic steppe peoples' ethnic origin and languages are different from those of the peoples of Europe belonging to the Indo-European ethnic and linguistic unity. Only Cossacks who have historically occupied some parts of the southern steppes along the Don River share common European heritage. Some historians consider Cossacks to be run-away peasants of different ethnic origins (Slavic, German, etc.) that settled along the Don River in the Russian south. Other historians claim that Cossacks are descendants of Kurgan people. According to the Kurgan hypothesis, in ancient times, migration of people to Europe and other regions originated from the Southern steppes of what is now Russia and Ukraine. There are multiple remains of proto-Indo-European settlements on the territory of Don Cossacks' settlements and according to archeological evidence, Cossack settlements are in the very center of the territory that was once populated by the Kurgan people. Therefore, historians adhering to the Kurgan hypothesis suggest that Don Cossacks did not migrate to the southern region of Russia from other parts of Europe, but rather descend from the Kurgan people that lived in this area before migrating to Europe, Iran, and India. However, these theories are not mutually exclusive as Don Cossacks might originate from Kurgan people and at the same time host run-away people of different ethnic origins who chose to move to their territory.

The second reason why the southern region did not have many contacts with the EU countries is that geographically, southern provinces are not close neighbors of the majority of European states. The expansion of the European Union and the accession of Greece, and then Romania and Bulgaria brought the EU to the borders of the southern region, which is very recent history.

The third reason is the very turbulent history of the southern region as it has experienced many different influences, primarily non-European. According to historians, its Caucasus part was already populated by a multitude of different ethnic groups in the Neolithic period. In classical times, the Caucasus part was fought over by Rome and Persia. Persia prevailed and after the Caucasus region was conquered by the Arabs, Islam was introduced. In the early medieval times the region was occupied by Khazar Khanate, an autocratic entity with a distinct clan structure founded in the 7th century by semi-nomadic Turkic people in the Northern Caucasus along the Caspian Sea. Then the region became occupied by the Tatar-Mongol Golden Horde Khanate. In the middle ages, the Caucasus region was a battleground between Persia and the Ottoman Empire. With the demise of the Ottoman Empire and the expansion of the Russian Empire, it was annexed by the Russian state.

As far as the steppe part of the southern region is concerned (Rostov, Krasnodar, Stavropol provinces and Kalmykia), according to historians, in the Neolithic period it was populated by Indo-European proto-Slavic tribes. As mentioned above, according to one of the theories, Don Cossacks are the descendants of those peoples. Then in the classical times, it was largely influenced by Greece as the settlements belonging to the northern part of Greek civilization are found in the region (for instance, Tanais in Rostov province is an ancient Greek city and a historical museum nowadays). In the early medieval times, steppe region was influenced by the nomadic Central Asian tribes and in the middle ages the area was under the full control of the Tatar-Mongol Golden Horde Khanate. After the defeat of the Golden Horde by Moscow prince Dmitry Donskoy, the Golden Horde Khanate split into several clans and soon Crimean Khanate was founded in the region. With the defeat of the Crimean Khanate, the area was gradually annexed by Russia.

Therefore, the southern region, in addition to its internal multiethnic and multicultural composition and clan-based structure of society, suffered from numerous external non-European influences and was affected by several very centralized and autocratic systems like the Golden Horde Khanate or the Ottoman Empire. This may have had a significant negative impact on the development of democratic governance and regional governance structures in the southern region.

In contrast with the southern region, the northwestern region is one of the most ethnically homogeneous regions of Russia, composed mainly of Slavic population and a small Finnic minority belonging to the Uralic ethnic group and sharing common historical and ethnic identity with people in the bordering Finland. Figure 6 represents ethnic composition of Russian republics with red color marking native Russians, green –titular republic nationality, blue- minor nationality, and grey-other. People of Finnic origin mainly reside in the republic of Karelia; however, they also live in other parts of the northwestern region.

Russia's Ethnic Republics

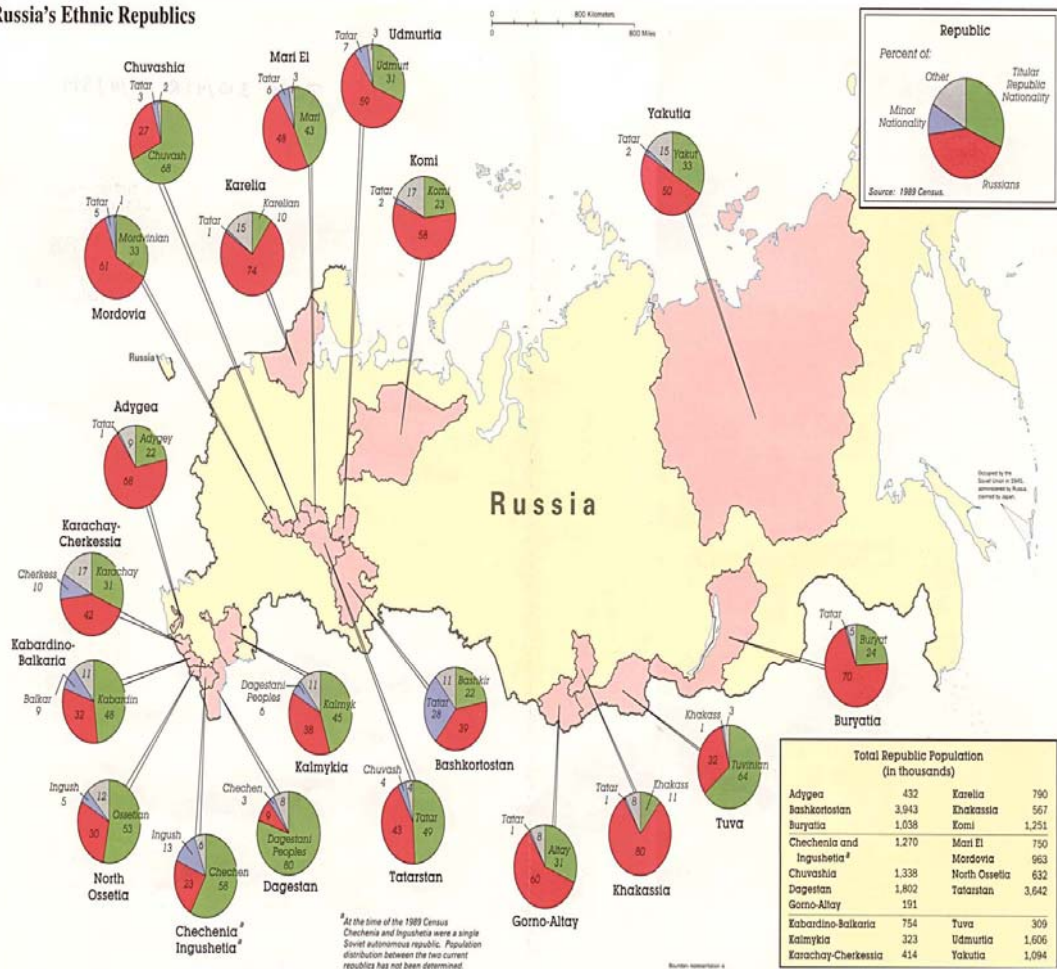


Figure 6: Ethnic composition of the subjects of the Russian Federation

The northwestern region is considered to be one of the three main historical centers of the Eastern Slavic civilization (the other two are Kievan Rus and Moscow region). It has always had much more ethno-culturally homogeneous composition than the southern region. In ancient times, the European part of Russia was inhabited by Nordic Europeans, proto-Slavic tribes, coming from the common Indo-European ancestry. Indo-European family of languages is the biggest in the world and includes Italic, Celtic, Germanic, Balto-Slavic, Anatolian, Indo-Iranian, and other

language groups. Figures 7 and 8 display the early and the late distribution of the Indo-European languages with the red area marking the geographic origin of Indo-Europeans.



Figure 7: Early distribution of Indo-European languages



Figure 8: Medieval distribution of Indo-European languages

In the Neolithic period, Finno-Ugric Uralic tribes arrived to the European part of Russia and northern Europe from the East. Finno-Ugric languages (*e.g.* Finnish, Hungarian, and Estonian) belong to the Uralic family of languages different from the Indo-European one. Finno-

Ugric tribes peacefully coexisted with the European Balto-Slavic and Germanic tribes that differentiated from the European part of the proto-Indo-European family. In the northwestern Russia, Balto-Slavic tribes successfully integrated with Finno-Ugric ones in the course of inter-tribal marriages and cultural exchanges. Finno-Ugric peoples and Germanic Scandinavians participated in the early formation of the Russian state and were quickly absorbed into the expanding Russian population and became completely Slavicised after a century. In the course of historical and social transformations tribal divisions were replaced by territorially administrative structures.

The experts interviewed for the qualitative part of this dissertation argue that there was an important set of social and economic factors that led to the destruction of tribal relations and formation of class-based society in Novgorod- the-Great, early Russian polity that in the 8th century occupied the lands of the modern northwestern region of Russia.²⁵

First, growth of production based on a number of economic innovations. Rye became the main grain culture for Balto-Slavs and Scandinavians in the 6th centuries and advanced extraction of iron from the marsh ores led to the broad spread of iron agricultural instruments, which allowed for the effective use of force of draft animals in agriculture. This led to a steady increase in agricultural efficiency and conditioned a more settled way of life.

Second, manufacture and craftsmanship became concentrated in permanent trading and craft centers- ‘grads’, or cities. Third, significant increase in the volume of trade and transportation capacity led to the development of European trading routes and routes connecting Europe with Asia.

Fourth, it became necessary to protect Slavic cities from various attacks, which led to the formation of ‘druzhinas’, or military units and fostered territorial unification of cities into bigger

²⁵ Chapter V of this dissertation is based on the interviews with the regional experts.

administrative entities. Therefore, by the 8th century, Slavic communities lost tribal relations and big cities emerged that also included people of other ethnic origins, mainly Germanic and Finnic. In Novgorod-the-Great, which by the 8th century became a major political and economic centre of a vast land from the Baltic region and Finland in the West to the Northern Urals in the East, about 30% of population was of Finnic origin (of merya and chud tribes). Novgorod-the-Great included all the northwestern lands of the modern Russia and in medieval times extended all the way to the White Sea in the north and beyond the Urals in the east. Therefore, the modern Russian northwestern provinces take their administrative origin in the Novgorod-the-Great polity.

Novgorod-the-Great enjoyed a primitive form of democracy, being run by the assembly of 'Boyars', with the 'Knyaz' (prince) acting more as a hired military leader. It also had a developed culture and advanced literacy, as proven by the 900 birch bark documents that include letters from women and children, as well as informal notes on family and trading matters and events in the city (Baillie, 2002). At the end of the 9th century, Novgorod-the-Great extended its authority to Kiev (the capital of modern Ukraine), which at that time was a Slavic settlement, but controlled by Khazar Khaganate. Kiev was taken from the Khazar rule by Novgorod-the-Great and the so-called Kievan Rus was founded by knyaz Oleg of Novgorod in about 880. In a few years Oleg of Novgorod moved the capital of the state from Novgorod city to Kiev city.

Figure 9 displays principalities of Kievan Rus state.



Figure 9: Principalities of Kievan Rus

Novgorod-the-Great lands, called Novgorod Republic, became an autonomous part of this big Slavic state that included vast territories in the eastern and northwestern Europe. Republic of Novgorod was very prosperous in the Kievan Rus as it controlled important trade routes from the Volga River to the Baltic Sea (Curtis, 1996). Novgorod-the-Great and later on Novgorod Republic was one of the most powerful centers of international trade serving as a link between Northern Europe, southern Byzantium and Asia. In the 12th century Kievan Rus split into 15 independent duchies and Novgorod part became again an independent state officially called Novgorod Republic.

Novgorod Republic has traditionally had a more participatory government than much of the rest of Russian principalities. The Republic had a highly institutionalized network of *veches* (representative legislature or public assembly, a tradition coming from Slavic tribal way of life) and a government of several ‘*posadniks*’ (mayors), ‘*tysyatskys*’ (originally the heads of militia,

but later judicial and commercial officials), other members of aristocratic families, and the archbishop of Novgorod (Kucevskii, 1994).

According to historical and archeological evidence, merchants, members of the urban population (*e.g.* craftsmen), as well as rural people, participated in the *veche* (the public assembly) and were involved in the political affairs of the republic. The *knyaz*' power was quite reduced as he had to sign a contract stipulating his rights and responsibilities that protected Novgorod boyars. In addition, the *veche* could invite or dismiss the *knyaz* depending on his conduct, decisions, and contribution to the prosperity and safety of the Republic. Novgorod polity is often called a cradle of Russian and European democracy. Republic of Novgorod was a flourishing center of trade and culture and had active civic infrastructure.

From the early formation of the Russian state, Novgorod-the-Great polity, Scandinavians, Balts and Finns were important neighbors and trading partners for Russia. Novgorod-the-Great is mentioned in Scandinavian Norse Sagas as four Viking kings sought refuge in Novgorod from enemies at home.

In early medieval times Novgorod Republic was the largest state in the medieval Europe as it controlled territories from today's Estonia all the way to the Ural Mountains. Later on vast parts of present-day Norway, Russia, Sweden and Finland were joint 'tribute paying land' (Norwegian: *skattland*) divided between Norway, Sweden and Novgorod principality. This included the Kola Peninsula and the present Norwegian coast to Malangen west of Tromsø.

Novgorod relations with its northwestern neighbors were sort of a 'love and hate' relationship as the Republic struggled for centuries against Swedish, Danish, and German crusaders. However, despite frequent wars (which were common for medieval Europe) Novgorod had advanced diplomatic relations with its European neighbors. From the 12th century,

there have been various foreign embassies and trading and commercial centers in Novgorod (*e.g.* Dutch and German). Medieval Novgorod had close contacts and partnerships with the Hanseatic League of North-European cities, a developed international trade organization and a common market. The League had its permanent representatives and a trading branch in Novgorod. Therefore, the northwestern region, Novgorod Republic back then, in the medieval times and early modern period was very well integrated into the European political and economic structures. As Europe entered a period of royal state-building, Russian monarchy became intertwined with European monarchies- Prussian, Austria-Hungarian, Finnish, Swedish, and other.

During the medieval times, Tver, Moscow and Lithuania duchies (that had more autocratic forms of governance) fought over control of the Novgorod Republic and its enormous wealth. Resisting Moscow oppression, Novgorod sought an alliance with Lithuania and Poland, which was perceived as a major betrayal by Moscow and Moscow Principality went to war against the Republic. In the 15th century, Novgorod Republic lost its independence and was incorporated into the Moscow principality, which later expanded into the Russian Empire. However, even in the tsarist Russia, Novgorod gubernia (province) had more autonomy than some other regions. With the foundation of St Petersburg with its powerful port, the Academy of Sciences, and numerous theaters, ballet and opera halls, the northwestern region strengthened its cultural and economic significance in Imperial Russia.

Regional experts interviewed for this dissertation assert that St Petersburg, though a very young city (1703), quickly absorbed the northwestern spirit and historical path-dependency and became a vibrant cultural and political center of the region with Novgorod city remaining the guardian of the northwestern antiquities (it is now UNESCO heritage site) and glorious past.

Historically, the northwestern region has always been trying to pursue a foreign policy of its own and was often in sort of opposition to the central region governed by Moscow. Some experts even juxtapose northwestern region as the cradle of Russian and European democracy to Moscow's imperial heritage of political and economic centralization.

In addition to being included in European political and economic space, the northwestern region has always been part of Europe geographically, as its territory has significantly overlapped with that of the neighboring Nordic states. For instance, from 1809 until the end of 1917, Finland was part of the northwestern lands of the Russian Empire as an autonomous Grand Duchy of Finland. Russian northwestern republic of Karelia was part of the Russian Novgorod Republic; then in the late 13th century, various parts of Karelia were conquered by Sweden and incorporated into Swedish Karelia until they were returned by Russia in 1721. In 1941, Finland occupied large parts of Karelia, but was forced to withdraw in 1944 and Karelia became Russian again. Various regional experts claim that Karelia is among the top-priority topics in modern Finnish and Swedish politics.

As another example, Kaliningrad, the administrative center of Kaliningrad province, the Russian exclave between Poland and Lithuania on the Baltic Sea, was originally Königsberg, the Prussian and German town. The Kaliningrad province that administratively belongs to the northwestern region (though it is separate from it) became an exclave due to the collapse of the Soviet Union. At present, the province has a developed network of partnerships with the EU actors and the EU Commission has a special economic program for Kaliningrad. Kaliningrad province enjoys increasing trade, economic growth, rising industrial output, growth of civic activity and according to different estimates, is growing faster than even its EU neighbors.

Even given existing differences between the northwestern region and the central, or Moscow region, Novgorod Republic and Moscow principality were both Slavic states and shared common ethno-cultural background, language, history, and culture. At the same time, the southern region has always been populated by a multitude of different peoples with their own historical backgrounds, languages, customs, and traditions, very different from the Slavic ones. The southern region became part of Russia in the course of the expansion of the Russian Empire, but was never part of its historical identity, especially the Caucasus part. Additionally, as mentioned above, the southern region suffered from several non-European autocratic influences.

It is important to see whether these ethno-cultural and historical differences between the southern and the northwestern regions can be important factors impacting the current level of democratic governance in the regions and the intensity of their integration in the European space. Both regions are included in the regional dimension of the EU's foreign policy, however, the actual political, economic and cultural processes between the regions and the EU might be very different due to the existing ethno-cultural and historical differences discussed above. The regional ethno-cultural and historical aspects will be extensively discussed in the fifth chapter of this dissertation, which is based on the interviews with the regional experts.

D. LONGITUDINAL ANALYSIS OF DEMOCRATIC GOVERNANCE IN THE RUSSIAN REGIONS

Before focusing specifically on the northwestern and southern regions, I conduct longitudinal analysis of democratic governance in all the Russian provinces and test a variety of factors possibly affecting the level of democratic governance in the provinces to acquire rigorous

statistical results that will help to outline major tendencies in the development of democratic governance in Russia.

In certain instances, this longitudinal analysis is a replication of the analysis conducted by Lankina and Getachew (2006), as it uses the same dependent variable- the level of democratic governance in the Russian regions and it is also focused on the assessment of the relationship between democracy and EU influence. However, I employ a different model of analysis and a different set of independent variables. Additionally, I treat ‘EU influence’ as a more complex variable than targeted aid programs.

1. Research Questions and Hypotheses

Research question:

What factors affect the level of democratic governance in the Russian provinces (by provinces meaning all the existing subjects of the Russian Federation – oblasts, krays, republics, and autonomous districts)?

Research hypothesis:

The level of democratic governance in the Russian provinces is, among other factors, affected by the EU influence in the province and province’s prominence in the energy sector.

Control variables for the research hypothesis are: the level of province’s urbanization, composition of political elites, ethno-cultural composition, and distance from the EU.

2. External and Internal Factors Affecting the Level of Democratic Governance

Dependent variable: democratic governance

In order to explore how various factors affect democratic governance in the Russian provinces over time, panel data set was constructed for the analysis. The measure of the level of

democratic governance was based on Petrov and Titkov's indexes (in Russian, 'otsenka demokratichnosti').²⁶ The indexes were calculated by annually asking a panel of experts to estimate developments in the provinces and assign scores on a five-point scale to each of the ten areas that were considered important for assessing the level of democratic governance in the regions.

Petrov and Titkov use the following measures of democratic governance:

- 1 — Economic and political openness
- 2 — Elections: democratic/undemocratic
- 3 — Political pluralism
- 4 — Independence of mass media
- 5 — Economic liberalization (liberal economic policies)
- 6 — Civil Society
- 7 — Accountability and transparency of institutions
- 8 — Political elites
- 9 — Corruption
- 10 — Local self-government

Three waves of data for the dependent variable were available for the analysis; therefore the panel for the analysis is composed of the three-period observations for each province. The data were available from 1991 to 2004 and were aggregated into the three waves by the researchers of the Nezavisimiy Institut Sotsialnoi Politiki (Independent Institute of Social Politics): democratic governance indexes covered the years 1991 -2001 (baseline), 1999-2003, and 2000-2004.²⁷ The indexes for 1999-2003 and 2000-2004 were calculated by the 'moving averages' method.

²⁶ The scores were calculated in the framework of the Moscow Carnegie Center's project. Petrov -Titkov scores are available at the web site of the Independent Institute of Social Politics,

http://atlas.socpol.ru/indexes/index_democr.shtml

²⁷ The information about the Independent Institute of Social Politics and the project can be found at

http://atlas.socpol.ru/indexes/index_democr.shtml

These data points were labeled as 1991, 1999, and 2004, for convenience. The data were available for the 88 provinces (excluding Chechnya due to unavailability of data), so there are 264 observations in the analysis.

Independent variables

a) Cooperation with the EU

Lankina and Getachew (2006) interpreted EU influence as targeted aid. In this analysis EU influence was coded as a complex measure composed of the total number of EU assistance programs in the province and also cooperation programs, projects, partnerships and business initiatives between the EU actors and the actors residing in the province. An original data set of EU-related business deals/projects/partnerships/programs/initiatives in the 88 Russian provinces from 1991 till 2004 was constructed and the data in the dataset were aggregated into the three waves for the consistency with the democratic governance data.²⁸

b) Province's prominence in the energy sector

Province's prominence in the energy sector was coded as province's dependence on oil and gas revenues (the percentage of the province's GDP constituted by revenues from the energy sector, time-varying variable) and the number of energy companies operating in the province, a time-invariant variable.²⁹

²⁸ Basic information on Tacis can be found on "Europa," the website of the EU http://europa.eu.int/comm/external_relations/ceeca/tacis/.

For information on the new European Neighborhood Policy, see European Commission (2005).

For the document describing new funding instruments that replace Tacis, see the report of the Commission of the European Communities, currently called the European Commission (2005).

The information about regional partnerships was taken from the websites of the regional governments and Russian National Statistics Committee (GOSKOMSTAT)

The information on different projects, business initiatives, and programs was taken from the Russian and the European local and regional newspapers, websites and brochures of local and regional organizations, and local and regional websites.

²⁹ The information on the percentage of the province's GDP constituted by revenues from the energy sector was calculated using the information from the website of the Russian Ministry of Natural Resources (regional statistics section) <http://www.mnr.gov.ru/>, and also websites of provinces (economic reports).

Since Russia's oil and gas exports to Europe account for over 75 % of its energy exports and for over 70 % of its export earnings and 40% of its budget receipts, and the EU is highly dependent on Russian oil and gas, the energy variable is linked to the EU in the analysis.

c) Urbanization

As far as urbanization is concerned, various scholars found out that there is high correlation between urbanization and modernization, socioeconomic development, and good governance (Lankina and Getachew, 2006). According to Lankina and Getachew's analysis, urbanization proved to be a very strong predictor of regional democracy in Russia. Other scholars discuss positive relationship between city size, governance and social interconnectedness of local organizations (Baglioni, Denters, Morales and Vetter, 2007). They argue that "in the large communities there is not only a higher need for accommodation via interorganizational contacting, but also a capacity to meet such a need through professionalization" (p. 229). In addition, it is argued that high density and diversity are likely to enhance the conflict potential and the competitiveness of the local political arena including the need for the civil society to keep in close contact with public officials. It is important to include urbanization in the analysis to control for the level of urbanization and improve the estimates. The urbanization index is a time-invariant variable in the analysis.³⁰

d) Composition of political elite

Composition of political elite was coded as the percentage of the seats in the provincial dumas occupied by the communist party. In public administration and political economy literature communist approach to economy and public administration has been associated with policies that resulted in poor governance (Bideleux, 1985; Ivanova, 2007). Therefore, it would

³⁰ Information on urbanization can be found at the web site of the Independent Institute of Social Politics, available at http://www.socpol.ru/atlas/maps/1_1_2map.gif

be interesting to see if the assumption still holds in respect to the Russian provinces. The data on the percentage of the seats in provincial governments occupied by the communist party were taken from the websites of the provincial governments and ‘regional newsletter’ monitor, which has been published since the collapse of the Soviet Union. The data were also aggregated into the 3 waves for consistency with the democratic governance scores.

e) Ethno-cultural composition

Ethno-cultural composition, a time-invariant variable, was coded as the number of ethnic groups residing in the province that constitute more than 3% of the total population of the province.³¹ In democratization literature it is argued that ethno-cultural homogeneity is important for democratic development as ethno-culturally heterogeneous areas are more prone to conflict and social and economic instability (Axtmann, 2007).

f) Distance from the EU

Distance from the EU, another time-invariant variable, was coded as distance from Brussels. This variable was included to see if proximity to the EU can be a significant factor in explaining variation in governance: if the provinces located at a greater distance from the EU are less likely to have high levels of democratic governance than those located in greater proximity to it. For instance, decisions about allocation of aid and establishment of certain partnerships in the Russian regions are made by the European Commission, which is placed in Brussels, thus it might favor those regions in Russia, which are geographically closer to the European Union.

The distance from the provincial capitals to Brussels was calculated using google ‘distance calculator’ technique.

³¹ Information on the ethno-cultural composition of the provinces was taken from the regional encyclopedia, available at <http://www.mojgorod.ru/regs/list.html>

3. The Model and the Method of Analysis

Econometric approach to panel data is used to control for unobserved heterogeneity, or biases due to unmeasured variables that differ across units, and provide more efficient estimates of model parameters.

The general model looks the following way:

$$Y_{it} = \alpha + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \dots + \beta_j X_{jit} + U_i + \varepsilon_{it}$$

Where Y for a given region-year is function of an intercept, the regression coefficient (β_1) for variable 1* X at its value for a given region-year, the regression coefficient (β_2) for variable 2*X at its value for the given region-year, through the coefficient (β_j) for the jth variable*X, an error term for the region-year, and U_i , which represents all of the unobserved ‘stable’ factors in case or unit i. The error term in this model is composed of two parts: a unit-level effect that does not vary across time (U_i) and an idiosyncratic error term that varies across units and across time (ε_{ij}), and the composite error term.

In our case Y is democratic governance, X_1 is cooperation with the EU, X_2 is the share of natural resources in the region’s GDP, X_3 is the number of energy companies operating in the province, X_4 is the composition of political elite, X_5 is ethno-cultural composition, X_6 is urbanization index, and X_7 is the distance from the provincial capital to Brussels. There are 4 time-varying variables in the model: democratic governance, composition of political elite, cooperation with the EU, and the share of natural resources in the region’s GDP. The time-invariant variables are the number of energy companies operating in the province, ethno-cultural composition, urbanization index, and distance between provincial capitals and Brussels.

Panel-data estimators will help us avoid the shortcomings of traditional regression methods such as ordinary least squares (OLS) that ignore intra- or within-panel correlation.

4. Longitudinal Analysis

First, fixed effects model is used as possible solution to the problem of unobserved stable unit effects. The fixed effect model assumes that the unit-level error is stable and may be related to the independent variables/estimators (X). The fixed effect model allows to get rid of these stable effects statistically, so the only things that are left are the pure error term and the variation of dependent and independent variables around their unit-level means.

As mentioned above, urbanization, the number of energy companies, ethno-cultural composition, and distance between the capitals of the provinces and Brussels are time-invariant variables, thus they will drop out of the estimation of fixed effects anyways, so they are not included in the model. To account for heteroskedasticity problem, robust standard errors are included in the model. Table 2 represents the results of the analysis of the fixed effects model.

Table 2: Fixed effects model

Dependent Variable: democratic governance		Coefficients
Independent variables	Dependence on oil and gas resources	-0.12*
	Cooperation with the EU	0.32**
	Composition of elites	-0.1
R ² 0.213 sigma_u 2.1546998 sigma_e 1.0329823 rho .81311857 (fraction of variance due to u_i)		
* significant at the .05 alpha level		
** significant at the .01 alpha level		

As the results indicate, energy and cooperation with the EU turned out to be significant factors in explaining variation in the level of democratic governance in the regions. The dependence of a province on natural resources happened to be negatively related to the democratic governance (coefficient is -0.12), which means that with the increase in the share of

natural resources in the region's GDP, there will be a decrease in democratic governance in the region. This is consistent with the literature discussed above. Cooperation with the EU proved to have a strong positive impact on the level of democratic governance in the region. The composition of provincial political elites coded as the percentage of the seats in the regional dumas occupied by the communist party turned out to be an insignificant factor in explaining variation in the democratic governance in the Russian provinces.

The value of σ_u is higher than that of σ_e , this tells us that the individual specific (unit level) error is higher than the idiosyncratic error. The value of ρ tells us that 81% of variance in the composite error term comes from unit-level error U . With this model we explain 21 % of variance.

Table 3 reports the correlation between the unobserved unit effects and the independent variables/estimators.

Table 3: Correlation between XB and U

	fixedu	fixedp~d
fixedu	1.0000	
fixedpred	0.5923	1.0000

The correlation coefficient between XB and U is reported as 0.5923. This means that the unobserved unit effects are correlated with the independent variables/estimators (X) at 0.5923.

The 2-way fixed effects model (Table 4) suggests that there is a statistically significant positive effect of the year 2004 over the year 2002.

Table 4: 2-way fixed effects model

Dependent Variable: democratic governance		Coefficients
Independent variables	Dependence on oil and gas resources	-0.14*
	Cooperation with the EU	0.34*
	Year 2	0.27
	Year 3	0.39*
R ² 0.192		
sigma_u 2.0708754		
sigma_e 1.0198486		
rho .80481027 (fraction of variance due to u_i)		
* significant at the .05 alpha level		
** significant at the .01 alpha level		

This may be explained by a significant increase in business initiatives, projects and cooperation programs between Russian and EU actors between 2002 and 2004. This model also shows that natural resources and EU influence are still significant in explaining variation in governance: energy variable is negatively related to democratic governance (-0.14), and cooperation with the EU is positively related to democratic governance (0.34).

In the fixed effects model the time-invariant variables drop out; however, they might be important in assessing the effects of cooperation with the EU and energy on democratic governance. Therefore, the random effects model will allow for the estimation of the impact of the time-invariant factors. The random effects model begins with the assumption that the unit level error and the idiosyncratic error are a result of random processes/ Assumption 1. Random effect model also assumes that there is no autocorrelation in idiosyncratic error term and that the variance in both unit level error and idiosyncratic error are constant for all estimators /Assumptions 2 and 3. Most important, however, the random effects model assumes that the two errors are unrelated to independent variable estimators/Assumption 4. This last assumption is very problematic and is a complete opposite of fixed effect assumption. Besides, we can already

observe U correlated with all of X at 0.59. Table 5 reports the results of the analysis of the random effects model.

Table 5: Random effects model

Dependent Variable: democratic governance		Coefficients
Independent variables	Dependence on oil and gas resources	-0.09*
	Cooperation with the EU	0.29*
	Composition of elites	-0.06
	Ethno-cultural composition	-0.15*
	The number of energy companies	-0.11*
	Distance from Brussels	0.00079**
	Urbanization	0.37*
R ² 0.221		
sigma_u 1.5851156		
sigma_e 1.0329823		
rho .70191099 (fraction of variance due to u _i)		
* <i>significant at the .05 alpha level</i>		
** <i>significant at the .01 alpha level</i>		

The results indicate that urbanization has a positive correlation with democratic governance, which is consistent with the literature. Cooperation with the EU and the dependence of a province on natural resources still have significant effects on democratic governance. Additionally, the number of energy companies operating in the province turned out to be a statistically significant factor negatively affecting democratic governance in the Russian provinces. Composition of provincial political elites is still insignificant. Ethno-cultural composition appears to be negatively related to democratic governance implying that more ethno-culturally heterogeneous provinces will have lower levels of democratic governance. Distance between the regional capitals and Brussels happened to be a significant factor, and though the value of the coefficient is small, it still indicates the tendency that the provinces located further away from Europe will have lower levels of democratic governance.

The Random Effects model shows that overall R^2 has increased compared to the fixed effects model from 0.213 to 0.221. The unit level error has declined in this model; however it is still higher than idiosyncratic error. Theta is reported at .65. As theta value approaches 1, it means that more and more of the composite error variance is composed of unit-level variance. This is the case here. This is in agreement with the previous analysis of unit error vs. idiosyncratic error. Also, as we see from the value of rho, the composite error term contains 70% variance from unit-level error.

According to random effects model assumptions, the correlation between unit level error U and independent variables X is assumed to be 0. However, as mentioned above, this is not the case. Thus there are reasons to think that the random effects model is biased and inefficient. It seems like the fixed effects model is more preferable. However, it is necessary to conduct tests to prove this. Appendix of this chapter reports the results of the tests of the efficiency of the models.

The results of the tests indicate that the random effects model assumptions do not hold. So, the fixed effects model is preferable. However, the real disadvantage of the fixed effects model is that it can not estimate time-invariant variables. Because the fixed effects model uses only the 'within' variance and ignores the 'between' variance, the effect of time-invariant estimators are also swept out with stable unit effect. Fixed effects model also poorly deals with variables that have very little 'within' variation, or change very slowly overtime. The Plümper-Truger's method, which the authors call the 'fixed effects vector decomposition', allows keeping the benefits of the fixed effects model while also including time-invariant variables in the model. This is possible by decomposing the unit fixed effects into those that are explained by time invariant variables and those that are unexplained. Table 6 reports the results of the analysis of the Plümper-Trauger's model.

Table 6: Plümer-Trauger's model

Dependent variable: democratic governance		Coefficients
Independent variables	Dependence on oil and gas resources	-0.11*
	Cooperation with the EU	0.27*
	Composition of elites	-0.09
	Ethno-cultural composition	-0.19*
	The number of energy companies	-0.12*
	Distance from Brussels	0.00084**
	Urbanization	0.31*
R ² 0.46		
* <i>significant at the .05 alpha level</i>		
** <i>significant at the .01 alpha level</i>		

Plümer-Trauger's model gives the best R-square so far, as the model explains 46% of variance. The compromise model gives the correct estimates of standard errors and the estimates of the time-invariant variables' effects on the democratic governance controlling for their possible correlation with the unit effects. The results indicate that cooperation with the EU, dependence of a province on the natural resources and the number of energy companies operating in the province have statistically significant effects on the level of democratic governance (energy –negative, cooperation with the EU-positive), as theoretically expected. Composition of provincial political elites is still an insignificant factor, while urbanization and distance from Brussels are significant positive factors indicating that the level of urbanization and geographic location of a province in respect to the EU have a positive impact on its level of democratic governance. Ethno-cultural heterogeneity is a statistically significant factor negatively affecting the level of democratic governance in the provinces, as also theoretically expected.

In order to find out if the model needs to be corrected for possible autocorrelation of the idiosyncratic disturbances, it is necessary to determine whether there is first order autocorrelation

between the idiosyncratic error terms. That is a direct effect from the error term as one time period to its value in the next time period.

Woolridge test is used for identifying possible autocorrelation. The test compares the correlation of the residuals from the first difference model to its expected value under the null hypothesis. This value is -.5. The null hypothesis suggests no autocorrelation. $\text{Prob} > F = 0.91$, this is under the critical value of significance. Therefore, the null hypothesis that there is no first order autocorrelation is accepted. So, it is not appropriate to apply the model that corrects for possible autocorrelation of idiosyncratic disturbances.

Therefore, it is possible to conclude that the Plümper-Trauger's model is the most preferable one for this kind of analysis and this model's estimates should be considered most accurate in explaining variation in democratic governance in the Russian provinces.

The analysis seems to have interesting results, which are consistent with the literature, except for the composition of political elites, but there are certain explanations to this. The fact that the percentage of seats in the provincial governments occupied by the communists happened to be an insignificant factor can be explained by the Russian context, where the communist party adapted to the realities of the market economy, and at the same time democratic parties, such as LDPR or DPR can not boast of much better policies and more efficient approaches to governance than the communist party, because still the whole system largely lacks accountability and transparency and the economy is too dependent on commodity exports. Additionally, resource wealth seems to be playing a role in fueling the growth of sub-national bureaucracies and adoption of inefficient policies (no matter if the local government is communistic or democratic). The analysis proved that at the 'natural resources curse' theory widely discussed in political economy literature can be applied to the sub-national level of analysis. The results also

indicate that there is strong positive correlation between cooperation with the EU and the level of democratic governance in the province. Therefore, it is possible to conclude that the results of the analysis support the research hypothesis.

E. SUMMARY OF FINDINGS

The analysis showed that there is a statistically significant positive correlation between cooperation with the EU and the level of democratic governance in the Russian provinces. Therefore, the provinces involved in cooperation with the European Union are likely to enjoy higher levels of democratic governance than the regions that do not interact intensely with the EU.

While proximity to the EU happened to be not a very big factor in explaining variation in democratic governance in the Russian regions, it is still significant indicating that regions located much further away from the EU will have lower level of democratic governance.

Another important result of the analysis indicates that the dependence on natural resources and the existence of energy companies in the provinces hamper their economic development and hinder the adoption of good governance policies. As mentioned above, this finding is consistent with the wider political economy literature on the resource-based economies. It is also important to note that urbanization positively affects and ethno-cultural heterogeneity negatively affects the level of democratic governance in the Russian provinces.

IV. EU-RUSSIA REGIONAL COOPERATION AND ENERGY STRUCTURES

A. NETWORK PERSPECTIVE

Longitudinal analysis of democratic governance showed an overall tendency that cooperation with the EU has a statistically significant positive effect on the level of democratic governance in the Russian provinces, and energy (region's dependence on natural resources and the number of energy companies operating in the region), in turn, negative. However, it is important to see through which mechanisms these effects take place and what the structural properties of the variables are. Both factors have a complex infrastructure in the regions: regional cooperation is composed of multitude of projects, initiatives and partnerships involving all kinds of regional actors and relationships among them, and energy companies also form certain structure in the regional energy sector. Regional cooperation and energy variables should be further analyzed in respect to their strength, intensity and structural characteristics. Russian northwestern region and southern region form a good basis for the analysis of the regional cooperation and energy variables, as both regions are involved in specific EU-related regional structures – Northern Dimension and the Black Sea Synergy; however, the level of democratic governance in the northwestern region is significantly higher than in the southern region.

Regional cooperation between Russia and the EU and regional energy structures are complex network systems. Different types of agents in the regional cooperation arena- organizations, provincial governments, firms, public institutions, universities- interact with each other by participating in EU projects, establishing joint initiatives and organizing joint events

with their respective partners in the EU countries; the agents seek to adapt to emerging cooperation opportunities and the whole system constantly evolves and changes. As far as the energy structures are concerned, energy companies interact with provincial governments over a number of issues and both types of agents seek to adapt to new regional circumstances. The present analysis of the EU-Russia regional cooperation and regional energy structures is focused on the properties of the whole systems of regional interaction and aims at explaining systemic differences and structural changes in the Russian northwestern and southern regions. It is important to understand patterns of interaction and agents' strategies in the complex regional systems to be able to predict later events and systems' impact on social, economic and political life in the regions.

A practical approach to studying complex network systems is network analysis. Network analysis is based on multidisciplinary science, but at the same time with its own distinct way of analyzing complexity. According to Semitiel Garcia (2006, p.6), by specifying how connected systems are connected and by examining the relationship between the structure of networks, the patterns of interaction among network actors, and collective dynamics, the science of networks can help us explain the world. In social sciences, the network perspective is usually called a research methodology that provides a distinct view for the study of actors of any type as related social actors (Newman, Barabási, and Watts, 2006, p. 4; Semitiel Garcia, 2006, p.6). A social network is broadly defined as a social structure made of nodes/actors/agents (which are generally individuals or organizations) that are linked by specific types of interdependency, such as friendship, kinship, financial exchange, trade, common projects or initiatives, business deals, etc. (Semitiel Garcia, 2006; Freeman, 2006; Wellman, Barry and Berkowitz, 1988; Scott, 1991). The

resulting graph-based structures are usually very complex and dynamic. Networks can develop at various levels – individual, organizational, interorganizational, and international.

This study focuses on interorganizational networks at the regional level. For the purposes of this study, regional cooperation network can be defined as a structure consisting of network nodes (or agents) represented by all kinds of cultural, educational, economic, and civil society organizations and provincial governments and links among those agents- complex interactions through regional projects, partnerships, business deals, and cooperation initiatives. As far as energy network is concerned, it can be defined as a structure consisting of agents- energy companies operating in the regions and provincial governments- and links among those agents- interactions through formal relations (*e.g.* regional public officials serving on companies' board of directors or participation in common energy regional projects) or informal relations (*e.g.* personal connections or lobbying activities).

There is an extensive literature dealing with the analysis of interorganizational relations and presenting theoretical explanations of the emergence of complex systems- interorganizational networks- at different levels (Oliver and Ebers 1998; Alter and Hage, 1993; Mizruchi and Galaskiewicz, 1993; Jarillo, 1993; Ebers and Jarillo, 1998; Sydow, 1998; Borgatti and Foster, 2003; Brass, Galaskiewicz, Greve, and Tsai, 2004; Monge and Contractor, 2004).

Different aspects from the following theories can be applied to this study in order to explain the emergence and the development of regional cooperation and energy networks:

- Theory of self-interest: theory of social capital and transaction cost

Regional cooperation framework creates an opportunity structure that provides economic, social, and cultural benefits and geographical mobility for various organizations, institutions, firms, and provincial governmental bodies in the Russian northwestern and southern regions.

Therefore, different actors voluntarily enter this structure and deliberately choose to use the resources offered by it: additional financial support, opportunity to make foreign partners, improve information processing capabilities, lower uncertainty and reduce transaction costs by fostering economic activity; opportunity to learn more about regional environment by establishing strong contacts and socializing with diverse regional actors, and a chance to occupy a prominent position in the region by becoming connected to important actors in the regional socio-economic, cultural and political arenas. As far as the energy structures are concerned, energy companies are motivated to establish contacts with provincial governments so that they can influence political situation in the regions for their own economic benefit, and provincial governments are interested in connections with energy companies because of revenues for provincial budgets and bribes. In Russia, the oil and gas sector is one of the most prone to bribery of public officials, corruption and state-sector capture. Energy companies operating in the regions often exert undue influence on the policies, decisions and practices of provincial governments by ‘otkati’, big bribes to public officials.

- Theories of mutual self-interest (jointly rather than individually self-interested) and collective action: collective action and adoption of innovations and collective action and mobilization

Participation in regional cooperation projects and partnerships enables Russian and European actors to share information and develop innovative strategies to deal with common cross-border or region-wide problems (e.g. solving environmental problems in the Black Sea and the Baltic Sea regions or building regional transportation systems); facilitates exchange of technology and managerial practice, strengthens local structures and increases the awareness of mutual interdependence through constant interaction and collective action. Russian and

European civil society organizations and human rights groups are interested in mobilization and enhancing capacity for joint action to tackle common ethnic and cultural issues such as preserving the culture of Finno-Ugric people living in the Russian republic of Karelia and bordering Finland.

The overall activity of the civil society sector in Russia has declined in the last few years owing to the new NGO regulations and the lack of financial support; therefore, regional cooperation with the EU is seen as a crucial opportunity by civil society organizations in the Russian northwestern and southern regions.³²

Energy companies are more individually rather than jointly interested in establishing contacts with provincial governments due to the competition for occupying controlling positions in the provinces; however, both in the northwestern and the southern regions there are important trans-regional energy projects such as Nord Stream and Blue Stream, around which companies jointly cooperate. Additionally, from time to time energy companies form strategic alliances to exert stronger pressure on local governments. For example, in 2004 in the southern region several energy companies allied together to raise gasoline prices by about 25% and put pressure on provincial governments so that they do not question the sharp increase in prices (Golomolsin, 2004).

³² On April 17, 2006, the Russian Federal Law “*On Introducing Amendments to Certain Legislative Acts of the Russian Federation*” (known as “NGO Law”) entered into effect. It introduced a number of new requirements for public associations (PAs), non-commercial organizations (NCOs), and foreign nongovernmental non-commercial organizations (FNNOs). The new requirements enhanced the supervisory powers of the state over civil society organizations and expanded the grounds upon which an organization's application to register can be denied by the registration authority, known as *Rosregistration*. However, civil society organizations participating in the regional cooperation with the EU appeared to be least affected by the new regulations due to the peculiarities of the regional cooperation legal framework and constant financial support offered by regional partnerships. For more information, see ‘Some Issues Related to Russia's New NGO Law’ By Natalia Bourjaily, *The International Journal for Not-for – Profit Law*, Volume 8, Issue 3, May 2006

- Cognitive theories: network organizations and knowledge structures, cognitive social structure and cognitive consistency

Network is a system of interconnected actors who interact and establish relationships with each other for mutual assistance or support. Networks facilitate communication and negotiation among agents, promote knowledge sharing, contribute to organizational learning and foster a culture of innovation and change (Cannarella and Piccioni, 2008). Different organizations on the Russian and the EU side form networks and use connections to each other as a tool for effective knowledge exchange. For instance, Russian northwestern ethno-cultural organizations used partnerships with their European colleagues and links to the European Heritage Network to develop expertise on the sustainable use of cultural heritage and acquire good practices for innovative heritage strategies, for example in respect to the management of historic sites in the northwestern region (Lagunin, 2007).

As far as the energy structures are concerned, by interacting with each other and with provincial governments, and also by collaborating with European partners on the regional energy projects, energy companies share information and knowledge on new exploration and production technologies, develop subsea expertise, learn to respond to emerging regional trends, anticipate risk effectively, improve performance and operate more efficiently. At the same time, through close contact with provincial governments, energy companies learn about and take measures against various regional actors that might negatively affect their business such as environmental organizations, human rights groups, and labor associations.

- Exchange and dependence theories: leadership, resource dependency theory and power in interorganizational networks

Dependence theories view organizations as complex entities that interact intensely with their environments rather than operate independently from external factors. Pfeffer (1981) defines organizational success in resource dependency theory as organizations maximizing their power or, in other words, their ability to control resources. Dependence theories interpret the links among organizations as a set of power relations based on exchange of resources. According to the resource dependency theory, organizations lacking resources and information will seek to establish relationships with other organizations, thereby becoming dependent on them, to obtain needed resources (Wallis, 2008). Resources are controlled by the political, economic and social actors and can be capital, technology, commodities, commercial markets for goods and services, labor, equipment, knowledge, and expertise (Hatch, 1997, p. 78). As the environment becomes more complex and uncertain and dependencies increase, organizations seek closer relationships to facilitate information and resource exchanges. Also, organizations are interested in changing their dependence positions, therefore they try to minimize their own dependence or increase the dependence of other organizations on them (Ulrich and Barney, 1984). Within this perspective, organizations are viewed as actors constantly changing their structural positions and patterns of interaction to obtain needed resources (Pfeffer and Salancik, 1978). Thus organizations try to modify their power to acquire the external resources.

Regional cooperation between Russia and the EU offers important resources for all sorts of organizations and firms such as additional financial support for concrete projects and initiatives, legal framework for establishing direct contacts and making partners, opportunity for information and knowledge exchange. Therefore, different actors in their attempt to use the offered resources interact with each other by engaging in joint initiatives and concluding deals and partnerships. These complex interactions form a network and create dependencies in this

network. As dependencies in the system increase, actors seek closer relationships to improve information exchange, acquire better knowledge of changes occurring in the system and enhance their stability in the system. The power of actors in the network comes from the degree to which an actor within a network has many relationships and is at the center of those relationships, thereby performing a coordinating function. Since there is competition for resources, actors try to manage their dependencies and form coalitions; those coalitions or groups then try to adapt to new regional circumstances and alter their structure and patterns of behavior to acquire and maintain resources emerging from the regional cooperation. Therefore, different centers of power emerge in the network and certain groups of actors become more powerful and less dependent on other groups in the system. Any change in interaction patterns leads to change in power in the network.

The same holds true for the energy structures: competition for resources (*e.g.* shares in regional energy projects, joint deals, raw materials, exploration and production opportunities, capital, economic benefits, ability to control and influence political situation in the region, information on regional actors) makes energy companies establish contacts with provincial governments and each other. This web of interactions and relationships forms a network with its own structural peculiarities.

- Theories of network evolution

Organizational communities are usually defined as populations of organizations that are linked together by networks of relations in overlapping resource niches (Monge, Heiss, and Margolin, 2007). Organizational and evolutionary theorists and researchers have traditionally studied organizational populations by examining organizational attributes (such as size, diversity, learning capabilities, etc.) rather than the kinds of relationships among organizations and ties

linking them. However, recently various scholars have shifted attention from attributes, interests and motivations of individual organizations to the properties of the groups of organizations and more complex networks in which organizational activity is reproduced; they started to emphasize the need for considering structural relationships among organizations to be able to fully understand the evolution of organizational communities (Banks and Carley, 1996; Doreian and Stokman, 1997; Young, 1998; Jackson and Watts, 2002; Monge, Heiss, and Margolin, 2007 among others). Monge, Heiss, and Margolin (2007) apply evolutionary theory to networks of different organizations and examine evolutionary principles explaining the emergence, development, maintenance, and demise of network connections.

According to the evolutionary theory, organizational survival, development and success are dependent on the development of inter-organizational linkages and the changes in structural position of an organization in the network. The evolutionary theory emphasizes the importance of path-dependency: the future development of an organization in the network and the development of the whole network are affected by the path they have traced in the past (Grabher, 1997). Gulati and Gargiulo (1999) argue that “organizations enter alliances with each other to access critical resources, but they rely on information from the network of prior alliances to determine with whom to cooperate”. Prior linkages can supply trustworthy information about the availability, capabilities, success, and reliability of potential partners. According to scholars, the new linkages modify the existing network, thereby creating a dynamic between interactions among organizations and network structure allowing for the emergence, formation, and development of interorganizational networks.

From the evolutionary perspective, the present structure of regional cooperation and energy networks and their effectiveness are path-dependent on previous interactions and linkages

among the actors of these networks. Therefore, it is important to examine these networks from a longitudinal perspective to be able to predict future development of these complex systems and draw implications for social, political, and economic activity in the regions.

B. NETWORK METHODOLOGY: PRINCIPLES, CONCEPTS, TOOLS, TECHNIQUES, AND ADVANTAGES

A particular characteristic of the network methodology is its structuralist nature, because the main focus for analysis is the linkages among the actors, rather than individual actors. “The networks and their structures are studied by analyzing the relations maintained among agents, in contrast to traditional analyses focused on the attributes of the actors” (Semitiel Garcia, 2006, p.8). Therefore, network analysts define network variables and categories in terms of the patterns of interactions and relations among actors, rather than attributes of individual actors. Information about network structure is used to test theories; however, information about attributes of individual agents can be used to complement the analysis. For instance, it can help determine whether there are systematic factors that have an impact on the interactions among agents of the network.

Wasserman and Faust (1994), outline the following principles of the network perspective, which are relevant for this study:

- Actors and their actions are interdependent rather than independent, autonomous units.
- Linkages between actors are channels for the flow of resources of any kind.
- Network models conceptualize social, economic, and political structure as lasting patterns of relations among actors.

“The network perspective has certain basic concepts, which contribute to the development of a proper method of analysis and the acknowledgement of the perspective as a methodology, or even a paradigm” (Semitiel Garcia, 2006, p.6). These concepts include

networks, embeddedness, weak and strong ties, bridges, structural holes and social capital; all of these focus on the understanding of diverse types of groups of related social actors (Burt, 1992; Semitiel Garcia, 2006; Jackson, 2008). As mentioned above, the network methodology can be applied to the analysis of groups of related actors of any kind: individuals, firms, organizations, institutions, regions and countries, groups of countries, or even whole world economic, political, and social systems. The unit of analysis in the network methodology is an entity (structure) that consists of a collection of actors, and the relationships (linkages) among those actors. The network methodology is applicable to the present analysis of EU-Russia regional cooperation and energy systems, as there is a collection of agents in these systems that are acting in a social structure as related agents.

Structuralist perspective assumes that the structural position of agents in their relational set explains the constraints and the opportunities emerging for them in the system and the patterns of their behavior, and influences the probability of achieving some objectives (Semitiel Garcia, 2006). The focus of the network analysis is therefore the structure of relations in a group of actors and the properties of the whole system where the actors interact and exchange information, resources and ideas. According to Semitiel Garcia (2006, p.8), “from a methodological point of view, the network perspective is not reductionist but holistic, as opposed to individualistic, and interdisciplinary; ...actors are purposeful, intentional agents, with social and economic motivations, and their actions are influenced by the net of relations in which they are embedded”. From the network perspective, the agents’ behavior and the results of agents’ actions can be explained by the structure of the network. At the same time, it is not only that the actions of the agents are influenced by the structure, but the structure of the network is in turn shaped and influenced by the agents’ interactions. Degenne and Forse (1999, p. 2) claim that

“Network Analysis analyses overall relations in an inductive attempt to identify behavior patterns and the groups of social strata that correlate with those patterns;... it... identifies the concrete constraints of structure on behavior at the same time as it uncovers constraints on structure from group interactions”.

Therefore, actors in a network have a capacity to modify the original network structure through the effect of interactions among them (Semitiel Garcia, 2006, p.9). Social network analysis scholars argue that complex interactions among network agents create structural interdependences among them, and agents also have a capacity to impact each other through these interdependencies (Wellman 1988; Wasserman and Faust 1994). Therefore, links among network actors have important consequences for every participant of the network: the relationships a given actor has with others in the system affect its perceptions, norms, beliefs, values, visions, ideas, and behavior.

Emirbayer and Goodwin (1994) stress the importance of both direct and indirect (through other actors) connections among actors in explaining social networks. Granovetter (1973) is concerned with qualitative characteristics of links between agents. He differentiates between strong and weak ties. Actors that belong to the same group and interact with high frequency are argued to be linked by strong ties, and the member of a group is linked to the member of another group by a weak tie. “High cohesion of the network with many strong ties, and therefore, high density, implies feasible cooperation and coordination among the agents building the network” (Semitiel Garcia, 2006, p. 12).

At the same time, the actors linked by a weak tie belong to different groups and the weak tie serves as a bridge between groups. Strong ties are important for cohesion in networks; however, according to Granovetter (1973), systems lacking weak ties will be fragmented and

incoherent hindering the exchange of information and resources and the spread of new ideas, and network subgroups will be separated by social class, professional field, or any other characteristics. The abundance of strong ties and the lack of weak ties can lock actors into a clique and prevent information from spreading and changing the system. Weak ties are crucial in networks, because they bridge groups, facilitate information exchange between networks of strong ties and provide actors of the network with access to resources of different kind beyond those available in their own groups (Granovetter, 1973). Weakly connected networks form what Burt (1992) calls 'structural holes'.

A structural hole is "a separation between non-redundant contacts" (Burt, 1992). An agent/group bridging the gap and connecting two otherwise disconnected agents/groups is playing a liaison, or broker, role (Scott, 1991; Burt, 1992, 2001). In interorganizational networks, brokers filling structural holes are claimed to have important strategic advantages in the system by controlling communication and the flow of ideas, information and resources. Agents occupying central positions in networks are also strategic, as other agents are dependent on them. Central positions are associated with power, control, authority, and prestige (Bonacich, 1987; Boje & Whetten, 1981; Galaskiewicz, 1979). According to Semitiel Garcia (2006, p 17) "organizations in strategic exchange positions with other organizations are key diffusers of knowledge and behavior strategies". The relational structure of the network is a resource emerging from it that can be used to the benefit of all the agents of the network, or exploited by certain agents or groups of agents, depending on the structural peculiarities of the network.

Network analysts believe that the structural perspective is "deductively superior to normative action", as it allows deriving hypotheses from rigorous algebraic representations of network systems by analyzing various network models (Semitiel Garcia, 2006, p. 11; Burt, 1982).

Network structures and substructures can be rigorously analyzed using a set of network analysis tools, which are uniquely designed and developed to address specific research questions of interest. Social network analysis is characterized by a distinctive methodology encompassing techniques for collecting data, statistical analysis, visual representation, etc.³³ Depending on the focus of research and the level of analysis, scholars may study structural attributes of nodes in a network such as centrality, different characteristics of ego-networks (a focal node (ego) and the nodes to whom ego is directly connected to plus the ties among them) such as strength of ties, size, density, composition; or they may analyze network clusters or structural features of the whole network such as group centrality, core-periphery relations, power structure, network centralization and network cohesion.

This research is mostly focused on the analysis of the network-level characteristics of the EU-Russia regional cooperation and energy systems, since the main aim of the study is to compare whole systems in the Russian northwestern and southern regions and look for structural explanations of regional differences. This is what Kilduff and Tsai (2003), among others, refer to as focusing on the ‘whole network.’ Over the past decade, there has been a steady increase in the number of studies focusing on whole interorganizational networks; however, network-level research has primarily been theoretical or based on descriptive case studies performed at single point in time (Provan, Fish and Sydow, 2007).

The social, political, or economic environment in which agents operate is characterized by a particular structure in which they behave according to their interests and preferences (Semitiel Garcia, 2006, p.9). Nohria (1992) points out that the most significant elements in an organization’s environment are other organizations and the patterns of relations among them.

³³ For more information, see Analytic Technologies website: <http://www.analytictech.com/networks/whatis.htm>

According to Uzzi (1996, p. 675), the type of network in which an organization is embedded defines the resources and opportunities potentially available; its position in the network and the types of inter-organizational ties it maintains define its access to those resources and opportunities. By structurally defining the organizational environment, network analysis makes it possible to answer behavioral research questions. Sociologists and organizational scholars have made considerable progress in explaining behavior of organizations in terms of their embeddedness in networks (Putnam, 1993; Granovetter 1973, 1985, 1992; Powell and Smith-Doerr 1994; Stevens, Rooks, and Brown, 2008).

Although network perspective has mostly been applied to the interorganizational analysis of non-profit organizations and associations (where social interaction is seen as an indispensable attribute of organizational life), there have been several comparative empirical studies of whole networks in economics that explained the behavior and performance of economic organizations as interacting and exchanging economic actors (Scott, 1987; Krackhardt, 1992; Perrow, 1992; Swedberg 1994; Uzzi, 1996; Semitiel Garcia, 2006). Norhia (1992) speaks about the importance of applying the network perspective to economic analysis, especially the study of the emergence of new economic actors, the expansion of industries, the formation of regional districts, and the dynamics of economic systems. According to Granovetter (1985, 2005), interactions among economic actors are embedded in a net of social relationships, and abstracting economic actors from such a net will lead to problems with internal validity. Uzzi (1996, p. 674) argues that “embeddedness refers to the process by which social relations shape economic action in ways that some mainstream economic schemes overlook or misspecify when they assume that social ties affect economic behavior only minimally or, in some stringent accounts, reduce the efficiency of the price system”.

Coleman (1988, p. S97) claims that the embeddedness is an “attempt to introduce into the analysis of economic systems, social organizations and social relations not merely as a structure that springs into place to fulfill an economic function but as a structure with history, continuity that gives it an independent effect on the functioning of economic systems”. Wilkinson (1983) offered a similar approach for the study of economic actors: he argued that it is important to consider social connectedness among economic agents.

Though a lot of attention has been paid to the analysis of interorganizational linkages, studies of interorganizational systems have mostly focused on agents of a particular type: NGOs, firms, economic institutions, or productive sectors. There have been very few studies that focused on intersectoral interaction: interaction between private and non-profit actors, or public and private actors, or among actors from all three sectors. This study contributes to the intersectoral network research by looking at how actors from different sectors interact and behave in the regional cooperation and energy domains in the Russian northwestern and southern regions.

Network analysis has important methodological advantages relevant to this study. First, a network representation provides a holistic view of existing structures. Network data represent accurately measured relations among network actors and can be rigorously analyzed in order to examine interconnectedness of the network actors and the results of analysis are visualized in a clear and transparent fashion. It is possible to recognize at first glance the structure of all connections among network agents and distinguish between central and peripheral network components. Moreover, connections between components are shown in terms of quality and quantity, which reveals the strong and the weak spots in the analyzed network and enables to identify missing links.

Second, network analysis method provides useful tools for addressing one of the most important (but also one of the most complex and difficult), aspects of social structure: the sources and distribution of power (Hanneman and Riddle, 2005). As mentioned above, network analysis suggests that the power of individual agents is not an individual attribute, but arises from their relations with others, specifically from occupying advantageous positions in networks of relations. Whole social, economic or political structures may be seen as “displaying high levels or low levels of power as a result of variations in the patterns of ties among actors” (Hanneman and Riddle, 2005). The degree of inequality or concentration of power in a population may be indexed and rigorously assessed by using network analysis techniques. This can be very useful in the analysis of regional cooperation and energy structures, as understanding the distribution of power in these systems is key to understanding the complex dynamics between various actors and groups of actors of these systems and assessing their weight in the decision-making processes and their capacity to influence policy-making in the regions.

Third, network analysis is a strategic tool in policy analysis. It can help explain policy development by examining networks of actors preoccupied with a given policy problem, across the public and private arenas and throughout different levels of governance (Mikkelsen, 2006). The analysis of regional cooperation and energy networks is crucial for the evaluation of the regional cooperation and energy policies and participatory monitoring, as it is able to show the roles played by different network actors and the nature of linkages and relationships that develop among firms, organizations, institutions, provincial governments, and other regional actors over time. Understanding of resources, weaknesses, and strategic options of these regional systems can be significantly improved through the application of network analysis. For instance, network analysis can help an organization involved in the regional cooperation better understand its

opportunities for improving relationships and its status within a network; or it can help actors interested in the development of regional cooperation (e.g. EU institutions, European Bank for Reconstruction and Development, Russian Vneshtorgbank and other regional actors) see missing links in the cooperation system and determine the areas that need more support and encouragement. The principle of cause and effect in social network analysis means that knowledge generated by the analysis can be immediately put into practice. Knowledge of the structure and the composition of the network simplifies the calculation of the effect of measures taken and minimizes the risk of false assessments and poor decisions for policy-makers.³⁴

C. NETWORKS, SOCIAL CAPITAL, CULTURE, NORMS, VALUES AND TRUST

The relational structure of the network is a particular resource that can be used to the mutual benefit of the network agents (Semitiel Garcia, 2006, p.13). This structural resource is called social capital. “By analogy with notions of physical capital and human capital-tools and training that enhance individual productivity- ‘social capital’ refers to features of social organizations, such as networks, norms, and trust, which facilitate coordination and cooperation for mutual benefit. Social capital enhances the benefits of investment in physical and human capital” (Putnam, 1993, p.2).

There are many definitions of social capital and there is a considerable debate between scholars who take a functionalist approach to defining social capital and others who see it primarily in terms of particular structures and the resources that they convey. Functional definitions of social capital focus on social resources that constitute social capital (such as culture and values) and enable cooperation and collective action (Twigg, 2003; Fukuyama, 1995;

³⁴ For more information on the practical advantages of the network analysis, see FAS.research group, available at <http://www.fas.at/business/en/whysna/index.htm>

Newton, 1999; Coleman, 1990). For instance, Newton (1999, p. 4) defines social capital as the extent to which citizens are willing to cooperate with each other and engage in networks on the basis of interpersonal trust. Structural approach focuses on relational structure of networks and interprets social capital as a structural resource generated by collective action (Burt 1997, 2000; Borgatti, Jones, and Everett, 1998; Brass, 1992, and others).

In practice, both approaches have much in common, as functional approach identifies interpersonal and interorganizational networks as essential mechanisms for encouraging cooperative behavior, improving the efficiency of society by generating coordinated actions and achieving common goals. Coleman states that “unlike other forms of capital, social capital inheres in the structure of relations between actors and among actors. It is not lodged either in the actors themselves or in physical implements of production” (Coleman, 1988, 98). Nahapiet and Ghoshal’s definition of social capital, which interprets social capital as both the network and the resources that may be mobilized through the network, is most relevant to this study: “social capital is the sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or social unit. Social capital thus comprises both the network and the assets that may be mobilized through that network” (Nahapiet and Ghoshal 1998, p. 243).

According to Putnam (1993), relationships among social actors and norms existing in network structures instigate coordination and cooperation for the collective benefit of network actors. Social capital is also an important resource for individual agents, as through it each agent has access to and controls network resources such as information, knowledge, and benefits coming from collective action. Additionally, social capital reduces vulnerability of network agents depending on one or very few other agents to maintain their relationships in the network.

All social interactions, relations and structures facilitate some forms of social capital; therefore, social capital is generated by any network, regardless of its form, shape and size. However, social capital functions with different intensity depending on the structure of the network, because it emerges from the relations or links maintained among the actors constituting the network (Semitiel Garcia, 2006, p.13). Burt (2000) argues that depending on the structure of the network, the social capital factor may be more or less intense. Coleman (1988) highlights the importance of density in social networks as in a dense network participants will interact in more than one arena, which helps to create the conditions for generating social capital. It is generally accepted that the networks with strong links inside them, with high closure (density), and many weak ties acting as bridges through structural holes linking them with other networks are rich in social capital (Burt, 2000).

Burt (2001) defines social capital in networks in terms of network mechanisms such as network contagion and prominence, structural holes, and network closure. Network contagion and prominence mechanism concerns the social structure of a network that facilitates the transmission of knowledge, norms, beliefs, values, visions, ideas, and practices among network actors, which leads to shared expectations and interpretations and similarity in perception. With interaction come open communication, mutually defined goals, and trust. Network relations “lead to trust and, in turn, to embedded ties trust generates subsequent commitments, which leads to reciprocated exchanges, to concrete trust, and concrete trust again to embedded ties” (Semitiel Garcia, 2006, p 15). Structural holes mechanism refers to linkages to other groups and access to resources and information circulating in those groups. Network closure mechanism is about network density: denser networks have lower risks of cooperation and greater facilities for information and resource exchange.

In dense networks by creating an environment of trust and open communication, actors are able to strengthen relationships, resolve conflicts, meet needs more effectively, and increase individual and group effectiveness. Therefore, the structure of a network provides important information about its social capital. Depending on the structure of the network- as a function of its density and structural holes- social capital will be greater, coordination and collaboration will be easier, and therefore knowledge, resources and information will flow in a more efficient manner (Semitiel Garcia, 2006). Putnam (1993) discusses another structural feature that influences the intensity of social capital- network differentiation, which can be vertical (tape like) or horizontal (fabric like). The scholar argues that vertical networks represent hierarchy and dependency, which impede the development of social capital.

Social capital is currently seen as a crucial factor for democratic, economic, social, cultural, political and institutional development at any level (Coleman, 1988; Putnam, 1993; Semitiel Garcia, 2006; Gabriel, Kunz, Robteutscher, and Van Deth, 2002 among others). The emergence and development of social capital in modern societies is usually connected with the development of the civic (or third) sector- broad and diverse range of non-profit organizations, secondary associations, intermediary organizations, community associations, and think tanks which exist in almost every western society (Newton, 1999, p. 10). “The high numbers of associations in a locale increases civic vibrancy simply because associations are easy to reach and the costs for joining are low” (Maloney and Robteutscher, 2007, p. 53). Non-profit organizations and associations of various kinds are viewed as a key mechanism for fostering cooperation between citizens and enhancing trust in a society by providing a framework in which cooperative action facilitates the emergence of consensus and shared social norms and values (de Hart and Dekker, 1999; Putnam, 1993; Putnam, Leonardi, and Nanetti, 1995; Coleman, 1988,

1990). For instance, Putnam (1993) showed how in northern Italy the density and scope of local civic organizations facilitated the widespread dissemination of information and increased social trust among community members, thereby creating conditions for good governance, economic development, and democracy.

A particular feature of the civic sector is its network character, as various organizations engage in interorganizational networking by uniting for joint action, launching joint projects, participating in campaigns and concluding partnerships. Dense linkages among third – sector organizations help connect people with access to different information, resources, knowledge and opportunities for the collective good of citizens. Recent interorganizational network studies show that societies endowed with rich networks have better capacity to share knowledge and expertise and implement successful development projects (Galasso and Ravallion, 2001), alleviate poverty (Moser, 1996; Kozel and Parker, 2000), and resolve conflicts (Schafft and Brown, 2000). According to Narayan (2002, p 60), Scandinavian countries and the Netherlands, which have historically been characterized by high economic development, social cohesion and high levels of civic engagement, have the highest levels of cross-cutting ties in the world. Most comparative research on participation, interorganizational cooperation and civic activity places Nordic countries at the top of the list. Different scholars associate the unique northern European models of welfare and democracy with high level of interorganizational networking, which has been particularly efficient in the production of social capital (Rothstein, 2001; Gabriel *et al*, 2002; Maloney and Robteutscher, 2007).

Higher levels of social capital and democratic governance in the Russian northwestern region can be connected with the networking activity of the region, as it is highly engaged in regional cooperation with the northern European countries, while southern region cooperates

more with the southern European countries, which are characterized by less dense and developed networks. In general, in Russia there is the lack of legitimate social structure through which ‘the natural impulse towards sociability’ expresses itself (Woodcock, 2002; Fukuyama, 1995; Twigg, 2003). Regional cooperation with the EU both in the nonwestern and the southern regions creates such a structure, where various third-sector organizations engage in networking activity, thereby facilitating the development of social capital and generating trust and activism in the society.

Networks generate trust among their neighbors and norms and values arise from trust and reinforce trust (Streeten, 2002). It is generally accepted that networks are effective mechanisms of diffusion of norms and values. According to Ostrom, “networks of civic engagement foster robust norms of reciprocity” (Ostrom, 1990, p. 206). Morgan, Putnam, and Semitiel Garcia argue that norms and values are major factors in the social capital generated by networks (Putnam, 1993; Morgan, 1997; Semitiel-Garcia, 2006). Morgan (1997) claims that norms and values that emerge in the relational structures of networks facilitate cooperation and coordination and constitute the main root of learning in networks. The scholar points out that the current capitalist system is a learning economy and knowledge, competence, skills and organizational culture are the key flows in the interorganizational networks. Therefore, cooperation with European partners facilitates the transfer of European norms and values into the Russian local and regional arena and leads to shared culture and values.

Additionally, according to institutional theory (DiMaggio and Powell, 1983), in the process of interaction, organizations often mimic other organizations and start to become more similar to one another, a phenomenon called isomorphism. Galaskiewicz and Wassermann (1989) found out that under conditions of uncertainty, non-profit organizations were likely to imitate those organizations to which they had some connections. As mentioned above, for many

Russian non-profit organizations participation in the regional cooperation is a means of survival, therefore in this condition of dependence on their EU partners, Russian organizations are likely to mimic their organizational culture. As besides third-sector organizations regional cooperation involves actors from other sectors, they are also prone to EU influence through linkages to their European partners. Joiner (2001) found that local firms in less developed/developing countries often changed their organizational culture to mimic the culture of successful organizations from the more industrialized nations. Therefore, cooperation between more advanced European and Russian economic and business actors might positively influence business culture and foster economic development in the Russian regions. The same can be true for political organizations and educational institutions.

Regional cooperation provides a framework for intense interaction among civil society organizations, educational institutions, regional mass media, provincial governments, business and economic actors, thereby creating linkages among and within civic, private, public, and education sectors. Linkages among and within all these sectors are crucial for consensus, trust, and social learning in a society. According to Narayan (2002), links between different social groups are critical to both economic opportunity and social cohesion. In *Democracy in America*, Toqueville (1969) discovered that through such linkages Americans transferred their attitudes and practices from private sector to politics and vice versa, transporting the learning from their connections in one field to the other. “It is essential for citizens and civil groups to have access to timely and reasonably independent information about governmental action and performance” to include in decision-making processes those previously excluded from formal governance structures (Narayan, 2002, p 75).

Connection between civil society, education and private sectors is important for improving social responsibility of business. Through cooperation and collaboration, all the sectors can pool together scarce regional resources, knowledge, skills, technology, expertise and all other critical factors to strive for optimal regional growth and development. Regional cooperation projects and partnerships enable to identify regional environmental, economic, societal, and other problems and help to mobilize broad public support for solving these problems. Interconnectedness of actors participating in regional cooperation is critical for the success of cooperation, as “diffuse sets of social ties are crucial to the provision of informal insurance mechanisms and have important impacts on the success of development projects” (Woodcock, 2002; Galasso and Ravallion, 2001; Isham, Narayan, and Pritchett, 1995).

In the Russian context, collaboration among all kinds of regional actors is essential, because apart from regional cooperation with the EU, there is no consistent policy of intersectoral cooperation (Borodkina and Smirnova, 2007). However, for the proper functioning of a network in terms of successful implementation of projects, timely information exchange, generation of social capital, and diffusion of norms and values, there should be high level of cross-cutting ties in the system, which would make the system horizontal (Narayan, 2002). Otherwise, primary groups of actors will be exploiting the system for their own benefit and the system will be functioning only to the betterment of those groups. Such asymmetry of power in the system will lead to bribery, cronyism, corruption and stagnation (Narayan, 2002). A big problem in today’s Russia is the underdevelopment of civil society and increased governmental control over mass media, private and non-governmental spheres. This could be reflected in the way the cooperation networks are structured. Therefore, it is important to see whether cooperation networks have high level of cross-cutting ties and equal distribution of power,

thereby providing equal opportunities for the network agents, or are vertical and centralized around provincial governments hindering the diffusion of norms and values, and generation of social capital and trust in the regions.

Social capital theory stresses the importance of trust for the well functioning of civil society, enhancement of cooperation, civic engagement and democracy, and economic development (Putnam 1993; Putnam, Leonardi, and Nanetti, 1995; Uslaner 1999). Scholars differentiate between thin and thick trust: thick trust is generated by intensive and daily contacts between people, often of the same ethnic group, class, or local community (Newton, 1999, p. 12; Williams, 1988, p. 8), while thin trust is looser, more general and more sporadic social contacts, the product of weak ties (Granovetter, 1973). Thin trust is claimed to be generated by interorganizational networks and constitute strong basis for social integration and cohesion in modern societies (Newton, 1999, p. 15).

As interorganizational networks often cross the boundaries of nation-states, different researchers find out the emergence of trust and social capital not only in the same country, but also across international boundaries (van Deth, Maraffi, Newton and Whiteley, 1999; Anheier and Katz, 2005; Bennett, 2005). According to Niedermayer, there is evidence that the level of trust within the European Community is increasing (Niedermayer, 1995, p. 237). Aalto, Blakkisrud and Smith (2008) discuss the emergence of trust between Russia and the EU at the regional level due to increased people-to-people interaction through interorganizational cooperative initiatives, exchanges, partnerships and joint activities in the Northern Dimension, which foster mutual understanding, stability and development in the region.

Anheier and Katz (2005) point out that there is the need to study organizations as a network, with linkages in trade, economic partnerships, organizational culture, investment, travel,

cooperation, culture and knowledge-sharing which cross territorial boundaries. The scholars claim that network approach allows for the geographical extensity and internal intensity, or network density, to be modeled and mapped, where low network prevalence and density are associated with economic and geographical isolation, underdevelopment of civil society and lack of social capital and trust (Anheier and Katz, 2005; Pharoah and Williamson, 2008). Therefore, high interorganizational density of regional cooperation structures will be an important marker of high levels of trust and social cohesion in the northwestern and southern regions. Currently there are very few comparative empirical studies of interorganizational networks that stretch across territorial boundaries, and there are even fewer studies of sub-national-level interorganizational networks. This study contributes significantly to the interorganizational network research, as it offers comparative assessment of regional network structures and their impact on regional development.

Although all the networks are claimed to facilitate some forms of social capital and trust among network agents, it is not that such social capital and trust are always positive for the society. According to Levi (1996), under certain circumstances networks may generate ‘unsocial’ capital. Newton (1999, p 7) argues that different networks and associations have different capacities to produce social capital, at the same time some social networks have a capacity to produce unsocial capital. Isham, Kelly and Ramaswamy (2002, p5) express the same idea that social capital facilitated by networks can generate negative or positive externalities. Networks may stimulate inward and insular views and there are many cases where the social capital generated by the network was detrimental for certain groups or sectors of society or even for the whole society (Maloney and Robteutscher, 2007, p 8; Levi 1996, Coleman, 1990, Fiorina 1999, Robteutscher 2002). Terrorist organizations or networks of extremist groups like skinheads

are readily apparent examples of this. According to Robteutscher (2002), associational networks during the Weimar Republic impeded democratic development and fostered the rise and success of National Socialism. Therefore, networks and social interaction can promote detrimental ideology and/or cause illegitimacy, bribery, corruption, nepotism, cronyism, and crime (Streeten, 2002, p 44).

At present, scholars of social capital focus on examining under which conditions, which types of networks produce social capital that has a positive impact on democratic governance and economic development, and which types produce unsocial capital. Scholars argue that to produce positive social capital and function for the betterment of society, networks should be safe, participatory, inclusive, serve for common purposes and further collective interests, and comprise broad collective norms and values (Forrest and Kearns, 2001; Rose and Clear, 2002). Some scholars (Laïdi, 2006) specify that networks should promote democratic norms and values. EU-Russia regional cooperation networks satisfy these requirements, as regional cooperation policy and its activities are based on “internationally recognized principles, such as good governance, transparency and participation, sustainable development, gender equality, the rights of persons belonging to minorities, cultural diversity, social cohesion, fair working conditions and corporate social responsibility, non-discrimination, the protection of indigenous peoples and the support of further strengthening of the civil society and democratic institutions”.³⁵ Therefore, it is possible to say that social capital and trust generated by the regional cooperation networks have positive externalities, though might function with different intensity.

As far as the energy networks are concerned, longitudinal analysis demonstrated that energy companies have a negative impact on democratic governance and economic development

³⁵ For more information on Northern Dimension Policy Objectives, see http://ec.europa.eu/external_relations/north_dim/

in the regions due to rent-seeking effects, manipulation of resources by public officials to meet unpopular or even illegal objectives, complacency in policy-making, and creating absence of interest in economic diversification. Energy networks are not socially inclusive and they function only to the betterment of certain rent-seeking interest groups. Bribery and corruption are common interdependencies in energy networks. Instead of social cohesion and equality they generate unsocial capital and are detrimental for regional development. Therefore, the regional cooperation networks are qualitatively different from the energy networks, as the former facilitate social capital, while the latter generate unsocial capital. The structural characteristics, and also the functioning and development of these networks have diametrically opposite implications for democratic governance in the regions.

D. NETWORKS AND DEMOCRATIC GOVERNANCE

Interorganizational networks that produce social capital with positive externalities have a positive influence on democratic governance (Putnam, 1993; Putnam, Leonardi, and Nanetti, 1995; Kendall and Knapp, 1996; Warren, 2001). Their contribution to the development of democratic governance is multifaceted: they function as a barrier against totalitarianism and authoritarianism, provide a check on the excesses of government, create countervailing advocacy, facilitate social integration, promote cooperation, generate trust and reciprocity in a society, and serve as important venues for community members who wish to take part in decision-making processes (Robteutscher, 2005; Kendall and Knapp, 1996; Tocqueville, 1969; Maloney and Robteutscher, 2007). Different mechanisms through which interorganizational networks influence democratic governance are extensively discussed in the interorganizational literature.

Different scholars claim that interorganizational networks facilitate and encourage a vibrant political society: “associational vibrancy in the political sphere is the by-product of associational vibrancy in the social realm” (Maloney and Robteutscher, 2007, p 10; Putnam, 1993). According to Maloney and Robteutscher (2007), there is reciprocity between the social and political organizational dimensions and all associations and nongovernmental organizations have a potential to act politically. In addition, even non-political activities in the civil society sector can have important political consequences. Putnam (1993, 2000) and Toqueville (1969) perceived civil society networks as integrative social elements and important mediators and coordinators between citizens and public sector. Putnam (1993, pp. 89-90) argued that third-sector associations contribute to the effectiveness and stability of democratic government through ‘internal’ effects on individual members and ‘external’ effects on the wider polity and society. Internal effects are “the habits of cooperation, solidarity, and public spiritidness” and external ones are effective social collaboration and interaction between public and civic spheres generated by a dense network of secondary associations.

It is generally accepted that networks of third-sector organizations facilitate social and political participation and through integrative and participatory functions contribute to societal and democratic health. According to Warren (2001, pp.71-6), associational vibrancy creates developmental, public sphere and institutional democratic effects. Developmental effects refer to developing political skills (negotiation, bargaining, compromise, accommodation, etc.) and cultivating democratic norms and values (tolerance, mutual respect, respect for justice, the rule of law, minority rights and the rights of others etc.). Public sphere effects are related to the “formation of public opinion and public judgment”, as associations perform a public

communication function and play an essential role in bringing important community issues and problems into light. Institutional effects are about making and implementing public decisions.

Zmeril and Newton (2007, p 235) claim that the democratic potential of the third-sector organizations lies in their capacity to engage in networks with similar organizations, because connectedness is a necessary condition for organizations for achieving success in “putting community concerns on the public agenda and in making the interests of their constituents count in the public domain”. The authors argue (p. 241) that from a democratic perspective four aspects are important: organizational cohesion and diversity in a locality, interorganizational social and political connectedness, and the intra-organizational degree of voluntarism and activism. Newton (1999, p 15) expresses a similar idea that overlapping and interlocking organizations, which create a set of cross-cutting ties in a society, form the basis of pluralist democracy. Narayan (2002) explores interorganizational networks engaged in development projects and provides evidence that a high level of cross-cutting ties fosters good governance leading to positive social and economic outcomes. Rosenstone and Hansen (1993, p. 84) provide rigorous statistical support for the thesis that involvement in organizations and interorganizational collaboration promote political activism.

According to Olsen (1972, pp. 318), social involvement and cooperation increase the propensity for political involvement for a number of reasons:

- 1) social interaction and cooperation facilitates people-to-people interaction and individuals involved in organizational activities have a chance to meet with many new and diverse people; the resulting connections involve them into social affairs and then into public affairs and political activity,

2) participation in activities and joint events increases one's information, develops his/her negotiation, communication, and leadership skills and provides resources necessary for effective political action,

3) collaboration broadens people's horizon of knowledge and interests and attracts attention to important public issues and problems; therefore, public affairs become more salient for people.

Maloney and Robteutscher (2007, p.5) discuss important features of participatory democracy, which include nourishing the democratic spirit of individuals, making institutions more effective instruments of democracy, building community, encouraging cooperation and facilitating the generation of positive social capital outputs. Berry *et al.* (1993, pp. 55-56) are concerned with parameters of participation such as breadth and depth. Breadth of a participation effort refers to the extent that participation is inclusive and offered to every community member at every stage of the policymaking process. Depth concerns the extent to which the citizens who seek to participate have an opportunity to influence policy outcomes.

Some scholars are quite skeptical about participatory democracy warning against 'too much democracy'. For instance, Huntignton (1975) claimed that problems of governance in the United States stemmed from an excess of democracy, when political system experienced too much involvement on behalf of various social groups. Olson (1982) was also quite critical of excessive group activity making public sector pursue private interests of different groups. However, scholars are unanimous on the fact that some participation in political public realm is absolutely necessary for democratic governance, as the lack of participation in public affairs isolates many people from power sharing and hinders transparency and accountability of the public sector.

In Russia, in general, there is a critical problem of low levels of political activism and participation, as citizens are disconnected from public affairs at different levels- local, regional, national. Common citizens can hardly contact public officials and civil society organizations and various social groups have extremely limited access to politics. Explicit goal of non-governmental organizations is to influence policy-making (Maloney and Robteutscher, 2007, p. 53); in Russia organizations have very little opportunity to do so. EU-Russia regional cooperation creates an important bridge between the public sector and the needs of the community. Through inteorganizational collaboration and participation in various regional projects, initiatives, public forums and conferences, regional residents have an opportunity to meet with public officials, discuss common regional problems and find solutions to them, which ensures a more sustainable regional development in Russia and makes local governments more responsible to local needs and accountable to local citizens. Regional cooperation networks facilitate higher levels of transparency and public accountability in the regions by distributing information and generating knowledge that empower regional residents to make greater demands through more informed scrutiny of regional officials, business and cultural leaders.

According to Maloney and Robteutscher (2007), for democratic governance there have to be linkages between civil society and both the state and the market, as civil society has to “mobilize and activate influence on state-market mechanisms”. EU-Russia regional cooperation networks create such linkages. The participation opportunities that various actors taking part in regional cooperation offer for broader public increase social cohesion in the regions and foster the development of democratic competences. Additionally, by frequent interaction with their European colleagues, Russian political, economic, business, cultural and civic actors get exposed to European political, economic and organizational norms and values, and also culture and

perceptions existing in European Community. As EU countries are more advanced in terms of democratic governance, close relationships with European partners socialize Russian actors into a democratic culture, thereby fostering the development of democratic governance in the Russian regions. However, the effects of regional cooperation networks on democratic governance in the northwestern region and the southern region might have different intensity depending on the structural characteristics of cooperation networks.

E. REGIONAL COOPERATION AND ENERGY NETWORKS

Chapter II of this dissertation extensively discussed the peculiarities, characteristics and dimensions of EU network governance and policy networks existing in various policy arenas. The EU is often described in the public administration and public policy literature as a postmodern power that heavily relies on decentralization, participation, and multi-level governance involving complex networks in designing and implementing policies and delivering public goods. Public – private collaboration is common in Europe and there is a variety of linkages among public, private and nongovernmental actors. Institutionally, there is a significant number of various kinds of boards, councils and committees that incorporate into their membership individual citizens and members of the public.

In Russia, the government still relies on internal, hierarchical control mechanisms which are often ineffective and unable to address complex emerging problems. The government currently makes certain attempts to collaborate with nonprofit organizations and private agencies in delivering public goods, but it experiences serious fiscal problems due to high levels of corruption and lack of accountability mechanisms. Additionally, it tries to increase control over private and non-profit actors, which does not contribute to openness and cooperative spirit.

However, as discussed above, Russian regions vary a lot in terms of democracy and approaches to policy-making; therefore, there is significant variation in the patterns of governance at the regional level.

This study is focused on the regional cooperation networks, which are peculiar forms of regional network governance as interdependent interconnected private, public, and civil society actors cooperate in a more or less institutionalized infrastructure to address common regional problems – environmental, social, economic, cultural, and other, which often transcend the borders of single national governments and provincial authorities. In some areas cooperation arises from shared interests and values and common cultural and historical background or benefits that come from collective action such as common economic projects or building common transportation system.

Joas, Kern, and Sandberg (2007) explore transnational governance networks in the environmental sector in the Baltic Sea Region (which is geographically part of the Northern Dimension) and define them as ‘hybrid networks’ as they consist of diverse public, private and third-sector actors and are often constructed with a specific purpose to benefit from the heterogeneity of the actors. “According to the basic insights of interorganizational theory and political theory, hybrid networks give access to resources otherwise out of reach and also serve as arenas for actors who otherwise would not be able to influence policymaking” (Joas, Kern, and Sandberg , 2007). The scholars find out that governance for sustainable development in the Baltic Sea Region requires a combination of governance modes within as well as beyond nation-states and hybrid networks are extremely effective in solving complex regional problems.

The authors also claim that hybrid networks are beneficial for the funding organizations as they opened access to different kinds of information, expertise and knowledge, as well as to

economic advantages, and “gave the funding institutions (especially the EU) an opportunity to steer governance efforts independently from political actors at the national level”. At the same time, for non-profit organizations and general citizens the hybrid networks provided easier access to the regional decision-making than the more traditional forms of political participation did. These aspects of Joas, Kern, and Sandberg’s study are relevant to the present research, as it is also focused on the ways in which the EU influences governance at the sub-national level in the Russian regions that are involved in the EU-Russia regional cooperation initiatives.

It is possible to apply the term ‘hybrid networks’ to regional cooperation networks between the EU and Russia, which are based on the same principles as the Baltic Sea Region networks and involve multiple actors from public, private and third sectors. The main aim of this study is to examine the effects of the regional cooperation on governance, democracy, and interorganizational networking in the Russian northwestern and southern regions; therefore, it is mostly focused on the interorganizational networks that emerge on the territory of the Russian northwestern and southern regions as a result of participation of various regional actors in the regional cooperation processes. To grasp the full picture of the regional networking, this study is not limited to one particular policy sector, but tries to encompass all the areas of regional cooperation and applies structural longitudinal approach to evaluate the structural changes and the development of cooperation networks. It might happen that in the one region cooperation networks have a stronger influence on governance and policy-making and in the other they might be less effective. Structural characteristics of the networks will be important indicators of their effectiveness.

As far as the energy networks are concerned, they do not represent a pure form of network governance, where actors from all the sectors- public, private and civil society – engage

in a cooperative action to solve complex problems for the benefit of the whole society. On the contrary, energy networks serve to the betterment of particular interest groups and often hinder policy processes. For instance, using their formal and informal relationships with provincial governments, energy actors frequently interfered with regional environmental policy processes and impeded problem-solving performance by putting pressure on public officials to make decisions favoring their own interests (Chernitsin, 2008). Therefore, energy structures in the Russian context represent networks with negative externalities. However, it is crucial to take them into consideration as they have an effect on governance processes in the regions. By analyzing and comparing structural characteristics of the energy networks in the northwestern and southern regions, it will be possible to explain the intensity of their effect on policy-making in the regions.

F. NETWORK ANALYSIS OF THE REGIONAL COOPERATION AND ENERGY STRUCTURES

1. Advantages and Disadvantages of the Network Analysis as a Method

At present, there are two traditions in network governance analysis: policy network studies and social network analysis. These two traditions differ in research focus, methodology, analytical tools and data handling. Policy network studies focus on resource attributes of network actors and the process of negotiation and bargaining in an institutional format with a goal of achieving public purpose.

Social network analysis focuses on patterns of relations and structural attributes of nodes/agents in a network (whole network or ego network). As far as analytical tools and data handling are concerned, policy network studies use context-sensitive interpretation and

explanation and qualitative case studies, while social network analysis employs rigorous algebraic representations of network systems, structural/quantitative variables and formal model hypothesis testing.

This study is an example of social network analysis tradition. Analysis of resource attributes of network actors and the actual interaction processes is important for understanding how individual network actors function in the system and how the process of communication/negotiation/bargaining occurs. However, to be able to understand how certain network groups or the whole structure function, evolve and develop, it is necessary to study systemic features and peculiarities of network structures. Social network analysis allows analyzing structures consisting of a multitude of actors and enables to find actors or group of actors playing a pivotal role in the network exchange processes. The aim of the study is to grasp the full complexity of the regional cooperation and energy systems by analyzing their structural features and studying their development from the longitudinal perspective. Therefore, the regional cooperation and energy networks are treated as both dependent and independent variables, and it is hypothesized that different network configurations have different network-level effects on governance in the regions. Information about resource attributes of network agents will be also considered in this study to complement the analysis.

The main advantage of the network analysis as a method is that it allows capturing the configuration of the relations among a multitude of actors thereby making it possible to study systemic features of different interorganizational processes. Additionally, the network methodology has a developed set of tools that help to rigorously differentiate, systematize and evaluate different patterns of interconnectivity existing in the system and rigorously assess their impact on the system's exchanges. Network analysis is a very useful tool in the

interorganizational studies, as it allows for discovering the tendencies and the patterns in large systems that explain the way the systems function. In addition, according to Moloney and Robteutscher (2007, p 153), “social science knows a good deal about the sorts of people who join organizations, how many and what kind of people join, and the consequences of such membership for political attitudes and behavior. The great richness of individual survey data, however, contrasts with the black hole that surrounds our knowledge of interorganizational networking and contacts on the part of both voluntary associations and business organizations”. Therefore, in the case of complex systems existing in the energy and regional cooperation domains, where a multitude of different public, civil society, and private-sector actors engage in relationships that are characterized by different levels of strength and intensity, network analysis would be a very helpful tool in studying those systems.

As far as the disadvantages of the network analysis method are concerned, the main challenge of the method is deciding which actors to include in the network, or in other words, to define the network boundaries (Rowley, 1997). Selection subjectivity can affect the results of the analysis. In our case, threats to internal validity and reliability of the network data due to the subjectivity of the selected ‘target population’ were addressed through several means. First, a representative sample of actors interacting in the regional cooperation and energy domains was constructed for the analysis. The energy sample is exhaustive, as it involved all the significant actors in the regional energy sector and all the provincial administrations involved in the regional cooperation with the EU (for consistency with the regional cooperation data). As far as the regional cooperation sample is concerned, a big number of the actors chosen for the analysis (100 actors) and diverse range of actors (with all the sectors of cooperation represented by more or less same number of actors) enhance the credibility of the data and reduce selection error. In

addition, in our case, the main goal of the network analysis is to grasp the major tendencies and patterns of relationships existing in the complex regional cooperation and energy systems, therefore, a small sample selection error will not seriously affect the results of the analysis.

Another disadvantage of the network analysis is that it ignores the micro-level of individual actors and does not allow an in-depth analysis of their resource attributes. The network method is also not able to assess the context in which the regional cooperation and energy networks function. Understanding regional specifics is extremely important in explaining the factors that shape these structures and account for the structural changes over time, as regional cooperation and energy networks emerge and develop in a certain ethno-cultural, historical, geopolitical, and economic context that conditions their operation and development.

However, this analysis is specifically focused on the systemic features of the processes occurring in the regional cooperation and energy domains, and the experience of individual actors and regional specifics will be considered in the next chapter of this dissertation, which based on the in-depth interviews with various regional residents and experts.

2. Hypotheses

The study develops a series of hypotheses, which will be tested using Social Network Analysis tools and instruments.

Network-level hypotheses:

Hypothesis 1 (Network Centralization): both regional cooperation and energy networks are more decentralized in the northwestern region than in the southern region. Both networks become more decentralized in the northwestern region over time, while in the southern region the networks develop higher levels of centralization.

Hypothesis 2 (Network Centralization): the regional cooperation system in the southern region is centralized around one particular group of actors, while the northwestern regional cooperation network's most central actors are from different cooperation sectors.

Hypothesis 3 (Network cohesion): the northwestern cooperation network has higher degree of cohesion than the southern cooperation network and its cohesion degree becomes higher over time, while the cohesion of the southern cooperation network does not increase significantly over time. On the contrary, energy network is more cohesive in the southern region and the degree of cohesion increases significantly over time, while the level of the northwestern energy network's cohesion does not increase significantly over time.

Hypothesis 4 (Power): power is more equally distributed in cooperation and energy networks in the northwestern region than in the southern one; power relations become even more asymmetrical in the southern networks over time.

Hypothesis 5 (Core- periphery relations): core is bigger and more diverse in the northwestern networks than in the southern ones and core-periphery relations become more balanced over time (more organizations move to the core) in the northwestern region than in the southern region.

Hypothesis 6 (Network structure): the direction in which network exchanges take place is different in the regions. In the northwestern cooperation and energy networks the direction of exchanges is horizontal, while in the southern regions – vertical.

Hypothesis 7 (Strength of Cooperative effort): the strength of cooperative effort is higher and more evenly distributed in the northwestern regional cooperation networks than in the southern ones. The strength of cooperative effort increases in both regions over time.

Hypothesis 8 (Consensus and effect on decision-making): cooperation network in the northwestern region has better structural conditions for information exchange and achieves

consensus much faster than the southern cooperation network, therefore the northwestern network has higher impact on the regional decision-making processes. On the contrary, energy network has much better structural conditions for information exchange and convergence to consensus in the southern region than in the northwestern region.

Group-level hypotheses:

Hypothesis 1 (Cohesion within and among groups): cooperation networks in the northwestern region have more or less equal densities within groups and among groups; therefore, there is a high level of cross-cutting ties in the system. In the southern cooperation networks, there are lower levels of cross-cutting ties as there are big differences in the degree of density within and among groups.

Hypothesis 2 (Intersectoral linkages): in the northwestern cooperation network, all the policy areas are well-linked, while in the southern cooperation network there are absent linkages between some policy areas.

Node-level hypotheses (based on node structural and resource attribute data):

Hypothesis 1: An agent's degree of centrality and power in the northwestern cooperation network is a function of its size, level of activity in local environment, alliance proactiveness, and international competence. Power and centrality of an actor in the southern cooperation network depend on its size, budget/income, and whether it comes from the public sector.

Hypothesis 2: Power and centrality of an actor in the southern regional energy network is a function of its size and income.

Regional cooperation-intervention hypothesis:

Regional cooperation with the EU has statistically significant positive effect on the growth of linkages among various actors in the Russian northwestern and southern regions and on the

development of interorganizational networks in the Russian regions. However, in the northwestern region, EU –related effects are expected to be higher.

3. Modeling Regional Cooperation and Energy Networks

Regional Cooperation networks (partially analyzed in Turkina, 2009):

It is important to note that the northwestern and the southern regions that are included in the EU's Northern Dimension and the Black Sea Synergy do not coincide exactly with the administrative boundaries of the Russian Northwestern Federal District and the Southern Federal Districts. Certain provinces that are located further away from the borders are excluded from the majority of partnerships.

Representative samples of one hundred regional actors in each region were selected for this study.³⁶ The actors were selected from 8 provinces in the Northwestern Federal District excluding the Nenets Autonomous district and Komi Republic (as they are not covered by the majority of cooperation initiatives and are usually not included in regional partnerships since they are located further away from the Russian-EU northwestern borders) and 9 provinces in the Southern Federal District excluding the Republic of Chechnya, the Republic of Dagestan, and the Republic of Ingushetia (due to unavailability of data), and Volgograd province (as it is not covered by the majority of cooperation initiatives and is usually not included in regional partnerships as it is located further away from the southern borders).³⁷

The actors selected for the analysis include provincial administrations existing in the regions, economic and business actors, various non-governmental organizations and associations and other third-sector actors, educational institutions, local newspapers and media agencies, environmental organizations, and other regional actors participating in the regional cooperation

³⁶ Appendix of this chapter represents centrality and power scores of the 10 most central/powerful organizations

³⁷ For the complete list of the provinces, see Appendix of this chapter

with the EU. The data on the organizations were taken from the EU project databases, EU regional cooperation reports, the Northern Dimension and the Black Sea Synergy on-line resources, Euroregion's websites, Russian organizations' documentation and websites (information on European partners), and different local and regional newspapers, journals, and brochures.³⁸

The organizations were selected in a way that each sector of the regional cooperation was represented by a more or less equal number of organizations. In addition, the samples were also composed of more or less equal number of private and third-sector actors.

The literature on interorganizational networks mentions several ways of measuring relationships between organizations. Certain studies favor measuring the strength of the tie between two organizations in the network on the basis of a three-point, five-point, seven-point, or nine-point scale, where the highest number corresponds to the strongest alliance between the organizations (Singer and Kegler, 2004; Gulati and Gargiulo, 1999; Contractor and Lorange, 1988; Nohria and Garcia-Pont, 1991). Some studies measure network relations with binary data representing the presence (1) or absence (0) of a relationship (Rowley, Behrens and Krackhardt, 2000). Some studies use the measure of intensity or frequency of interaction; this is usually calculated as the number of transactions occurring per unit of time (Kalleberg, Knoke, and

³⁸ For information on Tacis, see the "Europa," the website of the EU: http://europa.eu.int/comm/external_relations/ceeca/tacis/; For information on the Northern Dimension initiatives, see http://ec.europa.eu/external_relations/north_dim/doc/index.htm; For information of the Black Sea cross-border programs, see <http://www.blacksea-cbc.net/index.php?page=MAP>; For information on the neighborhood initiatives, see http://www.delrus.ec.europa.eu/en/p_647.htm; For information on cooperation partnerships, see http://www.delrus.ec.europa.eu/en/p_258.htm; For ENPI programs, see http://www.together50years.eu/EN/mn3_hr/enpi.htm; For external cooperation programs, see http://ec.europa.eu/europeaid/where/neighbourhood/regional-cooperation/enpi-cross-border/index_en.htm; For Euroregions, see <http://www.siauliai.aps.lt/saule/about.html>, <http://www.euroregionbaltic.eu/members.php>, <http://euregio.karelia.ru/site/?lang=eng> Baltic Euroregion Network <http://www.benproject.org/en>. For the information about regional partnerships, see the websites of the provincial governments and Russian National Statistics Committee Reports (GOSKOMSTAT)

Marsden, 1995). Other studies interpret the intensity of the network tie as the number of joint activities or projects held together or the number of partnerships that an actor has, which reflects the degree to which an actor has relationships with other actors through a number of partnerships linking them together (Dyer and Singh, 1998; Gulati, 1995; Hagedoorn and Duysters, 2002; Koka and Prescott, 2002; Soh, 2003).

This study follows the last approach to measuring the strength of a network tie, but applies normalization to achieve consistency in dynamic range for the set of data. It employs normalized cooperative activity as a measure of an interorganizational tie. The normalized cooperative activity (NCA) is the number of joint EU-related projects/initiatives/deals/programs/activities that existed between two regional actors divided by the total number of cooperation efforts in the system. The NCA is an adequate measure of interorganizational relations in the regional cooperation systems, as the whole concept of regional cooperation and practical implementation of regional cooperation are based on joint cooperative measures and projects that help to link different regional actors together and form regional alliances. The normalized cooperative activity between two actors estimates well the level of cooperative effort and interaction among organizations involved in regional cooperation.

This study aims at assessing the complexity of regional cooperation systems and encompassing a multitude of organizations involved in regional cooperation. The data for this study were gathered from multiple sources: EU datasets of regional cooperation initiatives, Russian regional administrations' websites (they have elaborate sections on activities occurring in their regions), Russian database of trans-regional cooperation, Russian and European regional newspapers, organizations' websites, and other available sources.³⁹ In many cases, besides the actors enumerated in official program design documents, other regional actors were involved in

³⁹ For the complete list of data sources, see Appendix of this chapter

the implementation of cooperation program/initiative/partnership/project, therefore, it was important to consider them in the analysis. For instance, in the southern region it sometimes happened that provincial administrations were not mentioned in the project design documentation; however, in practice they took active part in the project by making decisions concerning public events designed by the project, or/and subjecting project finances to bureaucratic control, or making decisions concerning actors that had to be involved in or excluded from the project, or participating in project activities at different stages of project implementation. Or, as another example, many initiatives that were primarily designed for establishing cooperation among various economic actors included civil society actors, like in the case with the joint EU / Finnish /Swedish and Russian development program (northwestern region) called 'Euro-Russia regional development', which was designed to improve the investment conditions and networking of companies across the border between Russia and the EU through investment projects, however in its implementation process the program involved many actors from other sectors like Northwestern Association of Workers, Russian Institute for Radio Navigation and various environmental organizations. Or in some cases, actors that were initially included in the project design documents did not participate or withdrew from the program/project/initiative at an early stage of its implementation for different reasons.

Therefore, information about actual project participants was checked and verified with multiple sources including local newspapers, provincial websites, organizations' brochures and websites, and any information available on project events. Thus, the data on the relations between actors in the systems corresponds to the actual real information on cooperative activities in the regions.

The data was also checked with multiple regional cooperation experts to ensure that the samples selected for this study adequately represent regional cooperation and include all prominent actors in different sectors of regional cooperation.⁴⁰

At first, two-mode cooperation program/initiative/partnership/project by organization matrix was constructed for each region at time 1 (1999), when the majority of regional cooperation programs were already taking place since all sorts of regional partnerships in addition to already existing TACIS programs were launched in 1997 under the PCA agreement, and some of the regional programs including business and economic contacts were established before 1997; and then at time 2 (2006), when the latest consistent data on the regional cooperation were available. Then these four two-mode matrixes were converted into four square matrixes (organization by organization) and the data in the matrixes were normalized by the total number of cooperative activities in the system, so that the relationships between organizations in the matrix corresponded to the level of cooperative effort between the two actors. Therefore, the resulting matrixes represent valued graphs, where the strength of relationships in the diagrams is the normalized cooperative activity that existed between two actors. The data in the matrixes were symmetrized due to their reciprocal character.

The resulting matrixes were then converted into UCINET, NETDRAW and MATLAB files and analyzed with UCINET, NETDRAW and MATLAB tools and techniques.⁴¹ The

⁴⁰ For the complete list of experts, see the Appendix of chapter V.

⁴¹ UCINET is a comprehensive program for the analysis of social network data as well as other 1-mode and 2-mode data. The program is capable of reading and writing a multitude of differently formatted text files, as well as Excel files. It can handle a maximum of 32,767 nodes (actors). The analysis methods include centrality measures, subgroup identification, role analysis, elementary graph theory, and permutation-based statistical analysis. In addition, the program has strong matrix analysis routines, such as matrix algebra and multivariate statistics. For more information, please see <http://www.analytictech.com/ucinet.htm>
NETDRAW is a program written by Steve Borgatti for visualizing both 1-mode and 2-mode social network data. It can handle multiple relations at the same time, and can use node attributes to set colors, shapes, and sizes of nodes.

combination of these programs was necessary for the strength of the analysis, as each of the programs has its own advantages and disadvantages in measuring network characteristics and parameters.

Energy networks:

As far as the energy networks are concerned, all the significant energy companies operating in the regions and provincial governments were taken into consideration. As mentioned above, the southern region is rich in oil and gas resources compared to the northwestern region, therefore, there are considerably more energy companies in the southern region. Energy companies in the southern region are engaged in exploration and production activities as well as Caspian oil and other energy transit issues. Companies that operate in the northwestern region are mostly concerned with the transit pipeline issues and participation in new joint transit energy projects such as Nord Stream. Thus there are 23 actors in the southern energy system and 13 actors in the northwestern system. The network ties were measured by the strength of the relationship between two actors based on a four-point scale, where the highest number corresponds to the strongest relationship.

The strongest relationship (3) was considered a case when some share of an energy actor officially belonged to provincial government or a representative from a regional administration was officially serving on board of directors of an energy company; or two provincial administrations took joint measures in respect to regional energy policy issues, or if there was a strategic alliance between two energy companies that presupposed certain structural integration. If two actors participated in an energy-related project or any other cooperative initiative together,

MATLAB is a numerical computing environment and programming language. Maintained by The MathWorks, MATLAB allows easy matrix manipulation, plotting of functions and data, implementation of algorithms, creation of user interfaces, and interfacing with programs in other languages.

or if there were proven important informal links between two actors such as evidence of lobbying activities, or bribes (in the case of provincial governments), or personal connections (relatives of public officials occupying important positions in energy companies), their relationship was estimated as '2'. If two actors had any minor joint activity (participated together in a public event or consulted each other on certain issues) their relationship was estimated as '1'. The absence of relationship was coded as '0'. The data on the network relationships were gathered from multiple sources: national, regional, and local newspapers, media agencies and regional websites, websites of energy companies and provincial governments.⁴² In addition, representatives from energy companies were interviewed for the qualitative part of this dissertation, and during the interview they were also consulted on the strength of the relationship between the companies in the regional energy systems.

Therefore, 2 square matrixes were constructed for each region: one for 1999, and the other for 2006 to provide consistency with the analysis of regional cooperation systems. Since the data in the network are reciprocal, the data were symmetrized for the analysis.

The resulting matrixes were then converted into UCINET, NETDRAW and MATLAB files and analyzed with UCINET, NETDRAW and MATLAB tools and techniques.

4. Regional Cooperation Networks: Analysis

Network-level hypotheses:

Hypotheses 1 and 2 /Network Centralization

While collaboration has become common in different areas, there are few methods to assess and evaluate the effectiveness of cooperative initiatives. In the interorganizational field, network analysis can rigorously assess the degree to which and by whom information and other resources are exchanged in the network (Provan and Milward, 1995; Valente and Davis, 1999).

⁴² For the complete list of data sources see the Appendix of this chapter

For that reason, network analysis is the widely preferred method for evaluating the evolution and effectiveness of cooperative partnerships (Tanjasi, Tran, Palmer, Valente, 2007). Network analysis provides statistical measures of intensity of cooperative efforts within a network and the degree to which all the actors of the network have equal access to network resources, exchanges and opportunities.

It is generally argued that effective governance in collaboration networks depends on the degree of network decentralization (Putnam, 1993; Putnam, Leonardi, and Nanetti, 1995; Tanjasiri, Tran, Palmer, Valente, 2007; Joas, Kern, and Sandberg, 2007). Decentralization is associated with more efficient information flows, advanced intelligence and greater knowledge of cooperation processes and possible changes in cooperation structures (Zmerli and Newton, 2007). Decentralization and participation strengthen governance and build social capital in interorganizational systems (Narayan, 2002).

Network centralization in network analysis measures the degree to which an entire network is focused around a few central actors (Scott, 1991), which can affect the spread of information, resources, ideas and practices around those points (Tanjasi, Tran, Palmer, Valente, 2007). Irwin and Huges (1992) define network centralization as the degree to which a network is “dominated by a few places” and Tichy (1980) defines it as the degree “to which relations are guided by the formal hierarchy”.

In a centralized network, only one or a few actors are at the center of many network linkages, while in decentralized networks linkages are more or less equally dispersed around all the network actors. In centralized networks, central actors have significant influence and control over the circulation of information, resources and ideas and the spread of network resources to other actors. Once central actors receive a new idea in a centralized network, it may spread

rapidly; however, in most cases, given the position of control and power in the network, central actors act as bottlenecks and slow diffusion (Valente, 1995).

Another important negative feature of centralization is that if central actors in a centralized network are removed or damaged, the network quickly fragments into unconnected sub-networks (Krebs, 2008). Therefore, a highly central node can become a single point of failure in interorganizational networks. Krebs (2008) argues that “a network centralized around a well connected hub can fail abruptly if that hub is disabled or removed...while networks of low centralization fail gracefully”. Additionally, in a centralized network, if central actors get things wrong, or are pursuing their own agenda, they can easily hurt the whole network.

A less centralized network is considered a much better structure for cooperative effort, since it is “resilient in the face of many intentional attacks or random failures” as even if many actors or links fail, the remaining actors will still be able to reach each other over other network paths (Krebs, 2008). A less centralized network also better approximates the model of network governance extensively discussed in the previous sections. Therefore, centralization helps to measure how resilient cooperation networks are and how effective cooperation processes are in terms of equitable sharing of information, resources, influence, power, and decision-making capabilities among network actors.

Network centralization can be easily measured by means of UCINET program. The eigenvector approach is used to measure centralization of cooperation networks. Eigenvector approach is based on the measure of eigenvector centrality, which evaluates the overall importance of an actor in a network. The eigenvector measure is based on assigning relative scores to all network actors and treating actors that have links to high-scoring actors more central than those that have equal links to low-scoring actors.

Figure 10 represents regional cooperation networks visualized in NETDRAW at time 1 (1999), Figure 11 depicts networks at time 2 (2006), and Table 7 reports the networks' centralization indexes calculated by the eigenvector routine.

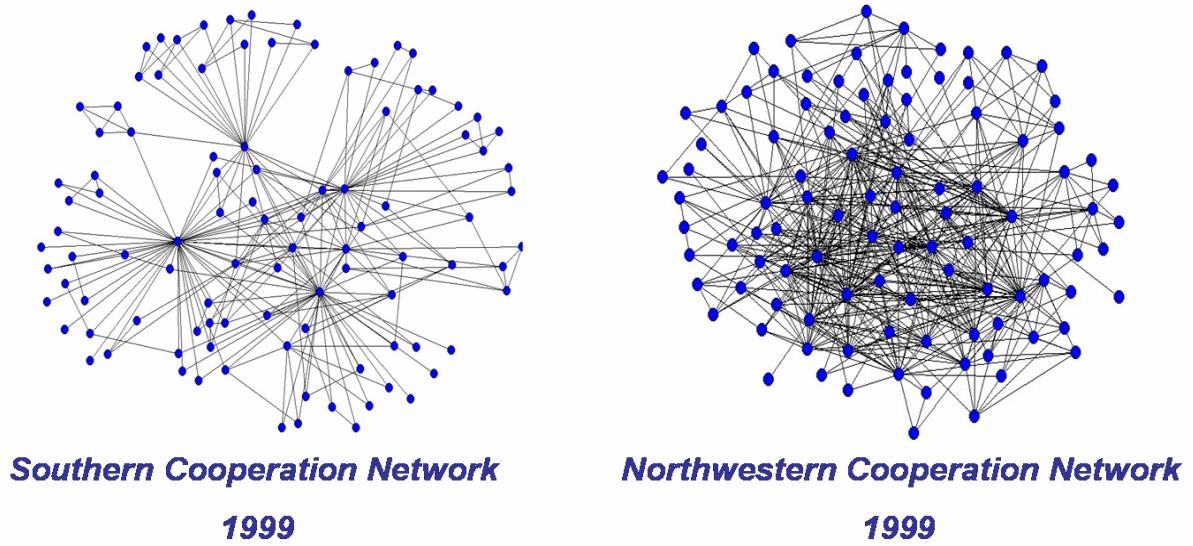


Figure 10: Regional Cooperation Networks, 1999

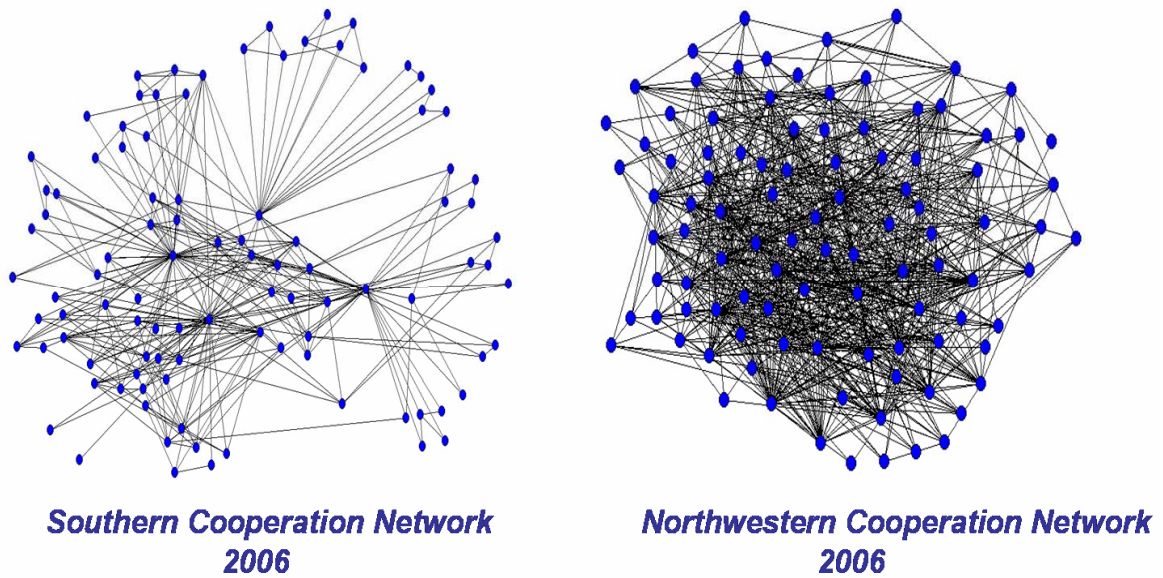


Figure 11: Regional Cooperation Networks, 2006

Table 7: Network Centralization

NETWORK CENTRALIZATION (N = 100)^a

	Centralization
Southern Cooperation Network 1999	61.32%
Southern Cooperation Network 2006	59.58%
Northwestern Cooperation Network 1999	32.17%
Northwestern Cooperation Network 2006	15.22%

^a The closer the centralization is to 100%, the more centralized the network.

It is even visually noticeable that the southern systems are more centralized than the northwestern ones. Centralization scores show important tendencies in the systems' evolutionary development. The southern cooperation network was more centralized from the very beginning than the northwestern cooperation network (61.32% compared to 32.17%) implying higher inequality in the distribution of distances across the actors. Therefore, the southern network was organized around several key actors who controlled and coordinated regional cooperation processes, while in the northwestern network coordination of cooperative efforts was more equally divided between network actors. In 2006, the southern cooperation network shows a slight decrease in centralization; however, it remains a very centralized system. The southern 2006 network is 4 times more centralized than the northwestern network. Therefore, in the southern system, the power of individual actors varies rather substantially, and this means that, overall, positional advantages are rather unequally distributed in the network. At the same time, the northwestern cooperation network develops into a really decentralized system in 2006 (15.22% compared to previous 32.17%), which means that the network developed into a system with a much more equitable sharing of resources and influence.

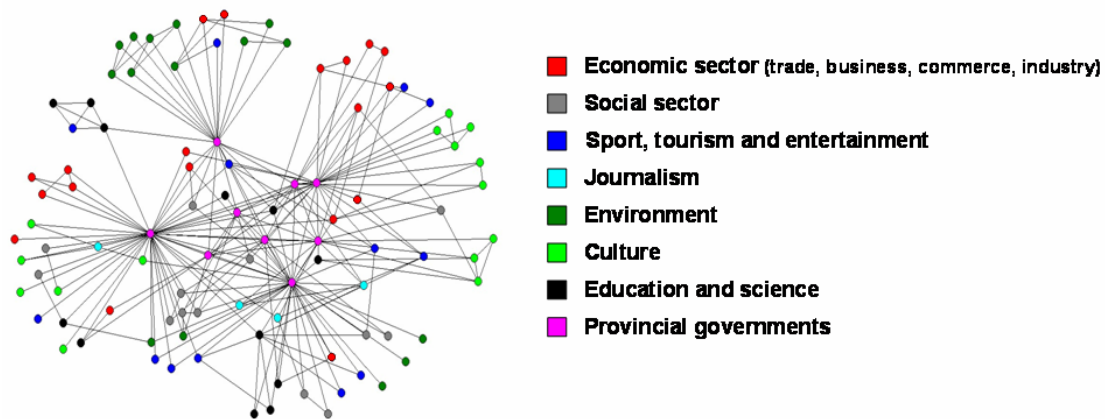
It is important to see around what kind of actors regional cooperation networks are centralized as this information will show the actors that are most influential in cooperation processes in the regions. For this purpose the network actors were divided into groups according to their fields (e.g. economic, education, culture), and the 'actors by sector' networks were then visualized in NETDRAW. Due to the geographical peculiarity of the regional cooperation (northwestern Russia borders northern Europe), in the northwestern region there are important northern Europe –related organizations like the Office of the Nordic Council of Ministers, Finnish Cultural and Academic Institute, and Regional Support Bureau, which were included in the analysis as a separate block as they are devoted to several cooperation aspects – economic, social, civil society, environmental and educational. Besides, compared to the multitude of projects aimed at improving transportation systems between northwestern Russia and northern Europe, there was only one transportation cooperation initiative in the southern region in 1999, and it was primarily concerned with improving sea-line routes for trade and economic cooperation, therefore, organizations participating in that project were not included as a separate entity, but as part of the economic and business sector.

Actors occupying central positions maintain contacts with numerous other network actors; therefore, they are capable of controlling network exchanges (Wasserman and Faust, 1994). Most central actors in governance networks are those who have important decisional and coordinative roles. Such actors are the key to understanding the circulation of ideas and allocation of resources in the network and decisions to act collectively (John and Cole, 1998). From governance perspective, centrality is referred to whether the network is dominated by public, private, or civil society decision makers (John and Cole, 1995 in John and Cole, 1998). A central actor maintains many relations and occupies a favorable structural position in the

network that serves as a source or conduit for larger volumes of information exchange and various resource transactions in the network.⁴³ Scott (2000) defines actors with high centrality scores to be ‘gatekeepers’ as these actors control others, because less central actors depend on more central ones in terms of obtaining access to network resources, or central actors can facilitate network exchanges and connect other actors with each other, depending on the structure of the network. Central actors are located at or near the center in network diagrams. In contrast, peripheral actors have few or no links to other actors and therefore, are located spatially at the margins of a network diagram.

Figure 12 depicts the southern cooperation network (1999) as having provincial administrations holding ‘global’ network central positions, which implies that they are the most influential network actors in collaboration processes. Moreover, cooperation activity seems to occur most intensely within provinces and there is the lack of inter-provincial interorganizational linkages. Rostov, Krasnodar, Stavropol provinces and the republic of Adygeya (the right part of the picture) seem to have some interconnectedness, while the republic of Karachaevo-Cherkessia and Astrakhan province (the left part of the picture) have intra-provincial activity, which is largely isolated from other provinces.

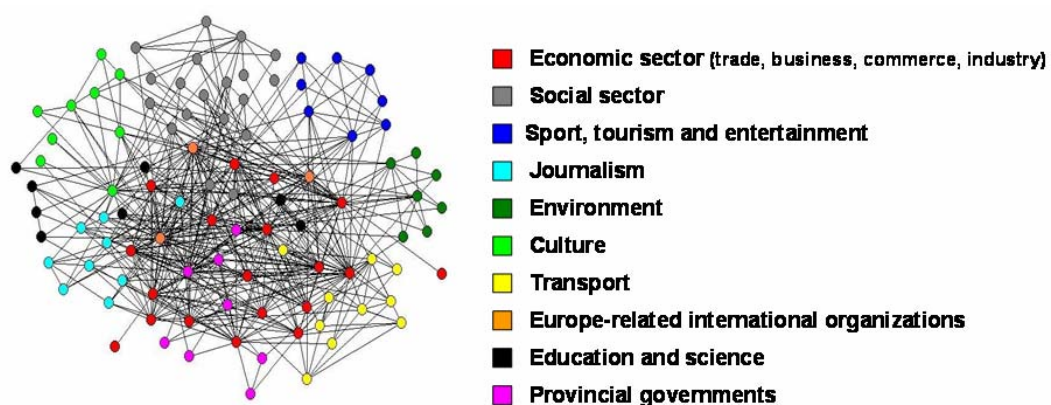
⁴³ For more information, see Centrality and Prestige based on Wasserman, S. and Faust, K. (1994), *Social Network Analysis, Methods and Applications*, Cambridge: Cambridge University Press.



Southern cooperation network 1999/ Actors by sector

Figure 12: Southern cooperation network, 1999

In contrast with the southern network, according to Figure 13, the center of the northwestern network (1999) is shared by organizations coming from various sectors: economic, education and science, social sector, culture, journalism, and public sector; though overall, economic actors prevail in the central positions and perform ‘connector-function’, as many of the interorganizational linkages among different sectors go through them. As far as public sector is concerned, St. Petersburg and Novgorod provincial administrations and the administration of Republic of Karelia are more influential in regional cooperation processes than other administrations. Additionally, important actors in the regional cooperation processes are organizations specifically focused on the integration of the northwestern region with Europe: the Office of the Nordic Council of Ministers, Finnish Cultural and Academic Institute, and Austrian Cooperation Bureau KulturKontakt. Another important feature of the northwestern network is that there are many interorganizational linkages that transcend the geographic boundaries of the northwestern provinces, meaning that organizations from different provinces extensively cooperate with each other.



Northwestern cooperation network 1999/ Actors by sector

Figure 13: Northwestern cooperation network, 1999

As Figure 14 shows, in 2006 southern cooperation network remains highly centralized around provincial governments. The number of inter- provincial inteorganizational linkages increased, meaning that various organizations from different provinces established cooperative contacts, however, actors from the republic of Karachaevo- Cherkessia and Astrakhan province (right part of the picture) remain quite isolated from the rest of cooperative structure. It is important to note that actors from the journalism sector form a cohesive cooperative alliance close to the center of the network, while in 1999 they were largely isolated from each other. The same holds true for the social sector actors. This means that in the highly centralized interorganizational system where control and power positions are occupied by the public sector actors, these actors try to find their own niches of influence and act strategically to benefit from the exchange processes occurring in the system.

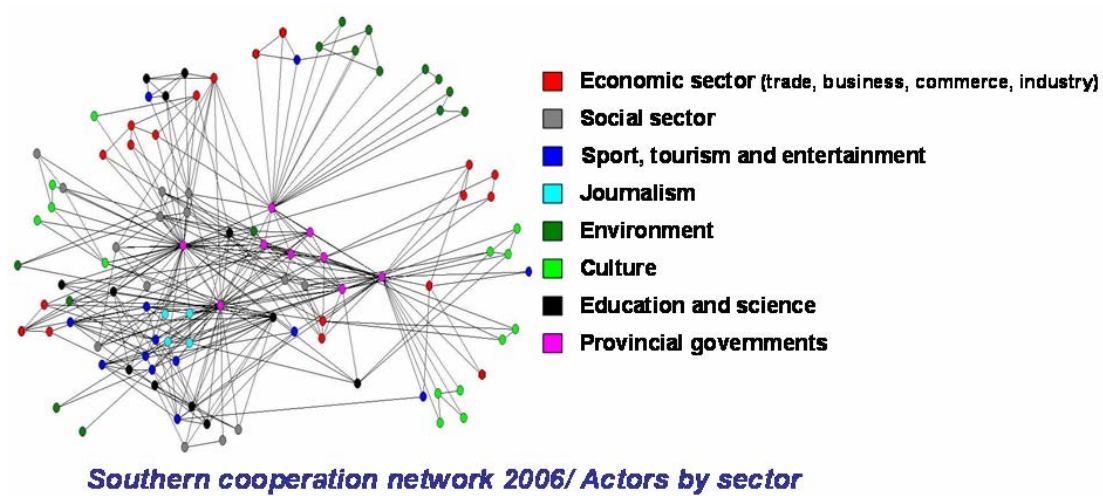
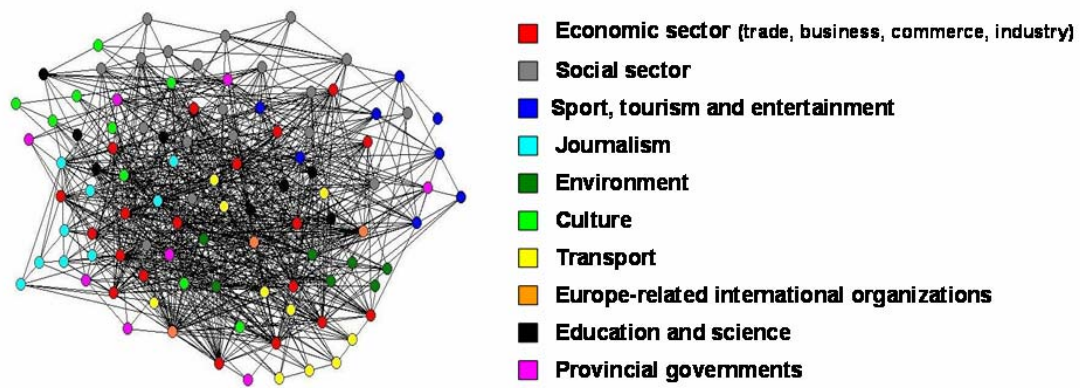


Figure 14: Southern cooperation network, 1999

Figure 15 depicts the northwestern network (2006) as a highly decentralized system with the center of the network shared by the representatives from all the network groups. While in the 1999 network cooperative effort was largely segmented into collaboration areas, in 2006 the composition of cooperative effort became much more diverse. It is also important to note that the governments of Novgorod province and republic of Karelia moved away from the network central positions, while the government of St Petersburg province remained an influential actor in the system.



Northwestern cooperation network 2006/ Actors by sector

Figure 15: Northwestern cooperation network, 2006

Network analysis rigorously assesses centrality of the network actors by providing statistical centrality indexes for each actor. By obtaining centrality scores for each actor, it is possible to exactly define the organizations that hold most central network positions. There are several approaches to measuring centrality in networks including the most widely used measures: degree centrality, closeness centrality, betweenness centrality, and eigenvector centrality.

Degree centrality developed by Linton Freeman can be defined as the number of adjacent links to or from an actor, that is, the number of network ties that emanate from an actor (Freeman, 1979). High centrality of an actor implies that it occupies a central position highly linked, in relative terms, to all other actors inside the network and is involved in many ties. Borgatti (2005) interprets degree centrality as a measure of immediate influence concerning the ability of an actor to impact other actors directly or through one path.

In cooperation networks actors who have more links to other actors occupy advantaged positions, because they control the flow of information and are aware of the whole process of regional cooperation, therefore, they can influence the politics of the regional cooperation.

Additionally, they have alternative ways to satisfy needs as they have access to resources of the network as a whole, and hence are less dependent on other actors.

Degree centrality measure is often criticized because it is only concerned with the immediate links that an actor has, rather than indirect links to all others. For instance, an actor might be linked to many other actors who might be disconnected from the network as a whole. In this case this actor is central only in a local group, but not in the whole network.

Closeness centrality (or as some scholars call it ‘access centrality’) approach takes into consideration the distance of an actor to all others in the network. An actor’s closeness centrality is the sum of distances from all other actors, where the distance from an actor to another is defined as the length (in links) of the shortest path from one to the other (Freeman, 1979; Borgatti, 2005; Borgatti, 1995). In interorganizational networks, an actor that has high closeness centrality score can quickly interact with many other network actors without going through many intermediaries (Wasserman and Faust, 1994). However, in large and complex cooperation networks this measure might be misleading as the measure for an actor who is close to a small and fairly closed group within a larger network, and distant from many of the other network actors can be similar in magnitude with the measure of an actor who is at a moderate distance from all of the network actors. In large networks, according to closeness centrality, the second actor would be more central than the first one, because it is able to reach more of the network with same amount of effort (Hanneman and Riddle, 2005).

Another well-known centrality measure is betweenness or control centrality. Betweenness centrality characterizes a central actor occupying a ‘between’ position in the paths connecting many pairs of other actors in the network (Freeman, 1979). In interorganizational cooperation networks, as an intermediary between many other actors, a ‘between’ actor controls

the flow of information and exchange of ideas and resources; therefore, 'between actors' usually perform the function of third-parties and deal makers in exchanges among others, and are able to benefit from this brokerage.

Bonacich (1972, 2007) proposes to measure centrality by eigenvector: unlike degree, which weights every contact equally, the eigenvector weights links to others according to their centralities. "Eigenvector centrality can also be seen as a weighted sum of not only direct connections but indirect connections of every length" (Bonacich, 2007). Therefore, the eigenvector approach takes into account the entire pattern of communication and interaction in the network.

Regional cooperation networks are large complex systems; therefore, for the accuracy of the analysis, multiple centrality measures were conducted in UCINET. Appendix of this chapter lists 10 most central organizations in each network and reports their centrality indexes and also presents visualized models of the networks rotated according to the centralization parameters where it is clearly seen what kind of actors occupy most central positions. Centrality indexes support previous findings that both in 1999 and 2006 provincial governments occupied most central positions in the southern cooperation network. The only other organization that happened to be among top 10 most central organizations in the 1999 southern cooperation network is Kuban University. In 2006, two other organizations came to occupy central positions- big non-governmental organization 'Ekologika' based in Rostov focused on environmental and social issues and regional education association with offices in Stavropol, Krasnodar and Rostov cities. Therefore, it is possible to say that the center of the 2006 network became slightly more diverse; however, centrality indexes of provincial administrations increased while indexes of many other actors decreased meaning that the whole system became more asymmetrical. Big standard

deviations for centrality measures (both in 1999 and 2006) show that in the southern cooperation networks centralization is unequally distributed in the system as there is a big difference between highly centralized and highly peripheral actors. Highly peripheral actors in the southern regional cooperation networks are highly constrained by the limited access they have to other network actors.

In correspondence with the previous findings, the center of the northwestern network is shared by many organizations coming from various sectors. However, in 1999 network one third of the 10 most central organizations belonged to economic actors. In 2006, the network center became very diverse. Standard deviation figures for centrality indexes show that there was not a very big difference between most central and least central actors in the 1999 northwestern network unlike in the southern cooperation networks, but in 2006 northwestern network the difference became much smaller, which implies that the network became very decentralized and broad. These finding go in line with the European integration theories that stipulate that economic interaction is the driving force of integration and the spillover effect from economic interaction and economic interdependencies will quickly create strong incentives for integration in further sectors. Another important feature of the 2006 northwestern network is that (as centrality indexes show) almost all the central actors from the 1999 network conceded their central positions to other actors. This shows strong mobility and adaptability of the northwestern cooperation system.

Therefore, the hypothesis that the regional cooperation networks in the southern region are more centralized than in the northwestern region proved true. The proposition that with time the southern cooperation network develops higher centralization degree did not prove true and has to be rejected. However, the southern network shows only very slight decrease in

centralization and remains a highly centralized system. As a contrast, the northwestern network becomes a highly decentralized system over time. The hypothesis that the regional cooperation system in the southern region is centralized around a particular group of actors while the center of the northwestern network is diverse proves true as well.

Network-level hypotheses:

Hypotheses 3 / Network cohesion

Network cohesion is associated with the level of interconnectedness and embeddedness of network actors in the networking structures. High network cohesion is important in interorganizational networks, as the degree of network cohesion correlates with the levels of trust and social capital in the system (Putnam, 1993; Hanneman and Riddle, 2005).

There are different approaches to characterizing the extent of interconnectedness and form of ‘embedding’ of actors in networks. Social network analysts usually use the combination of different approaches. The most popular ones are:

Network density

Density is usually interpreted as the extent to which all the actors in the network are connected. It shows the general level of connectedness among network actors and measures the ratio of the number of existing links in the network to the number of possible links, if each network actor were linked to every other actor.⁴⁴ If all actors have links to one another, the network is assumed to be complete and have a density of 1 or 100%. (Scott, 2000).

According to different network theorists, the density of a network gives important information on the closeness of relationships and their importance to the network participants. It

⁴⁴ For more information, see “Analyzing Urban Tourism Stakeholder Relationships: A Network Perspective” paper by Timur Seldjan, available at <http://www.linkbc.ca/torc/downloads/AnalyzingUrbanTourismStakeholderRelationships.pdf?PHPSESSID=61bce1524470c5131c3c7eef3fa3cd08>

has been also argued that the dense network structure allows for fast and efficient diffusion and exchange of resources and information, and also norms, values and ideas. The denser the network is, the more effective is the communication among the network actors, and the more similar is the actors' behavior in the network. In addition, opportunities for effective cooperation increase with the increase in the network density.

Better connections in cooperation structures are important for mobilization. For instance, Zmerli and Newton (2007) argue that in dense networks the chance of being mobilized for political action and the possibility of mobilizing others increases. The scholars also argue that interorganizational connectedness increases the impact on the political system. Hanneman and Riddle (2005) claim that networks with high density respond better to challenges from the environment than those with low density.

Network densities can be measured in UCINET, which gives an index of the degree of interconnectivity in a network. With valued data (our case), density is usually defined as the average strength of linkages across all possible linkages. Table 8 reports network densities for the regional cooperation networks in percentages.

Table 8: Network Density

NETWORK DENSITY (N = 100)^a

	Density
Southern Cooperation Network 1999	7.03 %
Southern Cooperation Network 2006	10.27 %
Northwestern Cooperation Network 1999	13.32 %
Northwestern Cooperation Network 2006	36.67 %

^a The closer the density is to 100%, the denser the network.

Network densities show that in 1999, the northwestern cooperation network was denser than the southern network implying that there were more connections between network actors in the northwestern system than in the southern one. Both systems developed more links between network actors and became denser in 2006 meaning that overall interconnectedness of actors involved in regional cooperation improved over time. However, the difference between the 1999 and 2006 densities of the northwestern network is much bigger than the difference between the densities of the southern network, implying that the northwestern system has a better progress in developing interconnectedness among network actors. In 2006, the northwestern cooperation network became more than three times denser than the southern cooperation network (36.67% compared to 10.27%). This indicates much higher overall level and breadth of cooperative activity in the northwestern network.

Transitivity

Transitivity measures a tendency for a link from A to C to exist if a link from A to B and a link from B to C exist. With un-directed data (our case), there are four possible types of triadic relations (no ties, one tie, two ties, or all three ties). High transitivity is associated with the existence of all the possible connections in triads. Interorganizational networks with high level of transitivity are considered to be more cohesive, stable, balanced, and harmonious as all the three organizations in the triad are connected with each other and therefore are in structurally equal positions in respect to each other, which facilitates the flow of information and equitable sharing of network resources (Hanneman and Riddle, 2005; Atouba, Yannick and Shumate, 2008). Network transitivity was measured in UCINET.

Table 9 reports transitivity for the regional cooperation networks. The results of the transitivity analysis demonstrate that in the 1999 southern cooperation network 14% of triads are

transitive. Transitivity increases to 21% in 2006. However, transitivity in the northwestern network both in 1999 and in 2006 is much higher than in the southern cooperation network (48% in 1999 and 81% in 2006 respectively). In 2006, transitivity of the northwestern network is almost 4 times higher than in the southern network, implying that the northwestern system is much more stable, balanced and harmonious.

Table 9: Network Transitivity

NETWORK TRANSITIVITY (N = 100)

	Transitivity
Southern Cooperation Network 1999	14 %
Southern Cooperation Network 2006	21 %
Northwestern Cooperation Network 1999	48 %
Northwestern Cooperation Network 2006	81 %

Compactness

The concept of compactness is based on the ‘distance’ between actors. More compact, or cohesive networks, have shorter distances between network actors. Most algorithms use one particular definition of the distance between actors in a network to define more complex properties of actors’ positions and the structure of the network as a whole (Hanneman and Riddle, 2005). This quantity is the geodesic distance. The geodesic distance is the number of relations in the shortest possible walk from one actor to another. The geodesic distance is widely used in the network analysis. There may be many connections between two actors in a network and therefore, actors may be able to reach each other through different paths. “If we consider how the relation between two actors may provide each other with opportunity and constraint, it may well be the case that not all of these ties matter” (Hanneman and Riddle, 2005). That is, the geodesic path (or paths, as there can be more than one) is the ‘optimal’ or most ‘efficient’ connection

between two actors. The lengths of the geodesic paths in the regional cooperation networks can be located in UCINET. The algorithm defines the distance between two actors based on the strength of the weakest link between them and finds the number of edges in the strongest path between each pair of nodes.

Table 10 reports compactness (or distance-based cohesion) indexes for the regional cooperation networks.

Table 10: Network compactness

NETWORK COMPACTNESS (DISTANCE-BASED COHESION) INDEXES (N = 100)^a

	Compactness Indexes
Southern Cooperation Network 1999	0.332
Southern Cooperation Network 2006	0.344
Northwestern Cooperation Network 1999	0.546
Northwestern Cooperation Network 2006	0.620

^a range 0 to 1; larger values indicate greater cohesiveness.

Distance-based cohesion indexes indicate that the distance-based cohesiveness increases in both networks. However, the northwestern network is more cohesive than the southern one both in 1999 (0.546 compared to 0.332) and in 2006 (0.620 compared to 0.344) implying that the most ‘efficient’ connection between two actors is shorter in the northwestern network, therefore, the actors in the network are able to reach each other through shorter distances. Distance-based cohesion is important in regional cooperation networks, as it shows how accessible the actors are in the regions and how informed they are of each other and the whole politics, dynamics, and outcomes of cooperation processes occurring in the regions. Compactness of the network indicates how quickly information flows from one end of the network to the other, which depends on the network path lengths. When the length of the shortest

path between a pair of actors is high, it will take a long time for information to flow from one actor to the other. In networks with high average path lengths the spread of information to all the network actors will be slower. Therefore, according to the results of the compactness analysis, the northwestern cooperation network is much more efficient in terms of information exchange.

All the measures of network cohesion indicate that the degree of cohesiveness of both networks improves with time, however, in the northwestern network it improves with a wider range and the northwestern network is more cohesive than the southern one both in the 1999 and in 2006. Therefore, the northwestern system generates higher levels of trust and social capital.

Network-level hypotheses:

Hypotheses 4 and 5 / Power and core- periphery relations

Network analysis has contributed a number of important insights about power in interorganizational networks. “Perhaps most importantly, the network approach emphasizes that power is inherently relational” (Hanneman and Riddle, 2005). According to network analysts, power is a consequence of patterns of relations and interactions among actors; therefore, the amount of power in social structures can vary. In networks with low density of linkages there is the potential for greater power, while in high density networks not much power can be exerted. Power is both a systemic (macro) and relational (micro) property. According to Hanneman and Riddle (2005), the amount of power in a system and its distribution across actors are related, but are not the same thing. The scholars argue that two systems can have the same amount of power, but it can be equally distributed in one and unequally distributed in the other.

Power in networks may be interpreted either as a micro property referring to relations between two actors or as the property of a group of actors or of the whole network. Structural position of an actor or group of actors in a network on the one hand imposes constraints, and on the other hand, offers certain opportunities. Actors that have fewer constraints and more

opportunities than others, obtain better structural positions. Having a better position means that “an actor may extract better bargains in exchanges, have greater influence, and that the actor will be a focus for deference and attention from those in less favored positions” (Hanneman and Riddle, 2005).

In the network analysis, power is connected to the position of centrality occupied by network actors. Each of the three approaches described and used above (degree, closeness, betweenness) describe the positions of organizations in terms of how close they are to the ‘center’ of the action in a network.

Bonacich (1972, 2007) questioned the idea that the more central actors are more likely to be more powerful actors. He argued that being connected to connected others makes an actor central, but not powerful. According to the scholar, power in the network is being linked to others that are not well connected, because these other actors are then dependent on the one through which they are connected, while well connected actors are not that dependent in network systems. Bonacich proposed that power and centrality is a function of the links of actors in a network. The more links the actors in a network obtain, the more central and powerful they are. Also, the fewer the links the actors in a network have, the more powerful certain actors are.

Hanneman and Riddle (2005) extensively discuss Bonacich’s technical measure of power. Bonacich proposed to measure power by giving each actor an estimated centrality equal to their own degree, plus a weighted function of the degrees of the actors to whom they are connected. Then, repeat the algorithm, using the first estimates (i.e. give each actor an estimated centrality equal to their own first score plus the first scores of those to whom they are linked). As this procedure is repeated numerous times, the relative sizes of all actors’ scores will come to be the same. The scores are then re-expressed by scaling by constants.

The degree of power an actor has in the network can be measured in UCINET, which gives statistical indexes for the level of power obtained by network actors. UCINET Bonachic power procedure is used to examine the power scores of the regional cooperation network actors. Appendix of this chapter lists power scores of the 10 most powerful actors.

The results show that in the southern cooperation networks, provincial governments are most powerful actors, while in the northwestern networks power is dispersed among network actors and becomes more equally distributed over time. Big difference in the southern network between most powerful and least powerful actors (2 for the least powerful actor and 64 for the most powerful actor in 1999 and 71 for the most powerful actor and 2 for the least powerful actor in 2006) indicates highly asymmetrical distribution of power in the system, while in the northwestern network there is a smaller variability in power scores indicating small difference between the most powerful and the least powerful actor, which even decreases with time (27 for the most powerful actor and 2 for the least powerful actor in 1999, and 14 for the most powerful actor and 2 for the least powerful actor in 2006). Therefore, there are great inequalities in actors' power and power becomes more asymmetrical over time in the southern regional cooperation network, while power in the northwestern network becomes more evenly distributed over time.

It is also important to see how much power provincial governments have collectively over the whole system meaning how much control they have over the regional cooperation processes. For this purpose they were grouped together, their power scores were added and then divided by the sum of the power scores of the rest of the network actors.

Collective power scores (Table 11) show that provincial administrations have much control over cooperation processes occurring in the southern region, while in the northwestern region public sector actors have much less control.

Table 11: Collective power of administrations

Networks	Collective power
Southern cooperation network 1999	49 %
Southern cooperation network 2006	43 %
Northwestern cooperation network 1999	11 %
Northwestern cooperation network 2006	5 %

Slight decrease in administrations' collective power in the southern cooperation network in 2006 can be explained by the structural changes in the network: a few other actors moved to more powerful positions and the system developed a bigger number of interorganizational linkages making network actors slightly less dependent on the most powerful actors. However, collective power of provincial administrations remains very high in the southern system.

An extension of the concept of centralization and power is a core/periphery dichotomy. In core/periphery networks weakly connected actors revolve around a set of central actors that are well-connected with each other, and also with the periphery. Peripheral actors, in contrast, are connected to the core, but not to each other.

Core-periphery relations have been widely studied by different network analysts (Laumann and Pappi, 1976; Alba and Moore, 1978; Mintz and Schwartz, 1981; Boyd, Fitzgerald and Beck, 2006). "Core/periphery networks contrast with 'clumpy' networks, which consist of two or more subgroups that are well-connected within group but weakly connected across groups, like a collection of islands" (Borgatti, 2005).⁴⁵ In the networks with the same density,

⁴⁵ Borgatti's article "Facilitating Knowledge Flows" is available at http://www.socialnetworkanalysis.com/knowledge_sharing.htm

core/periphery structure will allow for much faster dissemination of information and spread of ideas, knowledge and resources than the clumpy structure, as in the core/periphery networks average path length is considerably shorter. However, because core/periphery structures have a dominant core, this core has significant control over the whole system and over the network communication and exchanges. Thus it is important to see what actors constitute the core and whether they are beneficial for the network exchange processes. In core/periphery networks it is desirable that the core is constituted by different types of actors to avoid the grip of power by only one class of actors.

Another qualitatively distinct type of networks is multiscale networks. Unlike ‘clumpy’ networks that consist of weakly connected groups of actors, and core/periphery networks, where connectivity is dominated by a single scale, “these networks display connectivity at all scales simultaneously” (Dodds, Watts and Sabel, 2003). However, multiscale networks do not have uniform density of links at all scales as link density decreases gradually with depth in a way that the top level, or the core of the network, displays the highest density. Multiscale networks are similar to core-periphery networks; the critical difference, however, is that in multiscale networks there is no clear distinction between a well connected core and a weakly connected periphery as connectivity decreases slowly. Dodds, Watts and Sabel (2003) found evidence that in organizational environment by exhibiting connectivity across all network stages, multiscale networks yield better robustness properties. The scholars show that multiscale networks exhibit both connectivity and congestion robustness (unlike other types of networks) and perform much better in terms of information exchange.

In cooperation networks the desirable structure is the one without distinct core-periphery separation and without ‘clumpy’ networks; it is argued that the best structure for successful

collaboration is a decentralized and dense or ‘integrated’ network (multiscale network) without distinct subgroups, and if there is a distinction between a core and periphery, it is desirable that the core is big and diverse (Rank C., Rank O. and Walda, 2006).

Network core-periphery relations can be analyzed in UCINET. The program finds a core/periphery structure in two possible ways: either it computes the degree of ‘coreness’ for each actor (continuous model), or it bipartitions all the actors into the core and periphery subgroups (discrete model) (Boyd, Fitzgerald and Beck, 2006). As far as the discrete analysis is concerned, the output in UCINET includes an overall measure of ‘fitness’ of the model that shows how well the network approximates an ideal core/periphery structure. A high fitness index indicates that the network is a good approximation of the core/periphery model, while a lower fitness index suggests that the model should be rejected.

For the purpose of this study, discrete model is chosen for the estimate of the core-periphery relations in the regional cooperation networks, as it will show whether there is a clear distinction between a core and a periphery in the networks and provide within and inter group densities demonstrating the level of interconnectedness between and within the core and the periphery.

The results of the application of the core-periphery model to the regional cooperation networks are displayed in Table 12. The table shows the density measures within the core (1-1), within the periphery (2-2), and between the core and the periphery (1-2 or 2-1) along with the corresponding model fit and the number of organizations constituting the core.

Table 12: Core-periphery model

C/P /south/ 1999		C/P /south/ 2006		C/P northwest/1999		C/P /northwest/2006					
1	2	1	2	1	2	1	2				
1	0.765	0.270	1	0.636	0.196	1	0.566	0.110	1	0.768	0.352
2	0.270	0.021	2	0.196	0.037	2	0.110	0.067	2	0.352	0.236
13 actors in the core			18 actors in the core			31 actors in the core			50 actors in the core		
Final fitness: r =0.566			Final fitness: r=0.541			Final fitness: r=0.426			Final fitness: r=0.215		

The results indicate that the entire collaboration structure of the southern regional network both in 1999 and 2006 may be divided into a core and a periphery as in the network weakly connected actors revolve around a set of central nodes that are well-connected with each other, and also with the periphery. The final model fit of $r = 0.566$ (1999) and $r=0.541$ (2006) indicate that the southern cooperation network approximates an ideal core-periphery structure well. The partial density of the relations among the members of the core of the southern 1999 network amounts to 77%. Compared to the overall density of the entire network of 7.03 %, the level of information and resource exchange within the core has to be judged as significantly intense.

Furthermore, organizations belonging to the periphery are very weakly connected with each other; the respective partial density in this segment is only 2%. Finally, the partial density of the intersections between the core and the periphery amounts to 27%, which indicates that the peripheral actors are well connected to the core. As far as the 2006 southern network is concerned, it can also be divided into a core and a periphery, however with a slightly worse final model fit ($r=0.541$). The model fit is still high and indicates that the 2006 southern cooperation network approximates an ideal core-periphery structure fairly well. The partial density of relations among the members of the core of the 2006 network amounts to 64 %, which indicates

high level of interconnectedness of the core actors. Peripheral actors become slightly more connected (increase in density from 2.1% to 3.7 %), and partial density of the intersections between the core and the periphery amounts to 20%, which shows that the periphery is fairly well connected to the core. It is also important to note that the core in 1999 network was constituted by 13 actors, 9 of which were provincial administrations. In 2006, the core became slightly more diverse (increase in 5 actors) consisting of 18 organizations, 9 of which were provincial administrations. Still, compared to the total size of the network (100 actors), the core remains very distinct and small in the southern cooperation network.

As far as the northwestern cooperation network is concerned, the results of the core/periphery analysis indicate that the structure of the 1999 network may be more or less described in terms of a core/periphery dichotomy: the final model fit of $r = 0.426$ is lower than that of the model applied to the southern network, however it is considered fairly good for accepting the core/periphery model. The partial density of relations among the members of the core of the 1999 northwestern network amounts to 57%, which indicates a considerably high level of information and resource exchange within the core. Organizations belonging to the periphery are more weakly connected with each other than the core actors as the respective partial density in this segment is 6.7%, however, it is still larger than the peripheral density of the southern network both in 1999 and 2006, implying that the actors that are not in the core of cooperative activity in the northwestern region are still fairly connected.

Finally, the partial density of the intersections between the core and the periphery amounts to 11%, which indicates that the peripheral actors are fairly well connected to the core. In the southern network the density in this segment both in 1999 and 2006 is significantly higher, which indicates that the core actors of the southern network have more power and influence over

the network peripheral actors than the core actors in the northwestern network. Furthermore, the core of the northwestern 1999 network is bigger and more diverse than the core of the both 1999 and 2006 southern network (one third of all network actors are in the core), indicating that in the northwestern network more actors have access to decision-making and are able to influence the flow of cooperative effort.

The final model fit of the 2006 northwestern network of $r=0.215$ indicates that the network does not approximate an ideal core-periphery structure. Therefore, the results of the analysis have to be judged as insignificant. However, the results indicate that the 2006 network developed into a multiscale network, where there is no sharp distinction between the core and the periphery as the actors in all the segments (core, periphery, and core-periphery) are well – connected and connectivity of network actors decreases slowly. Additionally, the results of the analysis indicate that the core (if one accepts the core-periphery model) of the 2006 network consists of half of all network actors and the composition of the core is very balanced as more or less equal number of actors from each network segment are in the core.

The findings of the core-periphery analysis have important implications for the regional integration processes. The results of the analysis show that the integration processes in the northwestern region represent a cohesive, stable and balanced structure with equal opportunities for the regional actors and equitable sharing of power, influence and control among them. The northwestern cooperation network approximates a good network governance model based on self-organization, adaptability, mobility, and collective action. As a contrast, in the southern region, public sector actors dominate regional cooperation and control integration processes occurring in the regions. This may occur for a variety of reasons and they will be explored in the fifth chapter of this dissertation.

*Network-level hypotheses:
Hypothesis 6 / Network Structure*

Embedding of actors in dyads, triads, clusters, and groups are different ways in which the structure of social networks (individual or interorganizational) may be differentiated. However, this differentiation may be horizontal, or it may have vertical nature involving unequal rankings or, in other words, hierarchy. Network analysis scholars speak about different forms of vertical differentiation in networks. One form of vertical differentiation is referred to a structure where individuals or organizations are ranked into superiors and subordinates by the nature of their actual position, like hierarchy in the military or inter-firm network of the main firm and its branches. Another form of vertical differentiation in networks discussed by network analysts is structural hierarchy, where the actors are not subordinate or superior to other actors in terms of their actual position, but are structurally ranked being placed at different structural levels of the network indicating that they have different access to decision-making and different amount of power and influence in the network. For instance, Collins (2009) argues that when an organizational field is characterized by power inequality, interorganizational networks are subordinate to central dominant actors; however in interorganizational systems network characteristics like reciprocity and interdependence can temper vertical differentiation over time.

Network analysis scholars developed several ways to assess the degree of vertical differentiation in networks. With directed data, the most popular method is Krackhardt's (1994) method that includes a combination of several measures of network hierarchy. With undirected reciprocal data (our case), network analysts use approaches based on hierarchical clustering.

“An inherent duality in networks is the tension between connectivity and clustering” (Levine and Kurzban, 2005). On the one hand, networks enable diffusion of information,

practice and knowledge and facilitate exchange of resources of various kinds. On the other hand, networks tend to be composed of internally more or less homogenous clusters that are loosely connected and situated at different network levels- some closer to the network center, some at a greater distance. The closer the clusters are to each other, the more efficient network exchanges are. Clustering with big distances between clusters is considered problematic in interorganizational networks, because it hinders network flows, increases isolation, and can lead to the abuse of power by dominant network actors (Levine and Kurzban, 2005). For instance, Prell (2003) analyzes community network in the city of Troy, New York, USA, and finds out that network exchanges are not very efficient as public sector actors are the most popular and powerful actors in the network: “ties are concentrated around these actors, indicating that the network is structured vertically rather than horizontally”.

There are several tools in network analysis available for the analysis of clustering in networks with undirected data. A combination of Newman Girvan’s method and Burts’ (1992) hierarchy (one of the measures of structural holes) will be used for the analysis of hierarchical clustering of the regional cooperation networks. Newman Girvan’s method separates the network into clusters using the following technique: the link with the highest edge betweenness is removed and the procedure is repeated until the network breaks apart in two components, then this process starts all over again until the specified number of components has been reached.⁴⁶ The results also give the model fit estimate indicating the most suitable number of partitions for the network. Figure 16 and Figure 17 display the results of Newman Girvan’s analysis.

⁴⁶ For more information, see Interpretation of UCINET 6 Output.

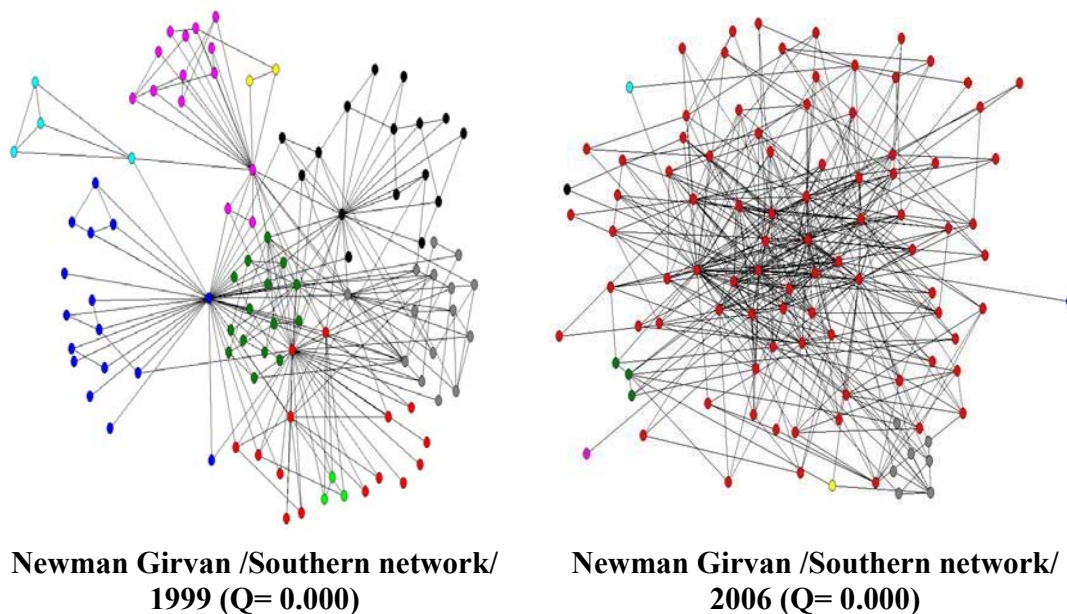


Figure 16: Newman Girvan analysis

The nodes split into Newman Girvan's partitions with a goodness of fit factor of $Q=0.000$ and the colors in the figures correspond to the Newman Girvan's clusters. Figure 16 depicts 1999 southern cooperation network as having 9 clusters which are situated at different distances from the core of the network and some of them do not have a direct connection with the core of the network. The southern network is largely segmented.

The northwestern cooperation network consists of 8 clusters. Only two of them constitute a particular group, however, both groups have direct connections with the core of the network. The majority of actors in the northwestern network belong to the main partition and those actors that are not placed at the very center of the network have direct links to the core of the network implying that the majority of the network nodes are placed at one level, therefore, the structure of the network is considerably horizontal.

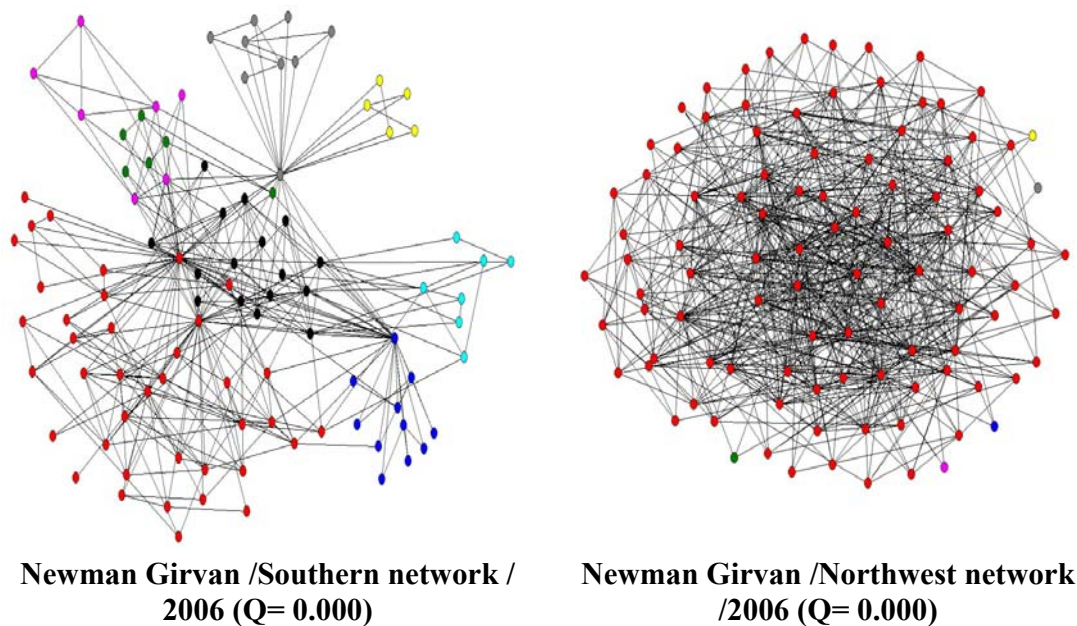
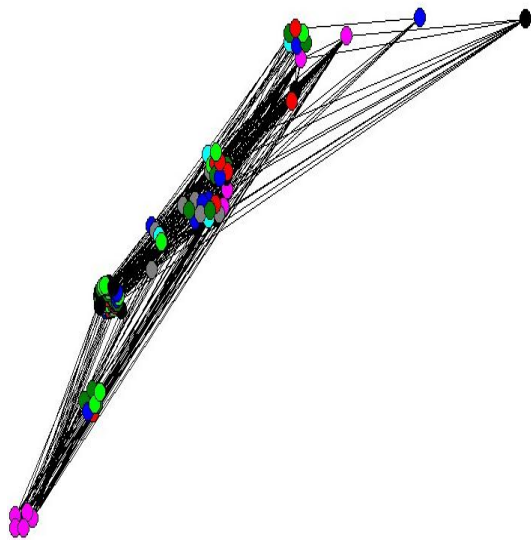


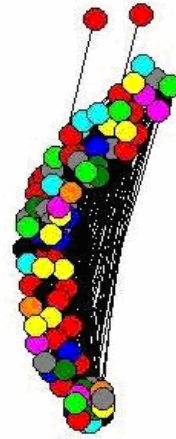
Figure 17: Newman Girvan Analysis

According to Figure 17, the 2006 southern network remains largely segmented (8 Newman Girvan's partitions) with distinct clusters placed at different distances, implying that the structure remains vertically differentiated. At the same time, the 2006 northwestern network approximates an ideal horizontal system very well, as the absolute majority of the network actors belong to the main partition and those that do not belong to the main partition have more than one connection to the main group, therefore are placed at a close distance from the main partition.

Figures 18 and 19 represent regional cooperation networks rotated vertically according to Burt's hierarchy measures for better visualization of network levels. The color of the nodes reflects their belonging to the actual sector (economic, social, culture, public sector, etc. - see Figures 12, 13, 14, and 15). Clusters that are at the top of Burt's hierarchy are depicted at the bottom of the figures.

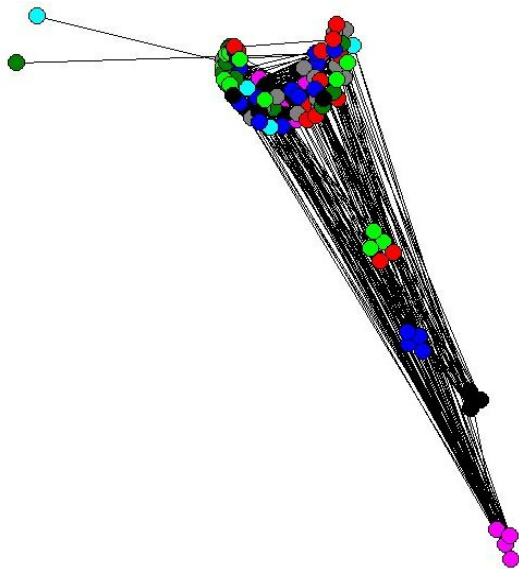


Hierarchy/ Southern network/ 1999



Hierarchy/ Northwestern network/ 1999

Figure 18: Network hierarchy analysis



Hierarchy/ Southern network/ 2006



Hierarchy/ Northwestern network/ 2006

Figure 19: Network hierarchy analysis

The figures indicate that in the southern networks there is a relatively big distance between network clusters, which hinders network exchanges. Big distances between clusters indicate vertical differentiation of the southern networks, while smooth continuous placement of nodes in the northwestern networks reflects their horizontal differentiation. Moreover, clusters that are at the top of Burt's hierarchy are depicted at the bottom of the figures, and it is clearly seen that in the southern networks such clusters are composed of public sector actors.

In the northwestern networks distances between the clusters are not significant (except for the two actors in the 1999 northwestern network); therefore, the structure of the network proves horizontal. Another important feature of the northwestern networks is that the network clusters are diverse as they are composed of actors coming from various sectors, therefore the decisions are made in diverse collaborative environments. It is possible to conclude that the northwestern governance network involves stable horizontal interactions between groups of actors that represent a plurality of organizations.

Clusters in the southern networks are composed of predominantly same-sector actors (especially in 2006 network), which does not contribute to openness and dynamism of the southern system. Therefore, the southern networks are far from the Putnam's (1993, 2001) ideal of a horizontally structured network with equitable sharing of resources and information, where actors are inter-connected and tied to one another.

Network-level hypotheses:

Hypothesis 7/ Strength of Cooperative effort:

Based on the models used in information theory and electrical engineering, I developed a method to evaluate the strength of cooperative effort in the regional cooperation networks. For characterizing the strength of cooperative effort, I use the normalized entropy of the probability

mass function induced by the distribution of cooperation initiatives among organizations in the network, which is defined for a network as follows:

$$\tau = \frac{1}{\log \frac{2}{S(S-1)}} \sum_{i=1}^S \sum_{j=1}^{i-1} n_{i,j} \log n_{i,j} ,$$

Where $n_{i,j}$ is the normalized number of cooperation initiatives between organizations i and j :

$$n_{i,j} = \frac{N_{i,j}}{\sum_{k=1}^S \sum_{l=1}^{k-1} N_{k,l}}$$

$N_{i,j}$ is the number of cooperation initiatives between organization i and organization j , S is the size of the network (total number of nodes in the network), τ is a normalized measure of the strength of cooperative efforts ranging from 0 to 1. τ is 0 when there is only one link in the whole network (assuming network always has at least 1 link). τ is 1 when there are links of equal strength established between every pair of organizations in the network, implying that network forms a complete graph, or in other words, is fully connected. It is important to note that the distribution of link strengths plays extremely important role in determining the value of τ . In the extreme situation when all the pairs in the network are connected by weak ties and there is one very strong tie, τ will still be very close to zero indicating low effectiveness of the cooperative efforts. In other words, uniformity of the distribution of link strengths in the system determines the strength of cooperative effort of the system.

Table 13 reports the scores for the strength of cooperative activity in the regional cooperation networks.

Table 13: Strength of cooperative activity

Strength of cooperation τ	Southern99	Southern06	Northwestern99	Northwestern06
	0.25	0.34	0.50	0.69

According to the results of the analysis, the strength of cooperative activity increases in both networks. However, in the northwestern network, the strength of cooperative activity is significantly higher and the difference between the 1999 value (0.50) and the 2006 value (0.69) is bigger than the difference between the southern network scores (0.25 in 1999 and 0.34 in 2006). This implies that the strength of cooperative effort increases faster in the northwestern network and therefore, the northwestern system has better cooperative dynamics.

To illustrate the development and evolution of cooperative processes in the system, I model Smooth Cooperative Effort Strength Field in MATLAB program. Smoothing is performed using Gaussian kernel to facilitate visual attractiveness of the data. The values of pixels in the Field are described by the following formula:

$$I(i, j) = \frac{1}{C} \sum_{k=1}^S \sum_{l=1}^S \exp \left[-\frac{(k-i)^2 + (l-j)^2}{2\sigma^2} \right] N_{k,l}$$

Where $N(k, l)$ is the number of cooperation initiatives between organization k and organization l , $I(i, j)$ is the cooperative efforts strength between organization i and organization j , σ is the smoothing parameter and C is the normalization constant:

$$C = \frac{1}{\sum_{k=1}^S \sum_{l=1}^S \exp \left[-\frac{(k-i)^2 + (l-j)^2}{2\sigma^2} \right]}$$

S is the size of the network (total number of nodes in the network).

Figures 20, 21, 22, and 23 depict visualized representations of Smooth Cooperative Effort Strength Field of the regional cooperation networks modeled in MATLAB program.

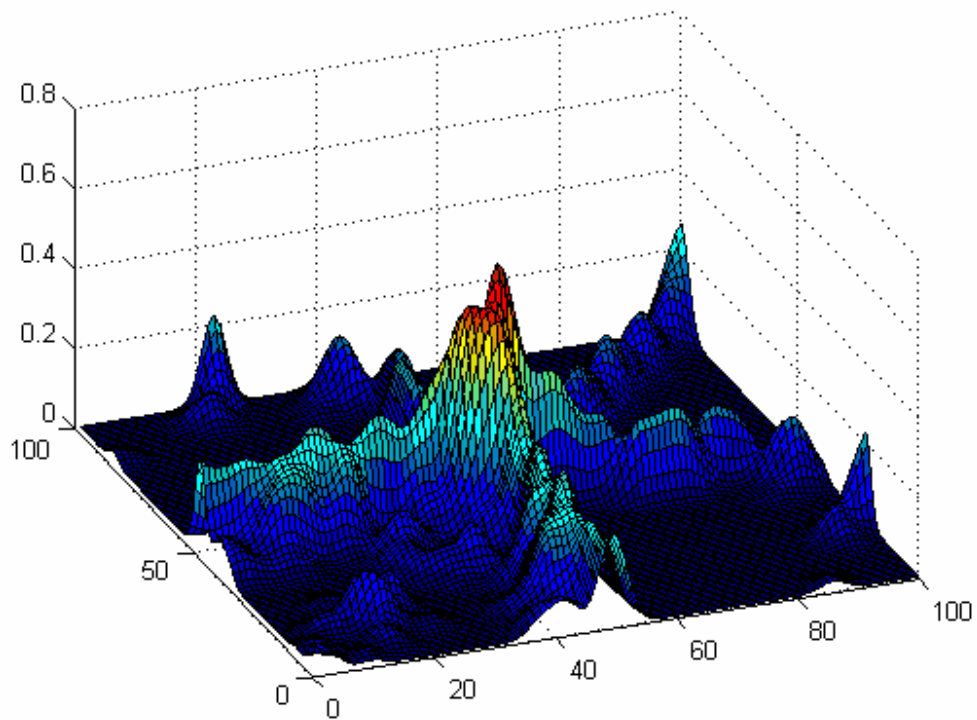


Figure 20: Southern Network 1999

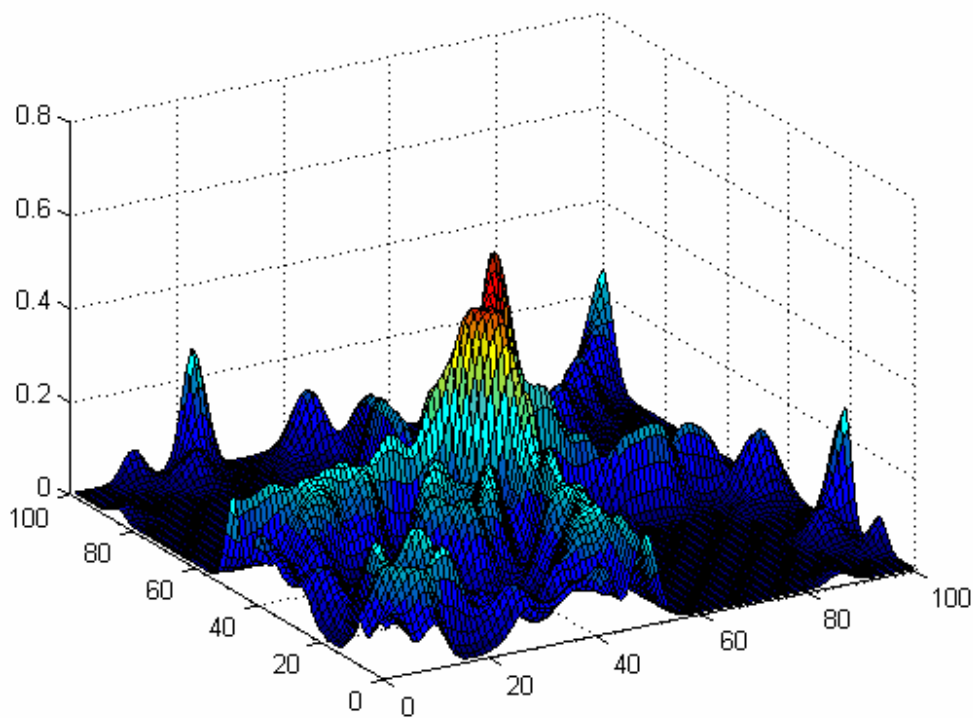


Figure 21: Southern Network 2006

Figure 20 shows that many parts of the field do not exhibit cooperative activity or show very little action, implying that in the 1999 regional cooperation network, cooperative activity in many pairs of actors did not exist or existed at a very low level. Network exchange processes occur predominantly in the center of the system and the strength of cooperative effort seems to be the highest at the center of the network. In the 2006 southern network (Figure 21), the distribution of link strengths becomes a little bit broader, implying that the strength of cooperative activity between actors becomes slightly more even across the network and more actors engage in cooperative processes with other network actors. However, the strength of cooperative effort among many actors is still very low and the highest level of the strength of cooperative activity is still at the center of the network, where exchange processes occur most intensely.

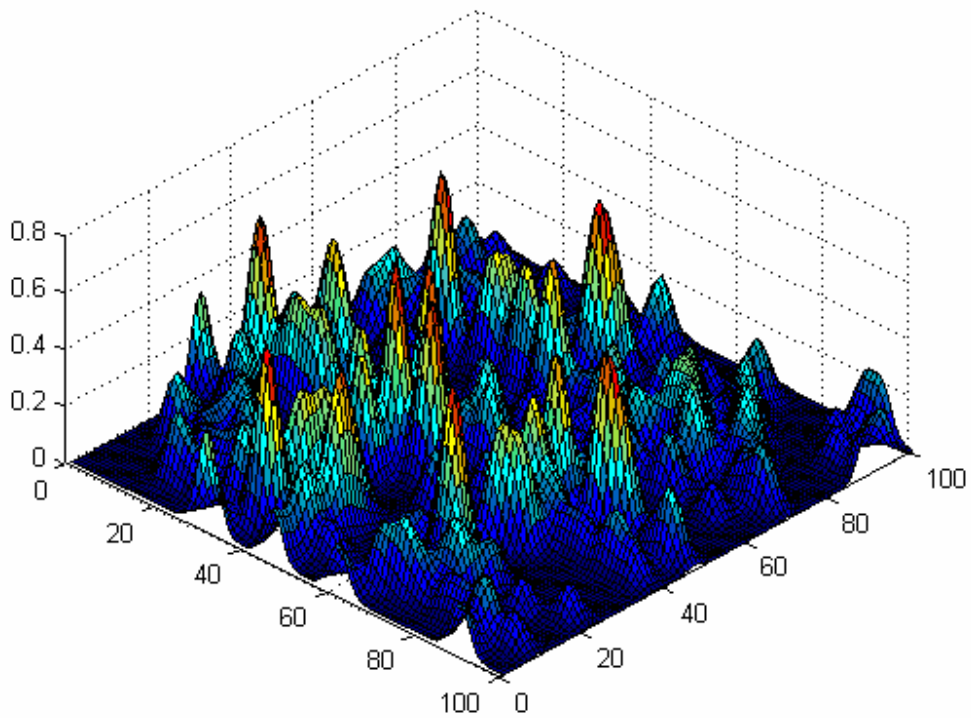


Figure 22: Northwestern Network 1999

Figure 22 demonstrates that unlike in the southern networks, practically all the parts of the Smooth Cooperative Effort Strength Field of the northwestern network exhibit cooperative activity, indicating that cooperative effort exists in bigger number of pairs of actors. Moreover, the distribution of link strengths is much broader and more uniform in comparison with the southern network, which implies that the strength of cooperative activity between actors is much more even across the network. The peaks of the strength of cooperative effort are placed all around the field implying that the highest level of the strength of cooperative activity is not concentrated in just a few pairs. In addition, the peaks of the strength of cooperative effort are higher than in the southern networks, indicating that the overall strength of cooperative effort in the system is higher.

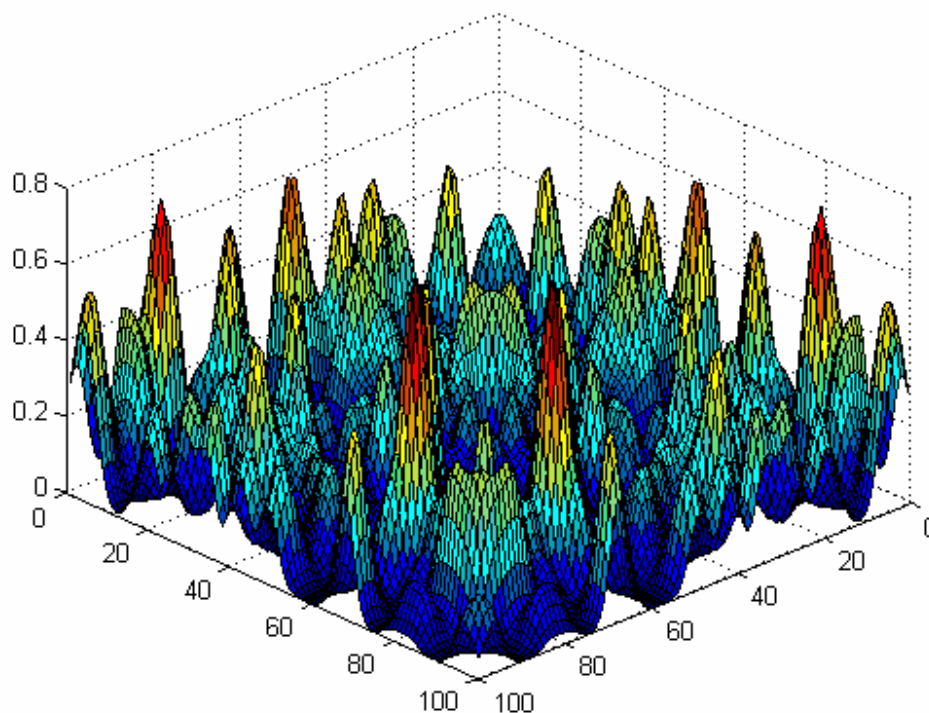


Figure 23: Northwestern Network 2006

Figure 23 demonstrates that the overall strength of cooperative effort increased in the 2006 northwestern network as the peaks of the strength of cooperative effort became higher, and the distribution of link strengths became highly uniform implying that the strength of cooperative effort became more even across the system.

Therefore, it is possible to conclude that the strength of cooperative effort increases in both networks over time; however, in the northwestern network it increases faster and it is much more evenly distributed across the system. This indicates that more actors in the northwestern network are engaged in cooperative effort with many other actors and therefore, have access to information about processes occurring within different policy sectors and capability to influence regional events. Higher strength of cooperative effort indicates better awareness of regional processes, higher openness of the whole system, and better participation, mobilization, and

adaptation capabilities of the northwestern actors. Additionally, as discussed in the theoretical part of this section, decentralization and participation strengthen governance and build social capital in society. Therefore, it is possible to say that due to the structural peculiarities of the networks, the northwestern network generates social capital more intensely and has a stronger effect on democratic governance.

Group-level hypotheses:

Hypotheses 1 and 2 / Cohesion within and among groups and intersectoral linkages

Scholars argue that cooperation between different actors (public, private, civil society, mass media, etc) is crucial in modern society as it helps to solve intractable development problems and builds social capital, which is critical to stability, democracy and economic development (Brown and Ashman, 1996). Joas, Kern, and Sandberg (2007) explored transregional cooperation among various actors in the Baltic Sea region and found out that participatory decision-making and mutual influence were essential for solving important regional problems. According to Narayan (1999), interorganizational collaboration networks that contain high number of intersectoral cross-cutting ties have better governance capabilities and higher adaptivity to evolving complex societal and economic problems.

EU-Russia regional cooperation networks aim at solving complex environmental, economic, and social transregional problems in the Northern Dimension and the Black Sea Area and problems existing in the Russian northwestern and southern regions. It is important to see whether they are structurally equipped to tackling such problems. A high level of cross-cutting intersectoral ties would be an indicator of networks' flexibility, effectiveness, and efficiency in turbulent regional environments. According to Sorensen and Torfing (2003, p. 614), if actors from different sectors are equally involved in decision-making processes, they will tend to

develop a sense of joint responsibility and ownership for the decisions, which will oblige them to support, rather than hamper, their implementation.

Intersectoral density analysis was applied to the regional cooperation networks. Network actors were separated into segments according to the sectors (economic, public, social, education, etc.) and then the densities of connections within groups and across groups were estimated in the UCINET program. Figures 24 and 25 display within-sectoral and intersectoral densities.

1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8		
1	0.05	0.01	0.00	0.07	0.00	0.00	0.01	0.01	1	0.08	0.03	0.12	0.05	0.01	0.07	0.01	0.04
2	0.01	0.05	0.01	0.09	0.00	0.00	0.02	0.01	2	0.03	0.17	0.09	0.14	0.00	0.03	0.01	0.02
3	0.00	0.01	0.08	0.18	0.00	0.00	0.01	0.04	3	0.12	0.09	0.12	0.12	0.20	0.04	0.11	0.04
4	0.07	0.09	0.18	0.51	0.04	0.13	0.06	0.08	4	0.05	0.14	0.12	0.39	0.06	0.05	0.11	0.00
5	0.00	0.00	0.00	0.04	0.14	0.00	0.00	0.00	5	0.01	0.00	0.20	0.06	0.19	0.00	0.01	0.00
6	0.00	0.00	0.00	0.13	0.00	0.16	0.00	0.03	6	0.07	0.03	0.04	0.05	0.00	0.23	0.00	0.01
7	0.01	0.02	0.01	0.06	0.00	0.00	0.12	0.00	7	0.01	0.01	0.11	0.11	0.01	0.00	0.21	0.04
8	0.01	0.01	0.04	0.08	0.00	0.03	0.00	0.13	8	0.04	0.02	0.04	0.00	0.00	0.01	0.04	0.14

Figure 24: Southern network 1999 (to the left) and 2006 (to the right)

1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10		
1	0.27	0.02	0.01	0.00	0.03	0.02	0.00	0.00	0.04	0.14	1	0.29	0.20	0.04	0.05	0.07	0.11	0.10	0.02	0.06	0.02
2	0.02	0.29	0.00	0.00	0.05	0.00	0.00	0.00	0.05	0.12	2	0.20	0.35	0.16	0.13	0.11	0.38	0.32	0.20	0.16	0.13
3	0.01	0.00	0.32	0.00	0.04	0.00	0.00	0.00	0.02	0.07	3	0.04	0.16	0.50	0.07	0.07	0.17	0.09	0.04	0.02	0.08
4	0.00	0.00	0.00	0.12	0.11	0.00	0.02	0.00	0.00	0.14	4	0.05	0.13	0.07	0.32	0.03	0.14	0.06	0.03	0.04	0.08
5	0.03	0.05	0.04	0.11	0.04	0.12	0.07	0.03	0.15	0.14	5	0.07	0.11	0.07	0.03	0.40	0.09	0.06	0.06	0.12	0.06
6	0.02	0.00	0.00	0.00	0.12	0.32	0.00	0.00	0.00	0.13	6	0.11	0.38	0.17	0.14	0.09	0.69	0.37	0.13	0.11	0.18
7	0.00	0.00	0.00	0.02	0.07	0.00	0.42	0.00	0.03	0.15	7	0.10	0.32	0.09	0.06	0.06	0.37	0.60	0.10	0.09	0.16
8	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.36	0.01	0.14	8	0.02	0.20	0.04	0.03	0.06	0.13	0.10	0.36	0.06	0.08
9	0.04	0.05	0.02	0.00	0.15	0.00	0.03	0.01	0.29	0.20	9	0.06	0.16	0.02	0.04	0.12	0.11	0.09	0.06	0.28	0.09
10	0.14	0.12	0.07	0.14	0.14	0.13	0.15	0.14	0.20	0.61	10	0.02	0.13	0.08	0.08	0.06	0.18	0.16	0.08	0.09	0.32

Figure 25: Northwestern network 1999 (to the left) and 2006 (to the right)

As Figure 24 shows, in the 1999 southern network densities within and between sectors are quite low and in many cases non-existent indicating the absence of connections between many actors. However, public sector actors (4) have ties to all the other sectors and dominate the system. This implies that the system lacks intersectoral linkages and is imbalanced and asymmetrical. According to Figure 24, in the 2006 southern network intersectoral group densities increased implying that the system developed a higher level of cross-cutting ties. However, some of the sectors remain disconnected and public sector actors still have a higher level of connectedness with other sectors than any other sector in the system, indicating that decision-making processes in various policy sectors are dominated by the public sector actors and actors from other sectors have low access to policymaking; therefore, opportunities for collective action and collective decision-making are restricted in the southern network. Sorensen and Torfing (2003, p. 617) argue that intersectoral interorganizational participation in decision-making processes is critical for democratic governance as members of various private and civil society groups and organizations “constitute a demos of directly affected people” that governance network must represent so that it is able to “obtain democratic legitimacy”. Thus it is possible to conclude that the southern network lacks democratic legitimacy as it lacks representation.

According to Figure 25, the distribution of densities in the 1999 northwestern network is more even than in the 1999 southern network, and ‘within’ and ‘between’ sector densities are much higher implying that the actors belonging to the same sector cooperate intensely with each other and cooperate with other sectors fairly well. However, some of the sectors in the system are quite disconnected. Economic actors (10) have the highest level of inter and intra group connectivity, which indicates that they have well-established links with each other and with other sectors. This may indicate that in 1999, private actors were interested in building regional

alliances to develop business at the regional level, gain better investment opportunities and occupy prominent regional positions. Regional cooperation with the EU provided them with opportunities that relatively weak Russian economy lacked at that time. However, economic actors do not dominate and suppress actors from other sectors in the system, because actors from other sectors are considerably interconnected and have sufficient intersectoral linkages providing them with fairly good access to overall network exchanges and decision-making opportunities.

Interestingly, Europe-related organizations (5) have low within-sector density, but are very well connected with other groups. Since each of the Europe-related organizations belongs to a particular regional structure existing apart from the regional cooperation framework, this may indicate that these structures do not overlap and each of the organizations targets local actors rather than seeks cooperation with like-minded organizations in the regional cooperation framework. The 2006 northwestern regional cooperation network developed into a very cohesive and balanced system with a high level of cross-cutting ties. All the sectors are well-connected and both inter-sectoral and intra-sectoral densities became higher indicating that the overall level of interconnectivity, and therefore cooperative activity and access to collective decision-making, increased both within and between sectors.

Thus the hypothesis that “networks in the northwestern region have more or less equal densities within blocks and among blocks implying a high level of cross-cutting ties in the system, while in the southern networks, there is a lack of cross-cutting ties as there are big differences in the densities within and among groups” is only partially true. In the northwestern networks, densities within groups and between groups are indeed higher than in the southern networks, therefore, the level of cross-cutting ties is significantly higher in the northwestern system. However, in the northwestern network densities within sectors are higher than densities

between sectors, meaning that the inter-sectoral cooperation is higher than intra-sectoral cooperation.

Figures 26 and 27 display visualized representations of intersectoral cooperation modeled in NETDRAW. Each network was rotated in a way to represent network actors grouped based on their belonging to the same sector and linkages existing between the sectors. Each sector is marked by a separate color (see Figures 12, 13, 14, and 15).

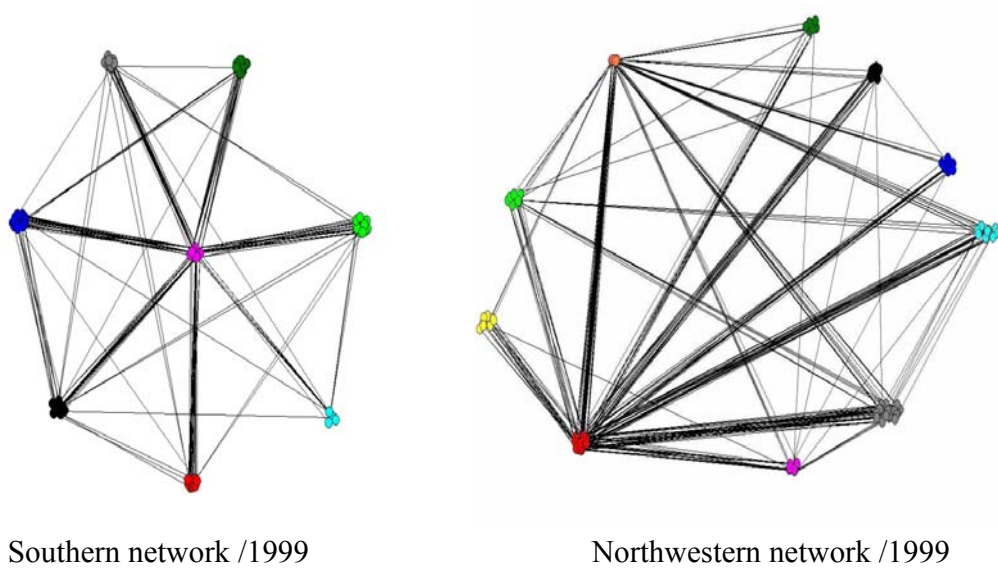
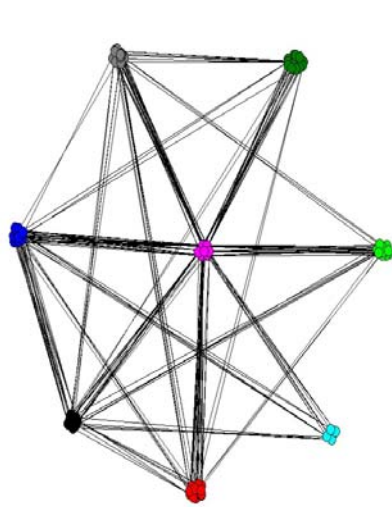


Figure 26: Intersectoral interaction

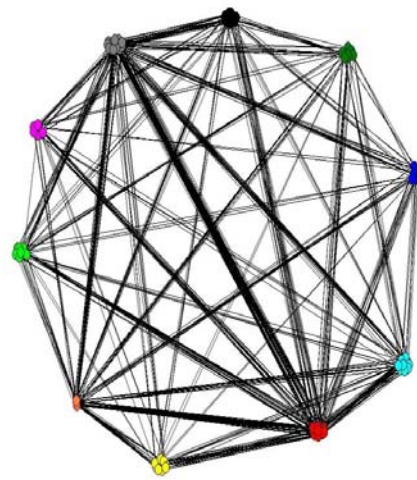
As Figure 26 demonstrates, in the 1999 southern network public sector actors have strong links to all the other sectors. The most disconnected sector is regional mass media (light blue). Except for the public sector-related linkages, other most connected sectors are education (black) and tourism, sport, and entertainment (dark blue); and education and economic sector (red). There are also strong linkages between cultural (light green) and social (grey) sectors, and environment (dark green) and tourism, sport, and entertainment (dark blue). Overall, education

appears to be the second most strongly connected sector in the network. This reflects an interesting phenomenon that there are big universities with strong research centers in the southern region (Kuban University, Rostov University, Stavropol University), which (compared to weak and underdeveloped non-profit organizations and associations existing in the southern region) are well established and respected in the society and have strong and multiple linkages with the local community and access to public authorities. There are many instances when educational institutions in the southern region took the function of civil society organizations and were initiators of collective action or engaged in a dialogue with public authorities over different regional policies and issues.

As far as the 1999 northwestern network is concerned, as discussed previously, economic sector (red) is most strongly connected to other sectors, also Europe-related organizations (dark yellow) are well connected with the other sectors. The least connected sector is transport (light yellow); however, this may be explained by the peculiarity of this sector that it does not involve many social contacts and activities by its nature. It is also important to note that there are strong linkages between the economic (red), civil society (grey) and public sector (pink) actors, which indicates the existence of a regional governance structure with interactive policy processes that reflect, or at least take into account, the interests, preferences and opinions of the members of different regional groups and organizations.



Southern network / 2006



Northwestern network /2006

Figure 27: Intersectoral interaction

Figure 27 demonstrates that there are still missing intersectoral linkages in the southern 2006 network and public sector actors retain dominant positions by having strong links to all the other sectors thereby controlling the system. At the same time, the northwestern network developed into a very cohesive system with more or less evenly distributed strong intersectoral linkages. Economic sector (red) is still highly interconnected with all the other sectors. Social sector (grey) developed very strong linkages with other sectors and became highly connected to all the other sectors. Public (pink), social (grey), education (black), and economic (red) sectors are all well-connected, which is important for democratic governance, social capital, and sustainable development in the region. Therefore, it can be concluded that in the northwestern region, regional cooperation creates an important bridge between the public sector, civil society and the market, thereby making the northwestern regional governance structure more responsive to the needs of the regional community. Inteorganizational cooperation empowers regional

residents with information about economic, public, social, educational, and environmental activity in the region and provides them with access to public officials and regional economic actors, which facilitates higher levels of transparency and accountability of the economic and public sector in the region. High level of cross-cutting ties in the northwestern region is an important factor in explaining why it has higher level of democratic governance than the southern region.

Additionally, According to Meyer (2008), civil society and other non-state actors play a crucial role in regional integration as they bring in new capacities and resources, and moderate the current predominance of public actors and their interests within the policymaking process. Therefore, effective intersectoral cooperation is key to the effective design and implementation of regional policies and is a fundamental basis for successful and efficient regional integration.

Thus is possible to conclude that in the northwestern region, regional integration processes are effective and efficient, while in the southern region high level of centralization of political control over cooperation processes poses the principal obstacle to greater sub-national regionalism.

Node-level hypotheses:

Hypotheses 1, 2, and 3 (factors that explain agent's degree of power and centrality in the networks)

The analysis so far has been focused on the structural peculiarities of the southern and northwestern regional cooperation networks at the whole network and group levels of analysis. In the course of the analysis significant structural differences were found and their implications for the functioning of the networks, as well as the overall network effects on democratic governance and policy processes in the regions were extensively discussed.

It is important to understand the factors that explain structural positions in the regional cooperation networks. For instance, why certain actors are more central than others or why certain actors appear to take most advantageous and powerful positions in the networks. Network centrality is an important element in the study of regional cooperation, because it indicates what actors are in charge of the regional integration processes and therefore, control information exchange and access to resources and opportunities provided by the regional cooperation (for example, opportunity to use regional integration as a means to occupy influential and prestigious position in the region).

It is hypothesized that an actor's degree of centrality and power in the northwestern cooperation network is a function of its size, alliance proactiveness, level of activity in local environment, and international competence. 'Size' is referred to the total number of people working for the organization. Bigger organizations might have more contacts with other organizations (both formal and informal), and therefore may have better awareness of opportunities provided by the regional cooperation. It may also happen that European actors might be interested in involving bigger partners in projects and initiatives because of trust and reliability issues: they might have better knowledge about bigger regional actors than smaller ones. Alliance proactiveness is defined as the total number of partners. If an organization is already engaged in partnerships with other organizations, there might be a better chance that it will get engaged in collaboration with other actors in the regional cooperation framework. The level of activity in local environment is defined as the number of public events organized by an actor during the period of time of one year. And international competence is defined as the level of engagement in international activity of any kind: participating in international exchanges, conferences or other events, or having strategic international partners. International competence

was measured on a 3-point scale- '0' for no competence, '1' for moderate competence and '2' for high competence.

It is hypothesized that power and centrality of an actor in the southern cooperation network depends on its size, budget/income, and whether it comes from the public sector. Public sector variable was coded as '1'. All the other sectors were coded as '2', '3', '4', etc.

For the first dependent variable- centrality- degree centrality measure was chosen. Degree centrality concerns most advantageous positions in the network in terms of network resource exchanges and information flows. Degree centrality indicates how many other network actors are in direct contact with a particular actor. The more actors have connections to an actor, the higher is its degree, and therefore, the greater is its potential to be in the center of events and network exchange processes. Borgatti (2005) points out that degree centrality measure carries with it a set of assumptions with regard to how communication and information flow through a network. In particular, he argues that degree centrality focuses on immediate influence with regard to network flows.

The second dependent variable- power- was defined as an eigenvector centrality measure. According to degree centrality, actors connected to more actors tend to be more central. But this measure does not account for differences in the centrality of one's partners. Actors who are connected to many well connected actors are more powerful than those who are connected to an identical number of poorly connected actors. In other words, those who are in contact with well-connected or 'popular' actors will tend to be more central than those who are connected to the unpopular. I use eigenvector centrality to capture this aspect. This measure assumes that the centrality of a given actor is an increasing function of the sum of all the centralities of all the actors with whom an actor is connected.

Therefore, the models for the analysis are described as follows:

$$\begin{aligned}
 \text{Power 1999} &= \beta_0 + \beta_1 \text{Size} + \beta_2 \text{Activity} + \beta_3 \text{Alliance} + \beta_4 \text{Competence} + \beta_5 \text{Sector} + \beta_6 \text{Budget/Income} + e \\
 \text{Power 2006} &= \beta_0 + \beta_1 \text{Size} + \beta_2 \text{Activity} + \beta_3 \text{Alliance} + \beta_4 \text{Competence} + \beta_5 \text{Sector} + \beta_6 \text{Budget/Income} + e \\
 \text{Centrality 1999} &= \beta_0 + \beta_1 \text{Size} + \beta_2 \text{Activity} + \beta_3 \text{Alliance} + \beta_4 \text{Competence} + \beta_5 \text{Sector} + \beta_6 \text{Budget/Income} + e \\
 \text{Centrality 2006} &= \beta_0 + \beta_1 \text{Size} + \beta_2 \text{Activity} + \beta_3 \text{Alliance} + \beta_4 \text{Competence} + \beta_5 \text{Sector} + \beta_6 \text{Budget/Income} + e
 \end{aligned}$$

Multiple regression method was used to estimate the significance and effect of the parameters discussed above on the position of centrality and power in the networks. SPSS statistical package was used for conducting multiple regression analysis. Tables 14 and 15 display the results of the analysis.

Table 14: Southern Network

	Size	Level of Activity	Alliance proactiveness	Sector	International Competence	Budget/Income
Centrality 1999	0.31*	0.12	0.36	'1'-0.74**	0.27	0.19*
Power 1999	0.28*	0.09	0.24	'1'-0.67*	0.23	0.15*
Centrality 2006	0.34*	0.13*	0.43	'1'-0.62*	0.29	0.14*
Power 2006	0.30*	0.10*	0.37	'1'-0.44*	0.25	0.08*

* significant at the .05 alpha level

** significant at the .01 alpha level

Table 15: Northwestern Network

	Size	Level of Activity	Alliance proactiveness	Sector	International Competence	Budget/Income
Centrality 1999	0.12*	0.34	0.27**	'2'-0.37**	0.42**	0.31
Power 1999	0.07*	0.31	0.24*	'2'-0.32**	0.40*	0.29
Centrality 2006	0.13	0.26*	0.32*	none	0.37*	0.25
Power 2006	0.10	0.28*	0.30*	none	0.35*	0.19

* *significant at the .05 alpha level*

** *significant at the .01 alpha level*

The results indicate that the size of an actor, its budget/income, and sector orientation (whether it belongs to the public sector) were statistically significant factors that had a positive effect on the position of centrality and power in the 1999 southern network. High coefficient for the sector orientation was expected from the previous analysis and goes in line with the previous findings. In 2006 southern network, size, budget/income and sector orientation are still statistically significant positive predictors of an actor's centrality and power in the network. Interestingly, the level of an actor's local activity became a significant positive predictor of centrality and power in 2006. This may indicate that when an actor is engaged in cooperative networking processes, it may acquire support from like-minded organizations and gain strength and popularity in the region by active participation in the life of the local community and organization of various events and activities. Therefore, over time, public sector actors will have to start taking such 'popular' regional actors into account, thereby creating conditions for increase in centrality and power of such actors in the region cooperation infrastructure.

As far as the northwestern network is concerned, in 1999, statistically significant positive predictors of an actor's centrality were the size of an actor, alliance proactiveness, international

competence, and sector orientation. Statistically significant positive coefficients for the sector orientation (2- economic sector, coefficients 0.37 for centrality and 0.32 for power) were expected from the previous analysis and go in line with the previous findings indicating that in the northwestern region, in 1999, the central aspect of regional cooperation was economic integration. Budget/income and the level of local activity turned out to be insignificant variables in predicting actor centrality and power in the 1999 northwestern network. In the 2006 network, power and centrality are affected by alliance proactiveness, international competence, and local activity variables. Size, sector orientation and budget/income proved insignificant.

The findings show interesting tendencies in the regions. The probability that an organization becomes central in the regional cooperation with the EU in the northwestern region is highly dependent on its international competence and alliance proactiveness implying that the overall level of networking and outreach capabilities and mobility of an actor are important in determining whether an actor will occupy a central and powerful position in the regional cooperation processes. In the southern network, centrality and power are more a function of local factors indicating that Russian southern actors are more oriented towards internal regional life rather than external integrative processes.

Regional cooperation-intervention hypothesis:

To evaluate the EU-direct effect on the development of linkages among regional actors in the southern and northwest regions, two square matrixes of the same size (N=100) with the same organizations as in the previous analysis were constructed for each region: one for 1996 (pre-regional cooperation) and one for the most recent period of time, 2008, where relationships

between two actors were measured by a 3 point-scale data – ‘0’ for the absence of a relationship, ‘1’ for a weak relationship, ‘2’ for a strong relationship.

An e-mail or fax (where appropriate) with the list of organizations and a request to check those with whom the actor worked to a great extent (2), little extent (1), and not at all (0) in 1996 and then in 2008, was sent to all the actors. The survey was sent three times. Due the peculiarity of the Russian context (in general, people are not used to surveys or questionnaires and in addition, contact information for some of the actors did not work and some e-mails returned), the overall response rate was 73% (73% out of 100 actors replied) in the northwestern region and 61% in the southern region. Due to the undirected nature of the data, the missing data was filled in by assuming that the relationship was reciprocal with those of respondents and also non-respondents.

The missing data for the rest of the actors was taken from the regional and local newspapers, websites and archival documentation. The relationship was considered ‘strong’ if organizations were in a strategic alliance or interacted with each other on a weakly basis through joint partnerships or initiatives of any kind. ‘Weak relationship’ was assigned if two actors had a few contacts throughout the year or participated in some events or joint projects, but did not interact frequently. In general, a ‘weak relationship’ was assigned for two actors, if there was at least one mention of them interacting with each other or having a joint activity in the materials available. ‘No relationship’ was assigned if there was no mention of the two actors having a joint activity or contacting each other. In the previous analysis, the measure of a relationship between two actors was based on their involvement in the specific Europe-related regional cooperative effort, in this analysis the measure of a relationship is based on the general frequency of interaction between the two actors.

Then two additional square matrixes were constructed for each region, where the relationships between the two actors were measured by the number of EU-related projects/partnerships/activities/deals/initiatives for the period of 1999-2006.

The analysis was conducted in UCINET program.

Network Regression

Research Question: Has regional cooperation with the EU had a positive causal effect on the current network of regional actors?

Hypothesis: Current network is caused, partly and positively, by the ‘cooperation with the EU’ intervention (positive regression coefficient)

Model

This is a quasi experimental design, and regional cooperation is treated as the ‘intervention’ (project/partnership/activity/initiative intervention). A standardized multiple regression model is used.

$\text{Model: } 2006 \text{ Network} = 1997 \text{ Network}X1 + \text{Regional_Cooperation}X2 + e$

Factors

1) Historical path-dependence

History usually plays a significant role in determining the period that follows next in the linear sequence. Network scholars investigate the influence of history on the current state of interorganizational networks and argue that history is an important factor in explaining the current structure of interorganizational networks (Hinings and Greenwood, 1988; Ghezzi and Mingione, 2007). This phenomenon is usually called path-dependency in networks or the legacy of old networks. Therefore, the network path-dependency concept can be extrapolated to this

analysis and it is logical to expect that the current state of relations between organizations is somewhat dependent on their previous interactions.

Time Period 1 → Time Period 2
 1996 Network → 2008 Network

2) *Regional Cooperation*

Regional cooperation intervention is expected to play a significant role in determining the network structures in 2008.

Regional cooperation → 2008 Network

Results

Southern Region

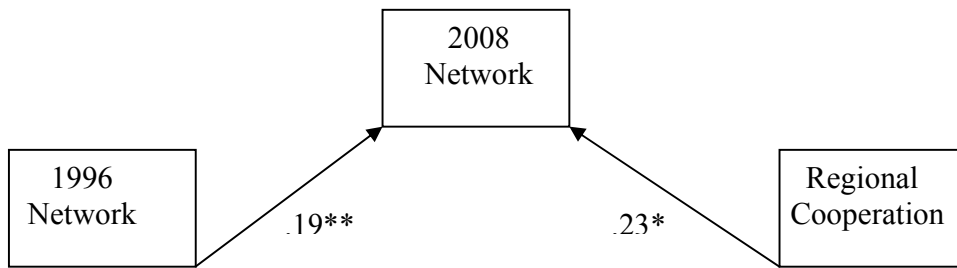
Table 16: Causal effects of the current network

R-square = .39		
<u>Independent</u>	<u>Stand. Coeff.</u>	<u>Significance</u>
1996 Network	.19	0.000
Regional Cooperation	.23	0.048

Northwestern Region

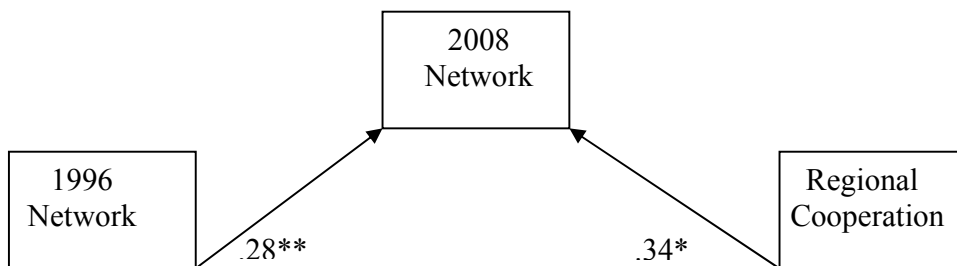
Table 17: Causal effects of the current network

R-square = .44		
<u>Independent</u>	<u>Stand. Coeff.</u>	<u>Significance</u>
1996 Network	.28	0.000
Regional Cooperation	.34	0.032



* significant at the .05 alpha level
 ** significant at the .01 alpha level

Figure 28: Causal Scheme for the Southern Network



* significant at the .05 alpha level
 ** significant at the .01 alpha level

Figure 29: Causal Scheme for the Northwestern Network

The results of the analysis indicate that both the 1996 network and the regional cooperation intervention have a statistically significant positive causal effect on the current network of regional actors. Interestingly, 1996 pre-regional cooperation network has a bigger causal effect on the northwestern network, implying that northwestern actors had a higher level

of interaction and interconnectedness than the southern ones before the intense regional cooperation processes started. In both cases regional cooperation turns out a positive significant factor in developing links and increasing the intensity of interaction among all kinds of regional actors. Therefore, it is possible to conclude that the regional cooperation is an effective tool to facilitate communication and collaboration among actors residing in the Russian northwestern and southern regions. However, regional cooperation has a significantly stronger effect in the northwestern region (0.34 compared to 0.23), and this could be explained by the structural peculiarities of the networks that were discussed in the previous sections of this chapter, and also by different regional historical, ethno-cultural, geopolitical and economic factors, which will be addressed in the next chapter of this dissertation.

5. Energy Networks: Analysis

Network-level hypotheses:

Hypotheses 1 and 2 /Network Centralization

Network centralization has particular relevance for the study of relationships between the Russian energy companies operating in the northwestern and southern regions and provincial governments, as high degree of network centralization will imply concentration of power in the hands of a few. As previously discussed, Russia's economy is heavily dependent on oil and natural gas exports, which generate huge percentage of Russia's export revenues. Various scholars claim that the tendency of the Russian central government to re-assert control over energy resources is also reflected at the regional level, as provincial administrations also tend to establish control over energy-related exploration and production activities occurring in their provinces (Daidov, 2009). In many cases significant stakes in the companies operating in the regions officially belong to regional authorities and it often happens that regional officials establish other formal and informal links with the energy companies. Therefore, network

centralization will indicate to what extent regional decision –making processes in the energy sector are dominated by the alliance between certain public and energy actors.

As discussed previously, network centralization means having one center of control in the network. Alternatively, decentralized systems have broad distribution of control. For the purpose of this study, Freeman’s closeness centrality (or access centrality) and betweenness centrality (or control centrality) were identified as the most useful centrality measures for indicating the levels of network centralization. Closeness centrality (Freeman, 1979) examines how close an actor is to all other actors in the system, in other words, how much access an actor has to other actors. Betweenness centrality (Freeman, 1979) estimates the extent to which an actor is between all other actors in the network. If an actor is between two other actors, it means that there is no direct connection between those actors. From Burt’s (1992, 2000) perspective, a separation between non-redundant contacts (a ‘structural hole’) creates control and power advantages for the actor who bridges the gap.

Therefore, a combination of network centralization measures based on how much certain actors control the system being brokers of relationships between other actors and how much access certain actors have to all other actors would better correspond to the nature of the energy network than the degree of centralization simply based on the number of links incident upon a node (the number of ties that a node has), known as Freeman degree, or eigenvector centrality which estimates the overall importance of an actor in the network.

Energy networks were modeled in UNINET and NETDRAW programs. Figures 30, 31, 32, and 33 display the visualized representations of the networks and Tables 18 and 19 report network centralization scores. Network centralization scores were calculated in UCINET.

Disconnected actors (northwestern network, Pskov and Vologda provincial governments) were removed from the analysis.

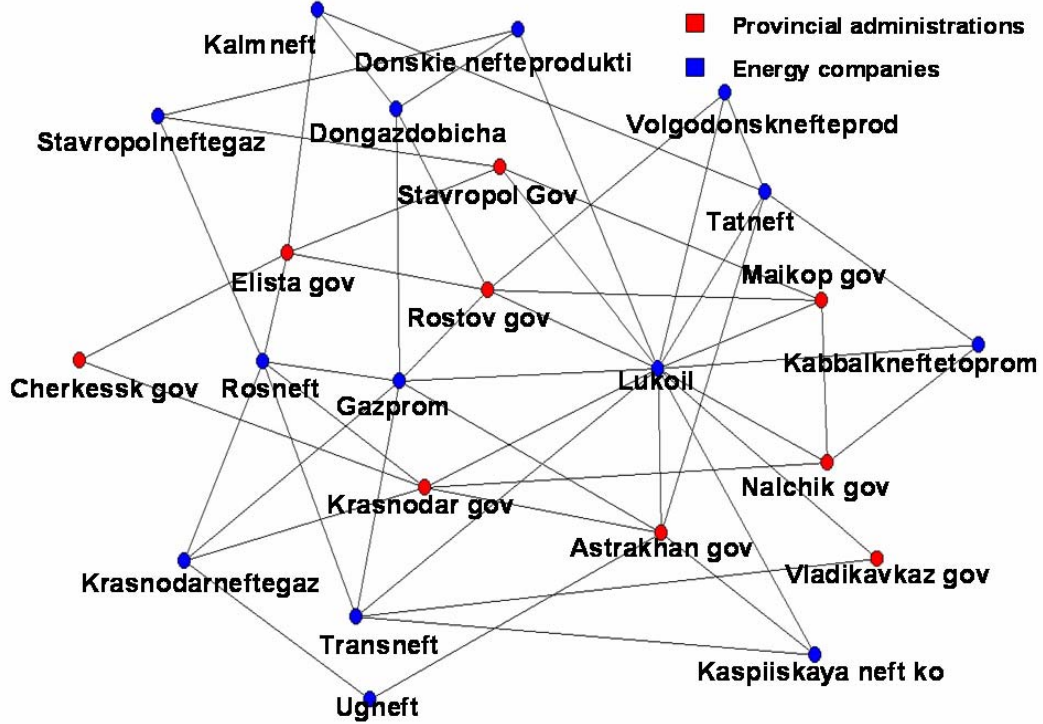


Figure 30: Southern energy network 1999

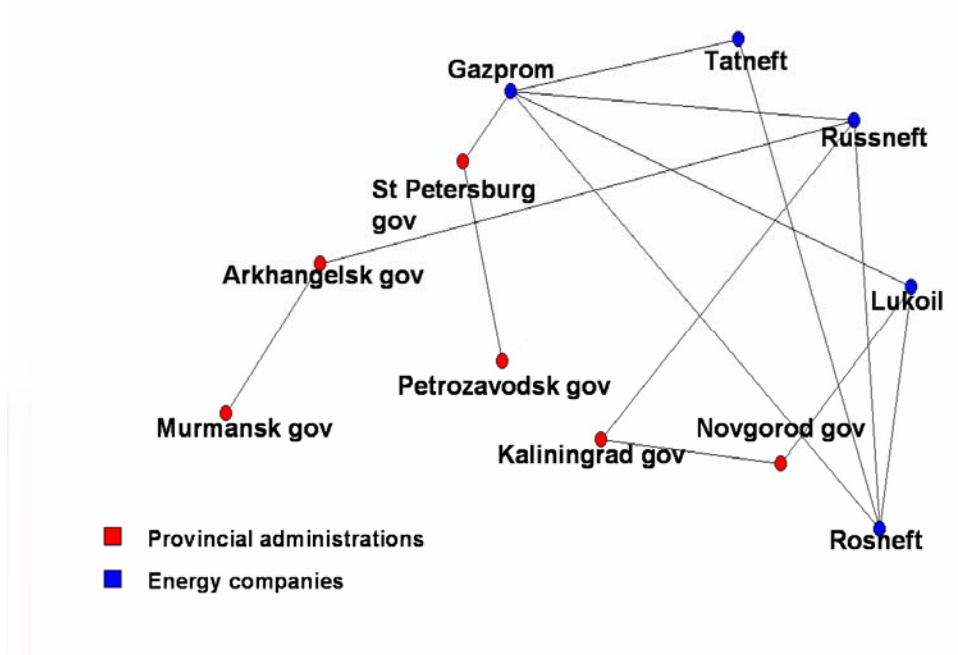


Figure 31: Northwestern energy network 1999

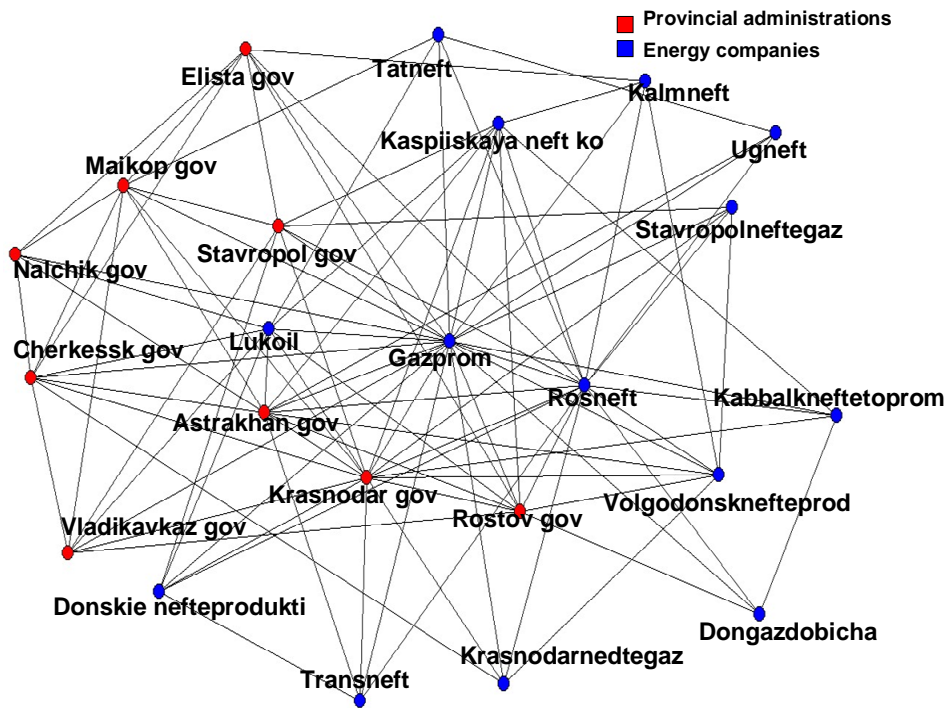


Figure 32: Southern Energy network 2006

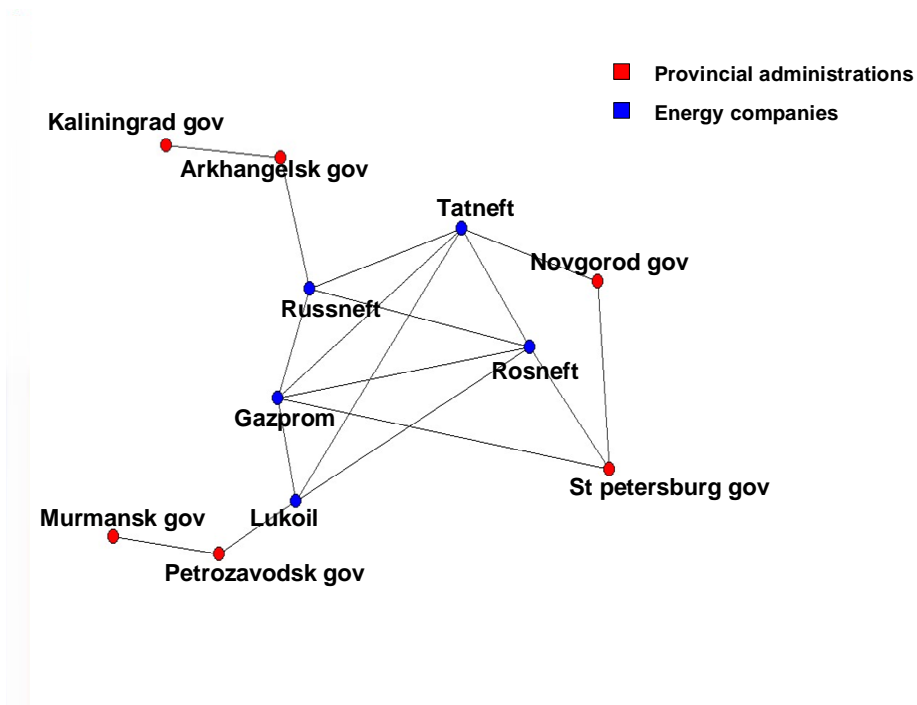


Figure 33: Northwestern Energy Network 2006

Table 18: Network centralization

NETWORK CENTRALIZATION/CLOSENESS (N= 23; N=11)^a

	Centralization
Southern energy network 1999	51.62%
Southern energy network 2006	71.18%
Northwestern energy network 1999	36.02%
Northwestern energy network 2006	30.80%

^a The closer the centralization is to 100%, the more centralized the network.

Table 19: Network centralization

NETWORK CENTRALIZATION/BETWEENNESS (N= 23; N=11)^a

	Centralization
Southern energy network 1999	46.01%
Southern energy network 2006	44.92%
Northwestern energy network 1999	32.22%
Northwestern energy network 2006	20.89%

^a The closer the centralization is to 100%, the more centralized the network.

As Figures 30, 31, 32, and 33 demonstrate and the results of the analysis show, southern energy network is a highly centralized system both in 1999 and in 2006. Northwestern network is on the contrary, a considerably decentralized system. Closeness centrality (or access centrality) significantly increased in the 2006 southern network (71.18% compared to previous 51.62%). Such an increase implies that the central group controlling the network acquired much more access to all the other network actors, as closeness centralization is based on the measure of how close an actor is to all other actors in the system. Betweenness centralization slightly decreases in the 2006 southern energy network (44.92% compared to previous 46.01%) implying that the overall interconnectivity of the system increased, as betweenness centrality is based on the extent to which an actor is between the two unconnected actors and, therefore, is able to control the flow of information and resources from one actor to the other.

As far as the northwestern energy network is concerned, it is more decentralized than the southern network in 1999; and in 2006, it becomes more than 2 times more decentralized in terms of closeness centrality and betweenness centrality than the southern energy network. This indicates that in the northwestern network there is no particular group of actors that controls network exchanges and has influence over other network actors.

It is important to note that some actors that were disconnected from all other actors were removed from the network analysis, otherwise, the northwestern network would be considered completely decentralized from the perspective of closeness centrality, as no matter how certain actors are central in the main network structure, they would still be unable to reach and influence the disconnected actors. Betweenness centrality would be extremely low in this case. It is also important to note that the size of the southern energy network is two times bigger than that of the northwestern one implying that the southern network has more influence and prominence in the southern region than the northwestern network in the northwestern region due to a bigger number of energy actors involved in the network, which gives them an opportunity to act collectively in the regional decision-making processes. The fact that the southern network is much more centralized than the northwestern one significantly adds to its weight and influence in the region.

The results of the centralization analysis show important tendencies in the evolution and development of energy networks. While the northwestern network becomes more decentralized over time both in terms of closeness centrality (access) and betweenness (control) centrality implying equitable sharing of information, resources, and influence among the network actors, the southern network becomes much more centralized around a particular group of actors that have access to all other actors and therefore, dominate the system. The fact that non central actors develop connections among each other slightly mitigates control of the central group over the whole system; however, control exercised by the central group (betweenness centralization) remains very high (45%).

It is important to see what the most central network actors are in both systems. For this purpose, centrality scores for each network actor both in 1999 and 2006 were calculated in UCINET. Appendix of this chapter reports centrality scores for the 10 most central energy actors.

According to the centrality scores, the same actors dominate the southern energy network both in terms of closeness and betweenness centrality. Centrality scores show that in the 1999 southern network, both by closeness centrality and degree centrality, Lukoil Company was the most influential actor implying that it had the highest degree of access to all the network actors and the highest degree of control over them. Other central actors with fairly equal centralities were Gazprom and Rostov government in terms of closeness centrality and Krasnodar government and Gazprom in terms of betweenness centrality.

In 2006, Gazprom becomes most influential regional actor with absolute closeness centrality (100), implying that it has access to all the energy network actors, and with a very high betweenness centrality (59.1) indicating that it controls network communication and resources due to its position as intermediary and broker in network exchanges. In other words, it is possible to say that Gazprom has a rather monopolistic position in the network. Other central actors in the 2006 southern energy network are Krasnodar government, Rosneft, Astrakhan government, Lukoil, Stavropol government and Rostov government. Centrality scores indicate that after Gazprom's leading position, centralities of this group of actors are more or less close, while the rest of the actors have much lower centralities. This implies that Gazprom and these 6 actors form a strategic alliance, which has high influence and control over the rest of the network actors. It is also possible to say that these actors control most of the regional oil and gas assets and occupy strategic positions in respect to energy exports and transits.

As far as the northwestern network is concerned, most central network actors in 1999 were Russneft Energy Company, Gazprom and Rosneft. However, the difference between centrality scores of the most central actors and the least central actors is fairly small, indicating that control and influence are more or less equally distributed in the network.

In the 2006 northwestern network, the most central actors are Gazprom and Lukoil; however, all the other actors have very close centrality scores implying that the system remains open, participatory, balanced and equitable. In other words, all the network actors have more or less equal access to network resources and decision-making processes as there are no actors dominating the network. Saint Petersburg administration is most central in the energy system out of all the provincial administrations, indicating that it is more involved in regional energy issues than the other provincial administrations. This may be explained by the fact that St Petersburg government is becoming very active in respect to the new projects concerning the development of new channels for Russian oil and gas exports, like the Nord Stream project (which is supposed to bring Russian gas directly to Germany) and other. However, centrality scores of provincial administrations indicate that there is no significant variation in the level of control over the network resources among provincial administrations implying that there is no highly dominant actor in the system.

Therefore, the hypothesis that the northwestern energy network is more decentralized than the southern energy network proves true.

Network-level hypotheses:

Hypothesis 3 /Network Cohesion

As discussed previously, network cohesion is associated with the degree of interconnectedness of network actors. High network cohesion in energy networks would indicate that the energy companies operating in the regions have tight relationships with provincial governments; therefore they would have direct access to energy politics at the regional level and provincial governments would have direct involvement in the regional energy sector. .

This study employs the combination of the same measures of cohesion as in the case with the regional cooperation networks.

Network density

Density is a measure of overall network interconnectivity. Network analysts claim that in networks with positive externalities, high density is important for maintaining collective action and ensuring enforcement of collective norms (Coleman, 1988, 1990), while in networks with negative externalities (e.g. extremist groups) high level of density is perceived as a negative phenomenon indicating high capability of the network to exert its negative externalities (Memon, Larsen, 2006). Density degree of the energy networks will be important indicator of their strength and influential capability.

Network densities for the northwestern and southern energy networks were measured in UCINET and Table 20 reports network density scores:

Table 20: Network density

NETWORK DENSITY (N= 23; N=11)^a

	Density
Southern Energy Network 1999	10.27 %
Southern Energy Network 2006	46.22 %
Northwestern Energy Network 1999	11.00 %
Northwestern Energy Network 2006	19.62 %

^a The closer the density is to 100%, the denser the network.

Network density analysis results indicate that the densities of the southern and northwestern energy networks were more or less the same in 1999. However, in 2006 the southern network became much denser. In 2006, the density of the southern energy network is two times higher than that of the northwestern one implying that the southern energy actors have much tighter and more developed connections than the northwestern ones. High density indicates that there is high frequency of communication flows in the southern energy network and the

network is faster mobilized for collective action. The results of the density analysis also indicate that provincial administrations in the southern region are much more involved in the energy issues than their colleagues in the northwestern region. These findings go in line with the fact that in the northwestern region due to the lack of production and exploration activities, energy companies and provincial administrations communicate with each other mainly about export routes and transit pipelines, which does not presuppose intense communication, negotiation, bargaining, and power struggle, while in the southern region, due to the existence of rich oil and gas resources and significant exploration and production activity, there are many energy actors who are interested in influencing regional energy policy issues, and at the same time, provincial governments are motivated to develop connections with the energy actors as the revenues from the energy sector are important for their budgets.

Transitivity

As discussed previously, transitivity measures triadic closeness meaning the level of connectedness of all the actors in triads. High transitivity is associated with the big percentage of interconnected triads in the system. High level of transitivity in energy networks would be an indicator of deep embeddedness of network actors in the network structure implying good awareness of each other and overall network processes. Table 21 reports the results of the transitivity analysis.

Table 21: Network transitivity

NETWORK TRANSITIVITY (N= 23; N=11)

	Transitivity
Southern Energy Network 1999	3.13%
Southern Energy Network 2006	9.09%
Northwestern Energy Network 1999	4.24%
Northwestern Energy Network 2006	4.85%

Transitivity results indicate that in general energy networks do not have high transitivity. In the southern network it can be explained by the issues of control, when one actor exploits disconnectedness between the two other actors in a triad for its own benefit (as the network has a high betweenness centralization degree), while in the northwestern network the lack of transitivity is more due to the general lack of connectedness among network actors. However, in 2006, transitivity increased in the southern network (9.09 compared to 3.13) implying that the actors became more embedded in the network structure and interdependent.

Compactness

Compactness is a measure of the ‘distance’ between actors. A compact network would have short paths between its actors. Table 22 reports compactness (or distance-based cohesion) indexes for the southern and northwestern energy networks.

Table 22: Network compactness

NETWORK COMPACTNESS (DISTANCE-BASED COHESION) INDEXES
(N= 23; N=11)^a

	Compactness Indexes
Southern Energy Network 1999	0.430
Southern Energy Network 2006	0.626
Northwestern Energy Network 1999	0.440
Northwestern Energy Network 2006	0.612

^a range 0 to 1; larger values indicate greater cohesiveness.

Distance-based cohesion indexes indicate that both networks became more cohesive over time, however distance-based cohesion is dependent on the size of the network as in smaller networks actors are situated closer to each other (the smaller the size of the network, the shorter the paths between network actors are). Therefore, if we estimate compactness with respect to the size of the networks, southern energy network will be significantly more compact than the

northwestern one. High degree of distance-based cohesion shows that in both energy systems actors are well informed of each other and the whole politics, dynamics, and outcomes of regional processes in the field of energy.

All the measures of network cohesion indicate that in 1999, the southern energy network and the northwestern energy network had similar level of cohesion, however over time southern energy network developed into a much more cohesive system. Therefore, the hypothesis that “energy network is more cohesive in the southern region and the degree of cohesion of the southern network increases significantly over time, while the level of cohesion of the northwestern energy network does not increase significantly over time” is only partially true as the level of cohesion of the northwestern network also increases over time, however, at a much lower pace than that of the southern network.

It is important to note that there is a big difference in the way both networks develop linkages among network actors. Northwestern network becomes more cohesive with a low level of centralization, which indicates that the network actors increase interaction and communication, but at the same time all the actors have more or less equal access to the network flows and decision-making processes. This characterizes the system as open and balanced in terms of the distribution of control and influence. Additionally, if we take a look at the configuration of the northwestern network both in 1999 and 2006, it becomes clear that provincial governments are not extensively involved in the regional energy issues. In the southern network increase in cohesion is accompanied by a significant increase in centralization with a particular group of actors occupying most prestigious positions in the system. Also, from the configuration of the network it is clear that in the southern region provincial administrations are highly involved in

the regional energy issues. Therefore, based on the results of the analysis it is possible to conclude that the southern energy network generates ‘unsocial capital’ more intensely.

Network-level hypotheses:

Hypotheses 4 and 5 / Power and core- periphery relations

Power is a very relevant measure in the analysis of the energy networks as struggle for power is an indispensable feature of the Russian energy sector due to its big profits and also political issues connected with the energy field. The degree of power would indicate the level of assertiveness of actors in the energy sector and a big difference between actors’ power scores would indicate power asymmetry and concentration of power in the hands of a few.

For the analysis of power in the energy network, I use Bonacich’s power measure based on an actor’s connectedness to others that are not well connected. Appendix of this chapter reports power scores for the network actors. The range of power scores indicates that in the northwestern system power is evenly distributed among network actors, while in the southern network there is a big asymmetry of power, as there is a very big difference between the power scores of the most powerful and the least powerful actors.

Power scores also indicate the existence of a strategic alliance in the 2006 southern energy network constituted by Gazprom (most powerful actor), Rosneft, Lukoil, and the following provincial governments: Krasnodar government, Stavropol government, Rostov government, and Astrakhan government.

To be able to estimate how much power over the whole system provincial governments have in the energy field, power scores of provincial governments were summed up and divided by the sum of the power scores of energy companies. Table 23 shows the percentage of collective power obtained by provincial administration in the energy sector.

Table 23: Collective power of administrations

Networks	Collective power
Southern energy network 1999	30%
Southern energy network 2006	44 %
Northwestern energy network 1999	9 %
Northwestern energy network 2006	6 %

The results of collective power analysis indicate that the power of provincial administrations in the southern system significantly increased (44% compared to previous 30%). This implies that provincial administrations expand their power over the energy sector. These findings support the general tendency of the Russian state to become increasingly involved in the energy sector and control energy politics. The power of provincial administrations over the energy sector in the southern region is much higher than that of the provincial administrations in the northwestern region (44% compared to 6% in 2006). This can be explained by the fact that in the northwestern region the main energy issues are related to energy transit pipelines and exports, which is more the sphere of influence of the national government. In the southern region, where energy companies are involved in exploration, production and transportation activities on the territory of the provinces, provincial administrations have more opportunity to be involved in the energy sector and, as the analysis shows, they take good advantage of this opportunity.

Core-periphery analysis is an extension of the collective power analysis. However, it does not separate actors according to their actual sectors, but identifies the powerful core on the basis of the most connected actors who control poorly connected ones. In the energy networks, the existence of a distinct core-periphery structure would indicate unequal distribution of control and

the grip of power by a few actors (as in an ideal core-periphery model, core is significantly smaller than periphery).

The results of the application of the core-periphery model to the energy networks are displayed in Table 24. The table demonstrates density measures within the core (1-1), within the periphery (2-2), and between the core and the periphery (1-2 or 2-1) along with the corresponding model fit and the number of organizations constituting the core.

Table 24: Core-periphery model

C/P /south/ 1999		C/P /south/ 2006		C/P northwest/1999		C/P /northwest/2006		
1	2	1	2	1	2	1	2	
-----	-----	-----	-----	-----	-----	-----	-----	
1	0.794	0.417	1	0.889	0.659	1	0.571	0.130
2	0.417	0.104	2	0.659	0.103	2	0.130	0.093
3 actors in the core		7 actors in the core		5 actors in the core		5 actors in the core		
Final fitness: r=0.512		Final fitness: r=0.643		Final fitness: r=0.326		Final fitness: r=0.315		

The results indicate that the southern energy network both in 1999 and 2006 may be divided into a core and a periphery as there is a core of well-connected actors who are also well connected to peripheral actors, while peripheral actors are poorly interconnected. The final model fit of $r = 0.512$ (1999) and $r = 0.643$ (2006) indicates that the southern energy network approximates an ideal core-periphery structure well. The partial density of relations among the members of the core of the 1999 southern network amounts to 79%. Compared to the overall density of the entire network of 10.27 %, the level of information and resource exchange within the core has to be judged as highly intense. Moreover, actors belonging to the periphery are weakly connected with each other; the respective partial density in this segment is 10%. Finally,

the partial density of the intersections between the core and the periphery amounts to 42%, which indicates that the core has significant control over the periphery. The core of the 1999 southern network is constituted by 3 organizations: Lukoil, Gazprom and Rostov government.

As far as the 2006 southern network is concerned, it yields even better approximation of the core/periphery model (final model fit $r=0.541$ compared to $r=0.512$). The partial density of relations among the members of the core of the 2006 network amounts to 89%, which indicates an increase in interconnectivity of the core members. Peripheral actors become slightly less connected and partial density of the intersections between the core and the periphery amounts to 66%, which shows that the periphery is highly controlled by the core. The core of the 2006 southern network is constituted by 7 actors: Gazprom, Rosneft, Lukoil, Krasnodar government, Rostov government, Astrakhan government, and Stavropol government. These findings go in line with the previous analysis, therefore, it is possible to conclude that these actors are the most powerful and influential actors in the system and they have great control over all the other network actors.

As far as the northwestern energy network is concerned, the results of the core/periphery analysis indicate that the structure of the 1999 network does not approximate an ideal core-periphery model. Model fits of $r=0.326$ and $r=0.315$ are considered low for accepting the model. However, if one accepts the model, then the core actors will be 5 energy companies operating in the region and the peripheral actors will be provincial governments.

The findings of the core-periphery analysis have important implications for the development of the energy sector in the regions. The results of the analysis indicate that in the southern region, provincial administrations have much control over the energy sector. Furthermore, power and control are distributed unequally in the southern energy sector, in a way

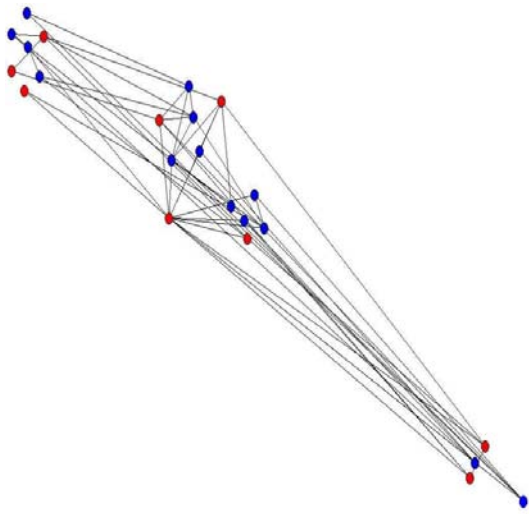
that 3 major companies and 4 provincial administrations are controlling the rest of the actors. In the northwestern region, provincial governments are not assertive in the energy sector. Moreover, exchange processes that exist among energy companies in the northwestern region are much more equally distributed than in the southern region and even one of the most influential actors, Gazprom, does not monopolize network exchanges to the extent it does in the southern region. This may be occurring for a variety of reasons, some of which have been already discussed (lack of production and exploration opportunities in the region), and some other reasons (*e.g.* cultural and historical) will be addressed in the next chapter of this dissertation.

Network-level hypotheses:

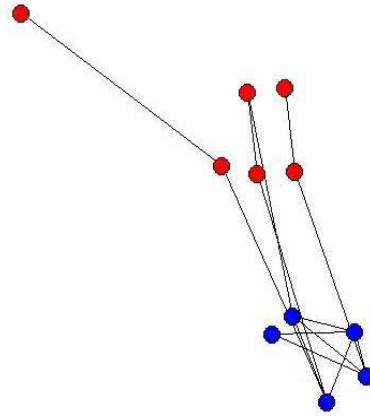
Hypothesis 6 / Network Structure

As discussed previously, differentiation of network actors in a network structure has important implications for network information and communication flows and for the distribution of power and opportunities in the system. In networks based on undirected data (like energy networks) this differentiation may have horizontal or vertical nature depending on the number of network structural levels and the differences in distances between network clusters.

Burt's hierarchy analysis was applied to the energy networks for the analysis of their structural differentiation. Figures 34 and 35 display the results of the analysis. The networks are rotated in NETDRAW vertically according to Burt's hierarchy measures for better visualization of network levels. Energy companies are marked by blue color and provincial administrations are marked by red color. Actors that are at the top of Burt's hierarchy are placed at the bottom of the figures.

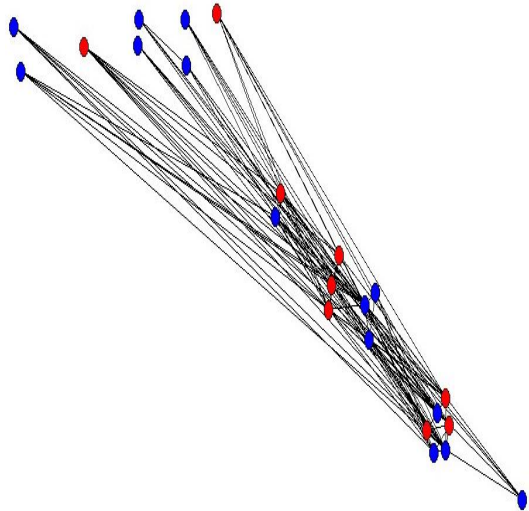


Hierarchy/ Southern network/ 1999

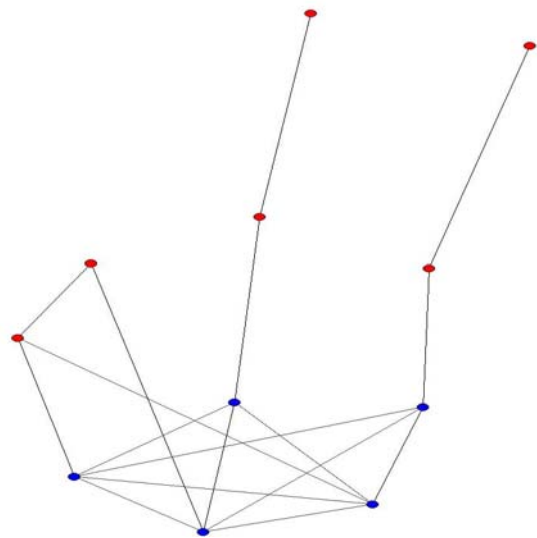


Hierarchy/ Northwestern network/ 1999

Figure 34: Network hierarchy analysis



Hierarchy/ Southern network/ 2006



Hierarchy/ Northwestern network/ 2006

Figure 35: Network hierarchy analysis

The figures indicate that in the southern networks, there are significant distances between well-differentiated network clusters that consist of both provincial administrations and energy companies. Several key network actors are the most popular and powerful actors in the system. Ties are concentrated around these actors, indicating that the network is structured vertically rather than horizontally. Such a structural differentiation hinders network exchanges and affects network communication and information flows.

As far as the northwestern network is concerned, it mainly consists of two clusters—energy actors and provincial administrations adjacent to them. Due to the small size of the network, it is difficult to judge about the distances between the clusters as there are short paths in the network and even the furthest actor can reach actors who are at the top of Burt's hierarchy considerably fast.

Node-level hypothesis (based on node structural and resource attribute data):

It is hypothesized that an actor's degree of centrality and power in the energy networks is a function of its size and income. The peculiarity of the modern Russian energy sector at the national level is that big companies that are well supported by the government dominate smaller companies, and as a consequence gain more power over energy politics over time. In many instances, significant shares of energy companies officially belong to the government. The same tendency seems to occur at the regional level; therefore, it would be logical to expect that there is a positive relationship between an actor's size and income and its degree of centrality and power in the energy network. Thus the independent variables are the size of a network actor, meaning the number of people employed by the actor in a particular region, and its income (if it is an energy company) or budget (if it is a provincial administration). The peculiarity of the Russian regional context is that some regions have significantly bigger budgets depending on the

territorial size of a region, its population, revenues and other factors. Therefore, the size of the regional budget might be an important variable in predicting the level of an administration's power and centrality in the energy network.

For the first dependent variable- centrality- betweenness centrality measure was chosen. As discussed above, betweenness is a measure based on the actor's occurrence on many shortest paths between other actors. Betweenness centrality reflects how much control over other actors and over network exchange processes an actor has.

The second dependent variable- power- was defined as an eigenvector centrality, a measure based on the connectedness of an actor to other actors that are well-connected. Therefore, an actor with high eigenvector centrality has access to and power over the most active network members.

The models for the analysis are described as follows:

$\mathbf{Power\ 1999 = \beta_0 + \beta_1 Size + \beta_2 Budget/Income + e}$
$\mathbf{Power\ 2006 = \beta_0 + \beta_1 Size + \beta_2 Budget/Income + e}$
$\mathbf{Centrality\ 1999 = \beta_0 + \beta_1 Size + \beta_2 Budget/Income + e}$
$\mathbf{Centrality\ 2006 = \beta_0 + \beta_1 Size + \beta_2 Budget/Income + e}$

Multiple regression method was used to estimate the significance and effects of the parameters discussed above on the positions of centrality and power in the energy networks. SPSS statistical package was used for conducting multiple regression analysis. Tables 25 and 26 display the results of the analysis.

Table 25: Southern Network

	Size	Budget/Income
Centrality 1999	0.28**	0.35*
Power 1999	0.30**	0.42*
Centrality 2006	0.32*	0.39*
Power 2006	0.43*	0.46*

* *significant at the .05 alpha level*

** *significant at the .01 alpha level*

Table 26: Northwestern Network

	Size	Budget/Income
Centrality 1999	0.15	0.09*
Power 1999	0.19	0.11*
Centrality 2006	0.29	0.24*
Power 2006	0.22*	0.31**

* *significant at the .05 alpha level*

** *significant at the .01 alpha level*

The results of the analysis indicate that both the size of an actor (the number of people working for an actor in the region) and its income/budget are statistically significant positive predictors of its centrality and power in the southern energy network. The results also show that over time, the positions of power and control in the southern network are becoming more dependent on the size and income/budget of an actor, as coefficients increase. Therefore, it is possible to conclude that in the southern region, the most influential energy actors are big actors with strong financial capabilities.

As far as the 1999 northwestern network is concerned, the size of an actor appeared to be insignificant, indicating that it is not a good predictor of an actor's centrality and power in the

network. This may be explained by the fact that due to the lack of exploration and production opportunities in the northwestern region, fewer people are employed by companies. Interestingly, in 2006, size turns out a statistically significant positive predictor of an actor's power in the northwestern network. This may be explained by the fact that several companies increased their presence in the northwestern region to be able to participate in the new export transit projects (like Nord Stream). However, power coefficient is considerably low compared to the southern network (0.22 compared to 0.43) indicating that the size of an actor has smaller influence on the position of power in the northwestern network than in the southern network.

The income/budget of an actor turned out to be a statistically significant positive predictor of an actor's centrality and power both in the 1999 and 2006 northwestern network. However in 1999, coefficients are considerably low indicating that the variable had small effects on the positions of centrality and power in the network. In 2006, coefficients become significantly higher indicating that the income/budget of an actor has a bigger impact on the positions of centrality and power, which implies that the most influential network actors are those with bigger financial capabilities.

The variable 'size' was coded as the number of people working for the company in the region; however, due to the lack of production and exploration activities in the northwestern region, companies are represented by fewer employees than in the southern region, which is rich in energy resources and extraction and production activities associated with the existence of energy deposits. It would be important to see whether the total size of an energy company influences its position in the energy network in respect to power and centrality. By total size I mean total number of people employed by the company in all the regions of the Russian Federation. Therefore, energy actors were separated from provincial administrations and their

network power and centrality scores were used as a dependent variable. Simple regression in SPSS was conducted to estimate whether there is a relationship between the total size of the company and company's position in the energy network.

The model for the analysis is represented as follows:

$\text{Power 1999} = \beta_0 + \beta_1 \text{Size_total} + e$ $\text{Power 2006} = \beta_0 + \beta_1 \text{Size_total} + e$ $\text{Centrality 1999} = \beta_0 + \beta_1 \text{Size_total} + e$ $\text{Centrality 2006} = \beta_0 + \beta_1 \text{Size_total} + e$

Tables 27 and 28 report the results of the analysis.

Table 27: Southern Network

	Size
Centrality 1999	0.38*
Power 1999	0.41*
Centrality 2006	0.45*
Power 2006	0.49*

* significant at the .05 alpha level

** significant at the .01 alpha level

Table 28: Northwestern Network

	Size
Centrality 1999	0.09*
Power 1999	0.15*
Centrality 2006	0.18*
Power 2006	0.22*

* significant at the .05 alpha level

** significant at the .01 alpha level

The results of the analysis indicate that the total size of an actor is a statistically significant positive factor in predicting actors' power and centrality in the energy networks. Coefficients are higher in the southern energy system implying that the size of an actor has a bigger impact on the positions of centrality and power in the southern energy network.

The results of the analysis go in line with the general tendency of big energy companies in Russia to increase their presence and influence in decision-making processes in the energy sector. This is also reflected in the way energy companies behave at the regional level. However, based on the results of the analysis, it is possible to conclude that in the regions with a low level of oil and gas exploration and production, energy companies have smaller effect on regional decision-making processes and there is a lower chance that a particular group of energy actors will dominate the energy sector due to the smaller size of the energy network (fewer energy companies operate in the regions) and network structural differences, as energy networks in such regions are more decentralized, and power and control are more equally distributed in the energy systems.

Network-level hypotheses:

Hypothesis 8/ Consensus and effect on decision-making

The structure of interorganizational relationships has been recognized as having significant influence on the character and level of an organization's performance and collective performance of organizations embedded in it (Evan, 1972; Pennings, 1981). According to interorganizational network analysts, collective effectiveness and efficiency is dependent on the formation of consensus in networks.

Sørensen and Torfing (2005) claim that effective governance networks establish a framework for consensus building, which facilitates resolution of conflicts among stakeholders and problem solving. Other organizational theorists and scholars similarly argue that effective

governance networks tend to develop their own logic of appropriateness that regulates the process of communication, negotiation and information exchange, and the formation of consensus and attempts to resolve conflicts (March and Olsen 1995, p. 27; Mayntz 1991, p. 17). Appelman, Rouwette, and Qureshi (2002) claim that consensus has important impact on the effectiveness of decision-making processes and the diffusion of norms and values among network members that helps to achieve mutual benefits.

Therefore, the level of consensus in the regional cooperation and energy networks would be an important indicator of their influence on decision-making processes in the regions. High level of consensus in the regional cooperation networks would indicate the existence of interactive and effective governance structures in the regions, participants of which share common interests, norms and values, as regional cooperation networks involve multitude of actors from different sectors and aim at solving important regional and transregional social, economic, health, and environmental problems. High level of consensus in energy networks would imply an overlap between energy sector actors' interests and the interests of the regional public sector actors and would indicate that energy structures have a strong effect on the regional decision-making processes.

Fabio and Howe (2009) found out that network structural properties have a big impact on the in-group agreement, even when controlling for other parameters in the model. So far interorganizational network analysts have been mainly concerned with the analysis of network structural elements that facilitate or impede consensus, but few studies were concerned with measuring consensus in interorganizational networks. Based on consensus models used in the information theory, I propose a method to evaluate consensus in interorganizational networks.

Distributed consensus is a canonical problem in control, distributed decision making and sensor network signal processing (Tsitsiklis, 1984). The prototypical example of a distributed consensus is the so called average consensus. In this scenario each node i in the network consisting of N nodes initially has a value (typically measurement) y_i . The goal is to calculate the average, $\bar{y} = \frac{1}{N} \sum_{i=1}^N y_i$ at every node in a distributed fashion, so that only pairwise information exchanges between connected nodes are used to calculate the average. One of the most extensively studied iterative algorithms achieving this goal is the distributed averaging algorithm (Xiao and S. Boyd, 2004). Within the framework of this algorithm connected nodes in the network exchange information at time instances $k = 1, 2, \dots$ and perform updates of their values $y_i(k)$. This can be briefly described as follows. At iteration k each node first broadcasts its own value and then receives values of his neighbors. After that each node replaces its current value with the weighted sum of the received values and its own values. This iteration can be written in matrix form

$$\mathbf{y}(k) = \mathbf{W}\mathbf{y}(k-1)$$

Where $\mathbf{y}(k) = [y_1, y_2, \dots, y_N]^T$ is the vector containing values of all nodes comprising the network and \mathbf{W} is a weight matrix constructed to comply with network topology constraint, *i.e.* $\mathbf{W}[i, j] = w_{i,j}$ if nodes i and j are connected and $\mathbf{W}[i, j] = 0$ otherwise. Here $w_{i,j}$ is a weight chosen according to a certain rule (Xiao and S. Boyd, 2004), which is used by node i when it incorporates the information at node j during the update. Without loss of generality we suppose that information exchanges in the network are undirected and thus \mathbf{W} is symmetric. Under mild assumptions on the structure of \mathbf{W} distributed averaging algorithm is shown to converge to the average (consensus) at every node asymptotically, *i.e.* when $k \rightarrow \infty$.

It is assumed that by studying the convergence properties of the distributed averaging algorithm on the network topologies induced by the interactions in the energy sector and the EU-Russian regional cooperation in the northwestern and southern regions, we can infer how these networks behave when other distributed inference and decision making processes take place in these networks. In the case of symmetric \mathbf{W} , the convergence of the distributed averaging algorithm is described by the following equation (Xiao and S. Boyd, 2004):

$$\|\mathbf{y}(k) - \bar{\mathbf{y}}\| \leq [\rho(\mathbf{W} - \mathbf{J})]^k \|\mathbf{y}(0) - \bar{\mathbf{y}}\| \quad (1)$$

Where $\|\cdot\|$ is a distance metric, $\|\mathbf{y}(0) - \bar{\mathbf{y}}\|$ is the initial distance of the network state from the consensus state, $\|\mathbf{y}(k) - \bar{\mathbf{y}}\|$ is the distance of network state at iteration k from the consensus state, $\rho(\mathbf{W} - \mathbf{J}) \geq 0$ is the spectral radius of matrix $\mathbf{W} - \mathbf{J}$, and \mathbf{J} is the ideal averaging operator such that

$$\mathbf{J} = \begin{bmatrix} 1/N & 1/N & \cdots & 1/N \\ 1/N & 1/N & \cdots & 1/N \\ \cdots & \cdots & \cdots & \cdots \\ 1/N & 1/N & \cdots & 1/N \end{bmatrix} \quad (2)$$

And we see that $\bar{\mathbf{y}} = \mathbf{J}\mathbf{y}(0)$, i.e. network converges to the average after one information exchange (note that this is only possible when the network is fully connected – each node is connected to every other node in the network). We see that according to (1), $\rho(\mathbf{W} - \mathbf{J})$ is the measure of how fast the distance between the current network state and the consensus state contracts. Since we have a k -th power of $\rho(\mathbf{W} - \mathbf{J})$ in (1), the distance between current state of the network and consensus state becomes less at every iteration if $\rho(\mathbf{W} - \mathbf{J}) < 1$. There are two extreme situations defined by the structure of network topology. First, $\rho(\mathbf{W} - \mathbf{J}) = 0$ (in which

case the network is fully connected and $\mathbf{W} = \mathbf{J}$). Second, $\rho(\mathbf{W} - \mathbf{J}) = 1$ (in which case associated network has isolated non-connected clusters and convergence to consensus is not guaranteed). All other cases are in between those two and particular value of $\rho(\mathbf{W} - \mathbf{J})$ is defined by the weight matrix construction mechanism and network topology. For a fixed weight matrix construction mechanism the value of $\rho(\mathbf{W} - \mathbf{J})$ is defined only by the network topology. As a rule, for more densely connected networks $\rho(\mathbf{W} - \mathbf{J})$ has smaller value and consensus algorithm converges faster (network has better information diffusion properties) whereas for sparse networks $\rho(\mathbf{W} - \mathbf{J})$ is large and information diffuses slowly.

In the following figures I show the bounds (identified by the log of equation (1)) on the convergence curves of the consensus algorithm. It is important to note that these bounds are tight in the sense that there exists a configuration of the initial vector $\mathbf{y}(0)$ such that the convergence of consensus algorithm is described by (1) with equality. Thus Figures 36 and 37 given below show worst case performance of the consensus algorithm. The experiment conditions are as follows. To construct weight matrix \mathbf{W} I have used Metropolis-Hastings algorithm (Xiao and S. Boyd, 2004) and $\rho(\mathbf{W} - \mathbf{J})$ was calculated using singular value decomposition of \mathbf{W} . The plots are in log scale and they depict the following version of (1):

$$\log\|\mathbf{y}(k) - \bar{\mathbf{y}}\| \leq k \log[\rho(\mathbf{W} - \mathbf{J})] + \log\|\mathbf{y}(0) - \bar{\mathbf{y}}\|,$$

which is the equation of a straight line with the slope defined by $\log[\rho(\mathbf{W} - \mathbf{J})]$. The x axis corresponds to iteration number, k , and the y axis corresponds to the log-error $\log\|\mathbf{y}(k) - \bar{\mathbf{y}}\|$. It is important to note that the less is $\rho(\mathbf{W} - \mathbf{J})$ the better is the network suitable for information fusion and agreement among network actors and the faster the corresponding line in the plot goes to $-\infty$ (the state of corresponding network converges to the state of consensus faster). Figures

36 and 37 display bounds on the convergence to consensus algorithm run over the network topology induced by the relationships in the regional cooperation and energy networks. The closer the line is to '0', the faster is convergence to consensus. 'BS' stands for the Black Sea Area, and 'ND' stands for the Northern Dimension.

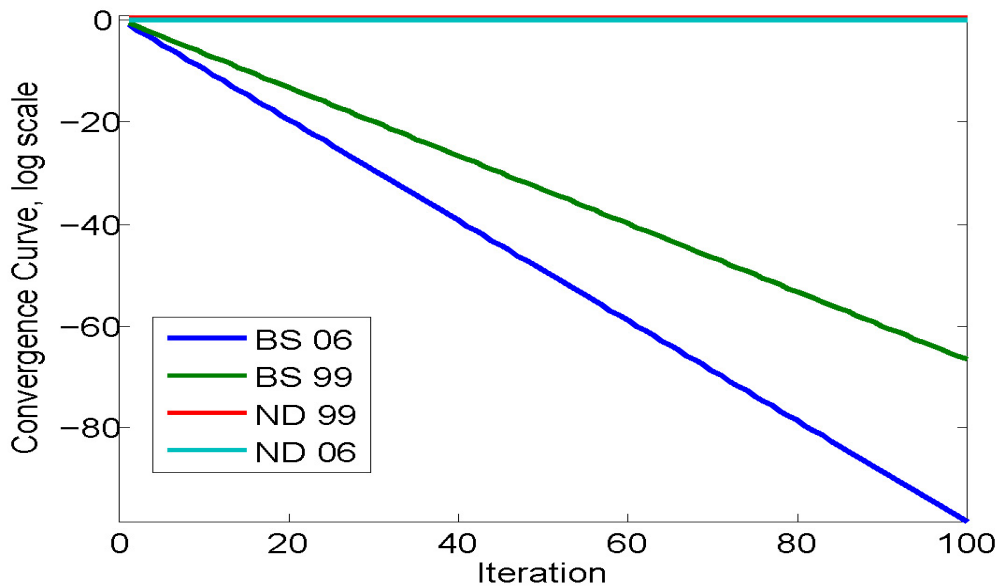


Figure 36: Convergence to consensus in the energy sector

The blue line in Figure 36 converges faster than the green one. The blue line corresponds to the energy network in the southern region in 1999 and the green line corresponds to the energy network in southern region in 2006. This indicates that in the southern energy network developed from 1999 to 2006 to facilitate better information diffusion and agreement among its members. It is important to note that in general, the southern energy network both in 1999 and 2006 has high rate of convergence to consensus. On the contrary, we see that the northwestern network is underdeveloped and contains non-connected clusters ($\rho(\mathbf{W} - \mathbf{J}) = 1$); therefore, there is no convergence to consensus.

It is possible to conclude that the consensus analysis indicates the existence of a strong and consolidated energy structure in the southern region which has a strong effect on the regional policy-making processes. At the same time, the energy structure in the northwestern network is fragmented, therefore, does not have a significant direct effect on decision-making in the northwestern region.

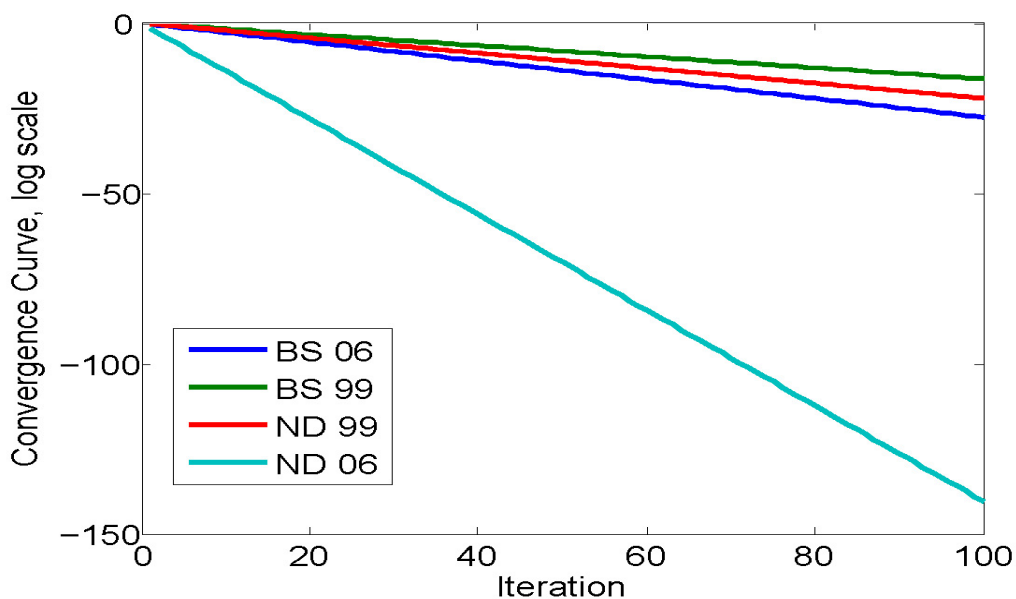


Figure 37: Convergence to consensus in the regional cooperation sector

As Figure 37 displays, the northwestern regional cooperation network has a higher rate of convergence to consensus than the southern one both in 1999 and in 2006. Furthermore, the northwestern network's consensus convergence rate has significantly increased from 1999 to 2006, while in the southern network the increase is comparatively low. However, the southern cooperation network also shows a tendency to develop better consensus convergence properties over time. Therefore, it is possible to conclude that regional cooperation processes foster better information exchange and agreement among various regional actors thereby facilitating effective governance in the regions. Although, due to the differences in the network structure properties,

the northwestern cooperation network has a much stronger impact on the regional decision-making processes than the southern one.

G. SUMMARY OF FINDINGS

The results of the network analysis of the regional cooperation and energy structures in the northwestern and southern regions indicate significant regional differences that have important implications for democratic governance in the regions. The analysis showed that regional cooperation with the EU plays a significant positive role in creating connections among Russian local organizations, NGOs, companies, firms, educational institutions, and provincial governments in both northwestern and southern regions; however, due to the peculiarities of the regional structures, regional cooperation with the EU has a stronger effect on the development of an interconnected regional infrastructure in the northwestern region.

According to the analysis, the northwest region, which has higher level of democratic governance, is embedded in a dense and decentralized network governance structure. On the contrary, southern region happened to have sparsely connected, largely fragmented, and highly centralized regional cooperation structure. Northwestern regional cooperation network showed the prevalence of horizontal modes of decision-making, while southern network happened to be vertically differentiated. The results of the analysis indicate that in the northwestern network, there is a fairly equal distribution of power, influence and control among network participants; therefore, the northwestern network approximates a good network governance model based on self-organization, adaptability, mobility, and collective action. This indicates efficiency in the regional integration processes in the northwestern area.

In the southern cooperation network, public sector actors dominate decision-making and control integration processes occurring in the regions, which significantly impedes information diffusion and resource exchanges in the southern region. High level of centralization of political control over cooperation processes in the southern cooperation structure poses the principal obstacle to greater sub-national regionalism.

Another important difference between the northwestern and the southern regions is that in the northwestern region, regional cooperation network has a much higher level of intersectoral cross-cutting ties, which indicates that the northwestern regional structure is richer in social capital and is also more participatory, open, and democratically legitimate than the southern one. High level of cross-cutting ties in the system also indicates its effectiveness, mobility and adaptivity to evolving complex regional social, economic, and environmental problems.

Additionally, the northwestern network showed higher rate of convergence to consensus than the southern network, indicating that interests, norms and values of different regional actors in the northwestern region coincide better than those of actors in the southern region. Another important finding is that the level of centrality and power in the northwestern network (among other factors) depends on an actor's alliance proactiveness and international competence, which implies that networking capabilities and knowledge of transregional and international environment are important factors determining whether a northwestern actor will get engaged in the regional cooperation infrastructure and become central in it. Therefore, actors in the northwestern region are more motivated and inclined to cooperate with international actors than the southern actors, and most important, already have significant international experience. In the southern region, power and centrality are functions of local factors. This indicates that actors in the southern region are more oriented towards local action arena.

As far as the energy structures are concerned, in the northwestern region, energy network turned out to be underdeveloped, fragmented and decentralized, with no immediate direct effect on the regional policy-making processes. As a contrast, in the southern region, energy network appeared to be denser, much more centralized, and vertically differentiated with a strong (and significantly increasing over time) effect on the regional decision-making processes. The results of the analysis indicate that the tendencies of the Russian energy sector to become more monopolistic and the Russian state to reassert control over energy resources and energy actors are also reflected at the regional level. Big companies (in terms of both size and income) form strategic alliances to dominate energy-related decision-making processes in the regions, and provincial administrations increase their grip of the regional energy sector over time. However, a necessary condition for this is the existence of energy resources and exploration and production opportunities in the region; otherwise, regional energy infrastructure (meaning public sector-energy alliance) will be fragmented and decentralized, like in the northwestern region.

The dimension that was neglected in this analysis is the micro-level of individuals. This aspect was ignored not because it is considered to be of less importance, but because this study has been specifically focused on a comparative assessment of the systemic features of the regional cooperation and energy domains in the northwestern and southern regions of the Russian Federation.

V. DIFFERENCES IN THE REGIONAL COOPERATION AND ENERGY STRUCTURES IN THE NORTHWESTERN AND SOUTHERN REGIONS: REGIONAL SPECIFICS AND IMPLICATIONS FOR DEMOCRATIC GOVERNANCE

A. INTRODUCTION

Interorganizational networks are not by definition ‘democratic’ or ‘undemocratic’, as everything depends on their actual form and functioning, which again depends on the historical and political context in which they emerge and operate (Sorensen and Torfing, 2005). This chapter investigates ethno-cultural, historical, geopolitical, and economic specifics of the northwestern and southern regions that account for the structural and functional differences in the regional cooperation and energy networks. In this effort, it considers internal and external factors shaping regional structures and discusses implications for further development of democratic and effective governance at the sub-national level in the northwestern and southern regions.

This chapter is based on the 34 (17 for each region) in-depth interviews with regional energy sector representatives, public officials, NGO representatives, journalists, economists and political scientists.⁴⁷ The interviews were conducted between June and October 2008 in a semi-structured format, consisting of a set of core questions supplemented by an in-depth discussion about different subjects the respondent was willing to provide further detail about. Each interview focused on the questions related to the particular experience of a respondent’s organization in dealing with the regional cooperation/energy issues, yet went beyond these questions to address broader questions about governance patterns and decision-making processes

⁴⁷ The list of the interviewees and the core questions are attached in the Appendix of this chapter

in the region. All the interviews were taken in the Russian language and were translated into English. Open/axial/core coding method developed by Anselm Strauss was applied to process and codify information contained in the interviews (Strauss, 1997).

The purpose of the interviews was to provide in-depth understanding of the regional peculiarities that explain the differences in the regional cooperation and energy structures and also the mechanisms through which these structures influence democratic governance in the regions. The interviews gave access to greater levels of information and a more complete picture of the regional contexts based on detailed observation about the regional processes and the mechanisms of decision-making at the sub-national level, which quantitative data alone could not provide.

The interviews resulted in a rich set of qualitative data providing general information on the regions and case-specific insights. It is important to note, however, that the interviews go beyond mere description as they were conducted with the aim of contributing to testing the hypothesis about the impact of regional cooperation and energy structures on democratic governance in the regions and they provide the basis for exploring deductively predictions about the relationship between the way the regional cooperation and energy networks are structured and the level of democratic governance in the region. Therefore, the qualitative analysis seeks to evaluate the overall consistency of the interview data with the previous econometric analysis of the longitudinal data and the network analysis.

Threats to validity and reliability of the interview data were addressed through several means. First, I sought to construct a representative sample of respondents: the interviews involved key actors from various sectors of society—including civil society, mass media, business, energy sector, government, and academia—therefore, representing a ‘micro cosmos’

of the regions. Diverse range of respondents enhanced the credibility of the answers. Second, the interviews related to the regional cooperation were conducted with actors who have considerable experience in cooperating with the EU actors at the regional level and energy-related interviews involved prominent regional energy experts; therefore, the respondents were very knowledgeable of the interview subjects. And third, an in-depth interview format allowed for follow-up questions and ensured consistency across the answers provided.

The factors that shape and influence governance patterns in the regions and condition structural composition of the regional cooperation and energy structures can be divided into the four broad interconnected categories:

B. ETHNO-CULTURAL COMPOSITION AND THE STRUCTURE OF SOCIETY

According to respondents, ethnic composition and sub-ethnic elements have a significant direct impact on the regional governance processes and shape regional governance structures. Unlike ethno-culturally homogenous, socially cohesive, and modernized northwestern region, southern region remains a traditional clan-based society. Social transformation and deformation of a traditional society through which Russia passed in pre-medieval and early medieval period, and then under the tsarist regime and the Soviet authority, affected the southern region to an incomparably smaller degree than the other regions. The southern region has exhibited powerful forces of resistance against the abandonment of clan ties and loyalties for the sake of realignment toward a larger state-wide identity and even the processes of industrialization, urbanization, restratification, and forced relocation (under Stalin) have not had a significant impact on the social structure in the Russian south.

Clans in the Russian south are sub-ethnic and their identities are rooted in kinship. The southern clans are hierarchical structures based on common ancestry, territorial unity, social integration (*e.g.* through inter-marriage) and have their own social practices, traditions, and customs. A specific feature of the southern society is strong inter-clan solidarity within ethnicities, but very weak solidarity among ethnicities, which can be explained by historical socio-cultural and geographical factors such as the existence of long-term ethnic rivalries and differences in regional landscape (*e.g.* mountains versus steppe) that led to segmented identities. Although formal national identities have been imposed on the southerners, informal ethnic and clan-based identities persist and are well sustained through knowledge of the family's genealogy, a strong sense of responsibilities and duties related to kingship and links of territorial loyalty. These powerful ties are often disregarded by scholars because of their informal character; however, according to the interviewed regional experts, they provide the basis for political and economic groupings and formation of regional elites in the Russian south.

Clans are the main actors in the regional economy and politics in the southern region. They pervade regional bureaucracy and economics informally, but due to the regional specifics, the formal level matters very little, whereas the informal level matters enormously. Informal relations within a clan are more important than formal rules and regulations. Powerful clans protect their members who violate the formal law from the official prosecution, but severely punish (including assassination) those members who ignore internal informal norms and traditions. There is a well –developed system of incentives and sanctions that maintains the order within a clan. The most important incentive is the promotion to a higher economic or bureaucratic position in the clan hierarchy and, therefore, gaining higher income and prestige in

the region. Clan members that have access to prominent regional positions patronize their kin by giving jobs and promoting people based on the kin ties, but not merit.

According to respondents, southern provinces are stable recipients of the federal donations, and 5 from them are among the 7 poorest subjects of the country, receiving up to 80 % of their budget from the federal center, while the revenues from the regional energy sector and regional businesses end up in the pockets of provincial bureaucrats and regional economic actors tied by informal clan bonds. Basically what happens is that clan elites steal regional assets and divert them to their clan members. In the southern provinces the level of shadow economy is very high. For example, in Dagestan, by different estimates, from 50 up to 70 % of the working population are functioning in the shadow sector. By furthering their interests clans have largely neutralized the effect of individual elites, leadership based on merit, and formal institutions. In the south, provincial bureaucracy parasitizes on grants from the federal center for sustaining regional development, does not have incentives for the necessary deep transformations and resists sensible reforms. Unofficial clan politics and patriarchal linkages hinder social development; complicate the development of democratic institutions in the region and make liberalizing political and economic reforms very difficult as they create informal political and economic rules that are not pluralist, accountable, and equally and fully participatory and representative.

The southern traditions of strong family-patrimonial ties should be respected, supported and encouraged, but when they get transferred to the regional policy-making, they create informal economy, encourage practices of clientelism, nepotism, and bribery, and give rise to corrupt power groups, oligarchs and even mafia-groups in the region. Regional mafia groups are most prominent in the regional oil and gas sector, as it is the most profitable branch of the

regional economy allowing for gaining fast riches. According to various experts, the regional energy sector is largely controlled by the regional bureaucrats, and vice versa, oil and gas magnates linked to public officials by clan ties, are most influential actors in the regional politics. In the southern region it is common that people from oil and gas elites become important public officials and even provincial governors. Energy elites want one of their representatives as governor or major public official to establish close interaction with the regional political elite. And common people who vote for such businessmen generally hope that the oligarch's wealth will help the entire region.

Several experts mentioned that over the recent years, power and control over the regional energy assets became centralized in the hands of a few. Therefore, high level of centralization and vertical differentiation of the regional energy structure can be explained by the clan nature of the southern society, where clan leaders occupy the leading political and economic positions in the region and have access to regional resources; more powerful clans have control over bigger companies and have a chance to dominate the energy sector. For instance, in Kalmykia Republic almost 85 % of the townspeople and more than 90 % of inhabitants of villages identify themselves with this or that clan; three most powerful clans compete for political and economic power in the republic: Torgut, Dervud and a younger Buzav clan constituted by Don Kalmyks. The biggest business in Kalmykia, Kalmneft Oil Company, is controlled by the president of Kalmykia, Kirsan Illumzhinov, from Buzav clan and his people.

Along with inter-clan competition over energy resources, there is an inter-regional competition, when several clans unite to get more access to energy assets; for instance, Elista, Rostov, Krasnodar, and Astrakhan elites managed to obtain control over the biggest energy companies operating in the southern region and also seized control over important southern gas

fields (like Chumakovskoe, Sladkovsko-Morozovskoe, and Temruksko-Ahtarskoe) both by official means- by officially obtaining a stake in a company- and unofficial means, like informal clan ties with the energy actors. The biggest companies operating in the region, Gazprom, Lukoil, and Rosneft, have on their regional boards the members of provincial governments; or directors and senior managers of the regional branches of these companies are tied to provincial public officials by informal clan ties. Therefore, by effectively using administrative leverage, these companies managed to buy shares of many smaller southern energy companies and acquired official access to their internal decision-making processes, or established informal links with the smaller companies through informal clan connections. These companies now have a big say in the regional and even national-level energy policy decision-making, as in many cases national-level decisions regarding southern energy politics and geopolitics of new routes in the south are made in a close consultation with the regional energy sector representatives and officials ties together by formal or informal linkages.

To avoid open confrontation and conflict, powerful southern clans share some of their profits with the rival clans; however, from time to time there are clan clashes or even wars that result in re-division of power and resources. For instance, in Karachaevo-Cherkessia, recent clan rivalry over the ownership of the chemical factory that involved several killings resulted in political crisis, when people blocked the building of provincial administration for several days demanding prosecution and punishment of those in power that were behind the killings.

The clan structure of public and economic authority leads to phenomenal, even by the Russian standards, level of corruption. However, in the southern region corruption is generally not perceived as a negative phenomenon, as in many instances it is commonly viewed as a derivative of clan-based relations. The federal center basically allows southern regional elites to

do whatever they want in exchange for security of the southern borders and suppression of any secessionist tendencies. In general, southern clans do not oppose the boundaries of a state; they seek political and economic resources for the particularistic ends of the group. Regional experts claim that even the appointment of the regional governor by the center under Putin's vertical of power has not and will not change the regional clan-based dynamics, which has not changed for centuries. Putin's vertical of power actually goes back to the Russian tradition of voevodship, when for several centuries governance in Russia was based on voevodas, or feudal lords, who had certain amount of land under their control and provided the state with soldiers and taxes. At present, the power between the federal center and the provinces is, of course, distributed in a more modern and complicated manner, but in many instances it retains features of the old system.

In the southern region, regional governor nominated by the center is a rather nominal figure, as regional elites are in charge of the social, political and economic processes in the region. The formal institutional mechanisms linking public sector and society have been much less significant in the southern region as regional clan elites have full control over the process of distributing resources, jobs, and social benefits. For instance, the Republic of Chechnya (which is in the southern region and is technically under the southern regional governor's authority) is significantly more independent now under the 'pro-Moscow' president Kadyrov than it used to be under the separatist Dudayev. Kadyrov and people from his clan have full control over administering the Republic. In addition, the federal center supplies Chechnya with over a billion dollars in aid annually. Central authorities have stopped to control how this money is spent and are no longer interfering in the process of the allocation and distribution of this money. Therefore, Kadyrov and his team distribute the money in accordance with the traditional patriarchal rules of

the Chechen society and its complex clan structure and tribal hierarchy. Similar situation is occurring in the other southern provinces.

It is crucial to take into account an important peculiarity of power in a traditional society. Separation of powers is the institute that has passed through a long-term evolution and developed naturally in Europe in the course of various rebellions and revolutions. This phenomenon is completely alien to archaic and traditional societies. In a traditional society, the clan leader and his team are perceived as having almost a sacred status and all the other independent branches of authority are automatically perceived as undesirable not only by the ruling elite, but also by the majority of the population. Therefore in ‘posttraditional’ societies (many experts call the southern region a posttraditional society) supervising bodies constituted by clan elites frequently continue having almost unlimited powers. Another important feature of the southern region is that unlike the majority of European peoples that lost tribal ties in the process of social transformation and economic development (including northwestern and central Russia), the majority of the ethnicities in the Russian south retained clan linkages, which penetrated their societies.

There is an interesting phenomenon in the southern region- Don Cossacks- whose democratic potential has not been taken into account by reformers, but under certain conditions could have a positive impact on the development of democratic governance in the region.

The necessity to defend their free lifestyle and protect their settlements from the attacks of Tatars, Mongols and other nomadic tribes that lived in the steppes of southern Russia, forced Cossacks to get organized into a military society with the Common Assembly (‘Kazachiy Krug’) that elected temporary military authorities – ‘atamans’. Different experts describe Cossack society in the early medieval times as a loose federation of independent but interconnected

communities with their own local armies, separate from the neighboring states (*e.g.* Poland, Grand Duchy of Moscow or the Khanate of Crimea) and pursuing independent foreign policy. In the Russian Empire, when in the course of expansion southern lands became part of it, Don Cossacks were given certain privileges in exchange for the protection of the southern borders. Throughout the whole history of Russia, Cossack's main goal was to protect Russian southern frontiers.

Cossack population significantly decreased after the First and the Second World Wars and Stalin's oppressions. Modern Cossacks live in small communities called 'stanitsy' mainly in Rostov, Stavropol, and Krasnodar provinces. Cossacks still have their assembly and a vibrant network of associations, which are predominantly cultural and historical, aimed at preserving Cossack traditions and customs. However, some Cossack communities and their organizations also seek political power. For instance, in the late 1990s, Cossacks became a considerable force in the government of Rostov province.

According to respondents, Cossack society has vibrant democratic nature; however, the main problem is that Cossack culture is very different from that of the other ethnic groups residing in the southern region and Cossacks do not integrate well with other groups. Cossacks are predominantly Slavic and Christian, like the majority of Russians; while other ethnic groups in the southern region are either Turkic or Caucasian, and predominantly Muslim, representing different branches of Islam from mystical Sufi Islam to Wahhabi Islam with the strictest puritan rules and severely enforced standard of conduct. Caucasian and steppe societies are hierarchical and autocratic (except for the Chechen and Ingush, where there are several elderly clan or 'teip' leaders), with the long history of social differentiation into clan princes, clan aristocracy,

freemen and slaves, and chronic struggle for prestige and rank. Cossacks, on the contrary, have historically been a free horizontally structured decentralized society.

Cossack history, customs, traditions, norms and values are part of the common Indo-European heritage and are very different from that of the other ethnic Caucasus or Asian groups in the region. Therefore, Cossacks are mainly concerned with their own prosperity and cultural heritage and preservation of their lifestyle.⁴⁸ Thus in many instances, instead of serving as a connecting link among various ethnic groups, Cossacks add to the segmentation and fragmentation of the southern society and despite their historical freedom and innate democratic nature, often act as another clan in provincial governmental bodies.

Nevertheless, according to different regional experts, municipalities with bigger number of Cossack settlements are more democratic than other municipalities in the southern region. A possible explanation to this phenomenon is that in the areas where Cossack population is significant, Cossack networks help to increase administrative efficiency and responsiveness to local needs. Additionally, for a number of historical and cultural reasons, Cossacks (unlike other ethnic groups in the region) have a holistic vision of the southern region and are more concerned with its cultural and socioeconomic development and geopolitical importance for the Russian Federation. However, according to many respondents, Cossacks alone, no matter how democratic their society is, can not improve governance in the whole region, which is home to a multitude of other groups with their specific culture and their own customs and traditions. Various experts claim that Cossack democratic potential has not been fully realized and provincial politics is still based on ethnic rivalry and clan struggle.

The main problem of the clan-based politics in the southern region nowadays is that it undermines key dimensions of democracy—separation of powers, transparency, accountability,

⁴⁸ According to Maria Chufistova, director of Cossack cultural heritage association

representation, participation, responsiveness and solidarity. Clan connections define the allocation of public resources, and elections in representative bodies of authority, as a rule, are based not on political programs that would be beneficial for every member of society, but on clan principles. This is why southern provinces have the greatest income inequality in the country: provincial clan elites are interested in their own self-preservation and prosperity and, therefore, get rich for the sake of the rest of the population. So, the opportunity structure in the southern region is very hierarchical and highly unequal. This is reflected in the way regional cooperation with the EU is structured. Opportunity to participate in regional cooperation partnerships is restricted in the southern region as regional elites perceive regional cooperation as another financial opportunity and try to direct the resources offered by it to their clan members. Provincial bureaucracies constituted by powerful clan elites control cooperation processes and tend to use regional cooperation as a means to further their interests rather than to solve complex regional problems.

For instance, in Adygea republic, UTK telecom company, which had stronger ties with provincial bureaucrats in the communication and information department, ousted ATC Company from the EU project aimed at strengthening accessibility and connectivity of intra- regional information and communication links in the framework of the Black Sea Basin Joint Operational Program, although the ATC Company had better knowledge of the region and was better equipped to take part in the project.⁴⁹

As another example, Cherkessk environmental NGO was supposed to participate in the project aimed at building Trans Caucasus transportation system connecting Cherkessk with Adler. However, Cherkessk administration and Karachaevo-Cherkessian Society for the Promotion of Motoring and Road Improvement and UPRDOR 'Karachaevo-Cherkessk' linked to

⁴⁹ According to Oxana Svetlitsina, representative of ACT telecommunications company

Cherkessk administration by clan ties blocked the environmental NGO from full participation in the project and distributed among themselves resources meant for ecological expertise and environmental analysis.

There is evidence that southern administrations interfere a lot in the university exchange programs with the European Union and favor those educational institutions that have direct ties with them. Due to corruption rooted in clan-based structure of the southern region, the joint project between the Russian southern region and European Black Sea countries supported by the Black Sea Trade and Development Bank (BSTDB) aimed at the development of sea port terminals and facilitation and enhancement of sea trade routes did not bring expected results on time and work planned for two years extended for four years with extra financial support from the federal center and the Russian development bank.

Clan-based structure of society in the southern region leads to the lack of interorganizational networking, as different clans occupy different industries and areas of economy, and public and social sector and are not interested in collaboration. Because of their noncollaborative nature, clan-based elements neutralize attempts to develop regional synergy designed by the authors of the Black Sea Synergy initiative.

Clans effectively eliminate nonclan forms of association and participation by the mechanism of inclusion of members and exclusion of non-members. In the southern region, the lack of solidarity and collaboration among clans and existing regional cleavages prevent the achievement of consensus in the society and undermine a sense of citizenship. The potency of sub-ethnic loyalties hinders region-wide and state-wide consensus building and political compromise that are necessary for liberal democracy to work. Regional clan elites use their clans to mobilize social support for their agenda and are not interested in effective functioning of

organizations that would have broader regional constituencies. This is why civil society is much more underdeveloped in the southern region compared to the other regions of Russia. Additionally, the EU assistance programs and opportunities provided by the regional cooperation have somewhat paradoxical effects on the development of civil society in the southern region as despite their networking character they produce distinct civic elites in the region well connected with the provincial bureaucracies, but without a visible constituency and dense horizontal linkages among themselves.

Another problem of the regional cooperation programs is that those initiatives that are designed by the European actors (either EU bodies or EU member states, regions of member states, or individual actors) usually do not take into account complex southern ethno-cultural specifics and clan-based governance; therefore, exactly the same program has very different results in the southern region than in the northwestern one. For instance, an EU-funded TACIS project aimed at promoting health education in Russian schools in Pskov province (northwestern region) had a lot of follow-up projects and schools in the region even established inter-school health consultation clinic, while in Rostov province (southern region) the project had problems due to administrative barriers (the recipients had difficulty in receiving financial support on time because of the interference of public officials) and did not have significant follow up initiatives. Reciprocating any cooperative measure is important for generating further trust in the regional cooperation system.

Additionally, there is also a problem of the regional cooperation in the southern region, which cooperation experts call a 'selection problem'. By selection problem they mean a phenomenon that due to the lack of experience in dealing with the southern actors, European partners often choose the actors that they have some knowledge of from previous projects.

Therefore, in many cases, same actors participate in new initiatives, while new actors do not get involved, and regional networks do not develop as fast as they should.

A good way to strengthen and consolidate southern regional networks would be to link the weaker vulnerable regional actors (especially from different ethnic and clan groups) by involving them in various partnerships and initiatives and creating connections among them. This would develop cohesion, increase social capital and build consensus in the region as when individuals belonging to different groups with diverse goals and members have a chance to communicate and engage in cooperative activities, their attitudes will tend to moderate as a result of group interaction and cross-pressures. However, without thorough knowledge of the regional specifics and extensive experience in dealing with different actors coming from different ethnic and clan constituents, it will not be possible for the European actors interested in the development of regional cooperation to create a cohesive developed regional network structure.

Several regional cooperation experts believe that due to the collaborative nature of the regional cooperation processes, various regional actors are bound to develop interorganizational linkages, although this might take much more time and effort than in the northwestern region. Regional cooperation with the EU played an important role in establishing connections between human rights NGOs in the southern region and even led to political changes in Rostov province where public officials had to engage in intense dialogue with Ekologika, Youth Human Rights Movement and other NGOs empowered by the regional cooperation partnerships and simplify NGO registration procedures and allow several new NGOs to register despite the recent law that created an overly complicated registration procedure for NGOs and permitted government officials to deny registration arbitrarily.

At the same time, other experts argue that for consistent change and strong effect on the regional decision-making processes, regional cooperation influence should be systematic. According to them, due to the regional ethnic and clan specifics, southern regional cooperation system will most likely remain centralized around regional elites (as it is their innate feature to control any activity occurring in the region), even if different regional actors engage in a higher level of cooperation. Because of the rigid clan-based structure and high segmentation of society, and historically non-European, autocratic, hierarchical and highly centralized forms of governance, the southern region is much less prone to European influences; therefore, the effect of the regional cooperation with the EU on internal governance processes will anyways be much smaller than in the northwestern region.

As far as the northwestern region is concerned, the society of Novgorod-the-Great, which later became Novgorod Republic and then the northwestern region of Russia, developed along the lines of other Northern European nations. According to regional experts, the northwestern region represents a cohesive entity held together horizontally by shared history, culture, and language. It progressed away from traditional ties toward rational and secular relations and civil ties of the modern society. In the northwestern provinces common regional interest is placed above sectional pressures and segmented identities.

At present, the northwestern region has much bigger number of nongovernmental organizations and associations of various kinds than any other region of Russia. The most comprehensive employers' associations of Russia, the Russian Union of Industrial Employers and Entrepreneurs (RSPP, *Rossiskii soyuz promyshlennikov i predprinimatelei*) and the Federation of Producers of Goods (*Federatsiya tovaroproizvoditelei*) have the biggest number of members and are most active in the northwestern region.

According to the anonymous senior manager of Sintal Corporation that has branches both in the northwestern and southern regions, while in the southern region certain amount of company's resources goes to the bribery of public officials due to excessive official and unofficial administrative barriers, in the northwestern region public officials do not interfere in the company's business and on the contrary, cooperate with the company's social department by providing information about regional nongovernmental organizations and associations and helping to link the company with organizations representing most deprived sectors of the northwestern society in the framework of the company's corporate social responsibility project.

According to Charities Aid Foundation Russia representatives, there is the biggest number of corporate social responsibility programs in the northwestern region. The northwestern region has the most dense and developed network of partnerships between civil society and private sector. Despite 2005 unfriendly NGO legislation which gave bureaucrats the authority to use several administrative measures against civil society organizations, nongovernmental organizations in the northwestern region do not have registration problems and other administrative hurdles like in the other regions of Russia and foreign NGOs are not pressed by provincial registration authorities though the new law gave the authorities the possibility to make arbitrary decisions in respect to foreign civil society organizations.

The northwestern region is an entity with powerful foreign presence, as many foreign NGOs, especially European, are located in the region and many choose to register in the northwestern region to avoid possible administrative difficulties. The region does not share common problems of the modern civil society in the other regions: selective implementation of new NGO law (treatment of some NGOs as 'good' and some as 'bad'), restriction of activities that cause disruption to the functioning of many small NGOs, lack of access to different sources

of funding, uncertainty in financial resources, lack of interaction inside the civil society sector, and lack of effective interaction between the civil society and the public sector.

For instance, Murmansk administration has been very accessible and cooperative with civil society organizations in respect to regional environmental issues. It has been engaged in an environmental policy dialogue with the neighboring Petrozavodsk administration, Norwegian and Finnish authorities and local and regional NGOs (such as Russian-Norwegian Cleaner Production Centre), and as an outcome, important regional waste management program was established and regulations concerning cleaner production were adopted. Additionally, several important regional public events concerning regional environmental problems were held in the region.

According to different experts, in the northwestern region, public authorities often gather information about complex regional issues from inter-regional, regional and local civil society organizations and involve them in decision-making processes. Such decentralization and participation build social capital and strengthen governance in the region by fostering civic participation in decision making, providing feedback from the northwestern residents to public officials, and mediating dialogue between the public sector and various groups of the northwestern society.

Intense interaction with European actors in the northwestern region is very important, as it creates a common geopolitical space with shared norms and values and serves as a mechanism of the infusion of European norms and standards in the Russian northwestern social, political, and economic space. Close cooperation with European partners in the northwestern region sometimes has important consequences for the whole country; for instance, regional environmental processes in the northwestern region have had a major impact on the development

of environmental legislation at the national level and the adoption of the EU environmental standards.

A recent in-depth survey project of the Social Institute and several nongovernmental organizations shows that more than 70% of NGO leaders interviewed in the northwestern region expressed their trust in provincial officials compared to only about 30% in the southern region. Due to historical peculiarities that led to the ethno-cultural cohesiveness of the northwestern society and close cooperation and networking with European actors, civil society sector is much more developed in the northwestern region than in the other regions of Russia and it has grown significantly over the past decade.

According to different experts and political scientists, nongovernmental sector in Russia is neither ‘perestroika’ phenomenon, nor one imported from the European democracies, though common European past is considered to be an important factor conditioning high level of civic activism and social cohesion in the region. Charity, philanthropy, mutual help, group activity and voluntarism have been long a part of the northwestern (and in general Russian) history and now are revived. Novgorod-the-Great, then the Republic of Novgorod, and then Novgorod Gubernia and the northwestern region of Russia had a well developed network of civic organizations: numerous ‘gildii’ (guilds), voluntary associations of tradesmen or craftsmen formed to protect mutual interests and maintain standards of workmanship and ethical conduct, and also different boyar charities, unions of rural people, and other associative networks.

In the tsarist Russia, even given more autocratic forms of governance, there was a system of municipal self-government and thousands of charity organizations and voluntary associations functioned in different regions, and in the 19th century more than seven million people received aid and services through such organizations every year. Though in the framework of the Soviet

Union it is not possible to treat civil society as an independent phenomenon, a determinate structure or a network of organizations with certain membership, civic interaction in the Russian society continued although through restricted forms such as unions of workers, artificially constructed forms such as pioneer unions, or informal gatherings and meetings. But most important, social capital was preserved in the form of community norms, customs, and traditions.

In the early post-Soviet times and throughout the 1990s there was a boom in number of new NGOs, associations, and unions. The northwestern region had the most rapid growth in the number of civil society organizations and at present, according to different experts, it has more advanced and vibrant civil society than any other region with almost every third northwesterner being a member of an association. This can be explained by the legacy of old networks and societal peculiarities of the northwestern region such as ethno-cultural homogeneity, high degree of social cohesion and shared culture and history that determine the structure of current and new connections among northwestern regional actors.

Dense connections between the northwestern actors and the European actors are also explained by the fact that the northwestern region has common ethno-cultural past with the Northern European countries in terms common identity shared by Scandinavian, Baltic, Slavic, and Finnic people. Even though Finnic people have a Uralic ethnic origin and language, they migrated to the European part of the continent from the East long time ago; therefore, they share common history with the Balto-Slavs and the Nordic peoples. The northwestern republic of Karelia, where some part of the population is of Karelian (Finnic sub-ethnicity), Baltic, Finnic, Norwegian and Swedish origin, is an important cultural bridge between the northwestern Russia and Northern Europe.

Karelian society is very integrated and clavicized; however, there is a multitude of historical and cultural associations and organizations aimed at the preservation and development of Finno-Ugric cultural heritage and languages. Unlike in the southern region, where ethno-cultural organizations are concerned with a particular ethnic group and do not collaborate with other organizations, in Karelia, ethno-cultural organizations effectively cooperate with other civil society actors in the Republic and in general in the northwestern region. For instance, Trias youth organization conducts active work in the field of implementation of ethno-cultural and ethno-social rights of the Karelian people. Lyydiläine organization issues specialized newspaper in Lyddik dialect of Karelian language. Both organizations closely cooperate with private-sector organizations, Petrozadodsk state university, St Petersburg Times Agency, North-West Association, human rights NGOs, and provincial authorities. One of the important outcomes of this collaboration has been the restoration of the public center and the creation of a local museum and a cultural forum in the village of Tunguda of Byelomorsk.

The Northwestern's civil society sector receives much bigger number of donations from commercial organizations, municipal and regional budgets and from foreign organizations than civil society sector in any other region. Additionally, various events with participation of regional business actors, NGOs, and public officials such as open public forums, regional conferences and public events are quite common in the northwestern region. Different experts speak about the existence of a developed public-private-civic partnership in the region.

One of the main problems of the Russian modern social sector is the lack of public trust in civil society institutions. However, this is not the case in the northwestern region, as in the northwestern region civil society organizations seem to be recognized as important actors of social life and mediating mechanisms between society, business and public officials. Different

respondents speak about high degree of trust, reciprocity and cooperation in the northwestern region. Norms of trust are generated by developed social networks and organizations and improve the efficiency of governance in the region by coordinated actions. Additionally, according to various regional experts, interorganizational networking in the northwestern region provides a check on public and private actors through several mechanisms, including legal protection, monitoring, anti-corruption and accountability programs and programs increasing responsiveness of regional officials to regional and local needs, mobilizing support for collective action and advocacy campaigns, and promoting civic education and responsible citizenry.

At the same time, the northwestern region remains one of the most economically developed regions (despite the lack of oil and gas activity that forms the basis of modern Russian economy) with the highest standards of living and the most equal income distribution. It is argued that the success of the northwestern region is rooted in its history as a democratic polity and a flourishing center of trade and culture, with high level of social cohesiveness and active civic infrastructure. Various experts claim that the northwestern region has the highest level of social capital in the country, which facilitates economic and social relationships in the region and plays major role in the economic performance of the region and efficiency of the northwestern political institutions.

According to different experts, northwesterners are well aware of the fact that Russia started from the northwestern region, Novgorod-the-Great, economically and culturally flourishing democratic entity with advanced literacy and developed social infrastructure. And this awareness has a very symbolic meaning for the northwestern people that holds the region together and conditions its civic vibrancy and cohesiveness, and is also reflected in the patterns of governance.

Therefore, the form and the functioning of the regional cooperation and energy networks may be explained by the ethno-cultural context in which they emerge and operate. Thus in the multiethnic, multireligious and highly segmented southern region with its patriarchal culture, clan-based politics, ethnic tensions, underdeveloped civil society and rampant corruption, democratic concerns hardly play any role in the regional decision-making processes and regional cooperation with the EU is controlled by regional bureaucrats, and therefore, is very segmented and vertically differentiated, while networks between energy actors and public officials are dense and centralized.

At the same time in a stable, socially cohesive, more ethno-culturally homogeneous, yet pluralistic northwestern region, democratic concerns play much bigger role in governance processes and governance networks are promoted as a means of enhancing efficient and participatory governance. Therefore, the northwestern regional cooperation network is horizontal, dense, cohesive, and decentralized offering the prospect for the development of democratic network governance, while the network between public officials and energy actors is sparse, decentralized and ineffective in terms of its influence on the regional decision-making processes.

C. HISTORICAL PATH-DEPENDENCE

Different regional experts argue that historical path-dependence is an important factor that predetermines, shapes and influences regional cooperation and energy structures. According to regional historians and culturologists, due to the fact that Russia is not a homogeneous state as it incorporated different lands and peoples in the south and in the east all the way to the Pacific Ocean in the course of the expansion of the Russian Empire, the subconscious identity of the modern Russian culture balances among these vast differences and a collapse of the system or a

crisis usually activates historically preceding structures. The collapse of the Soviet Union activated such structures. Southern region became turbulent with former ethnic tensions and governance problems (Chechnya as the most vivid example), while the northwestern region quickly turned back to its European past. Central region governed by Moscow followed its historical centralization patterns, and Siberia and the Far East remained karmically neutral and contemplating in their Buddhist and Shamanist tradition. Regional experts claim that historical legacy is extremely important in explaining regional differences and the differences in the form and functioning of the regional governance structures.

After the collapse of the Soviet Union, despite the lack of oil and gas resources that were the major attraction for foreign investment, the northwestern region attracted a large amount of foreign investment and had a dramatic economic and political success. According to different regional experts, northwestern provincial governments have been reliable in delivering public services, cooperated extensively with private and civil society actors and responded quickly to northwestern residents' needs and demands.

One of the main reasons why the northwestern regional elites have been successful is because they managed to formulate reform as a revival of the norms and values of democratic and prosperous Novgorod Republic, which created an important bridge and an orienteer in the post-Soviet vacuum, appealed to the norms and identity of the northwestern community, helped to gain public support for reforms, and generated trust and confidence in public authorities. For instance, in the northwestern region, official rhetoric has been centered on the fact that in the medieval times the Republic gained its prosperity because of trade, democratic governance, and cooperation with European partners, and the idea that the same is very relevant for the present-day northwestern region. Therefore, shortly after the collapse of the Soviet Union the region

engaged in expanding trade, attracting foreign investment, strengthening local self-government and public-private-civic cooperation, and concluding multiple cooperation projects, initiatives, and partnerships with European actors.

Regional experts claim that according to the federal local self-government act of 1995, all subjects of the Russian Federation are divided into ‘raioni’, smaller units, equivalent to districts. Due to historical reasons there is a broad spectrum of different local administrations or councils, such as village councils, below the town and district administration level. Among all the Russian regions, the northwestern republic of Karelia is considered to be a forerunner in developing local self-government, and then follow the other northwestern provinces. According to different regional experts, effective local self-government increased administrative efficiency and raised the level of democracy in the northwestern region.

Northwestern public officials have been using the cultural image of the democratic Novgorod Republic extensively. For instance, the governor of Novgorod province (which used to occupy all the lands of the northwestern region and now is only part of it), Mikhail Prusak’s strategy was to stimulate the use of cultural symbols that were important during Novgorod’s medieval history. For instance, a popular progressive newspaper *Veche*, named after the medieval Republic’s assembly, was launched in the province. Regional media have also been involved in supporting Novgorodian cultural continuity by fostering public awareness of the region’s prosperous and democratic past and historical conflict with Moscow. Ironically, by using its symbolic opposition to Moscow, the northwestern region was quickly united both in terms of regional elites and broader public and was quite successful in the early post-Soviet period, when the rest of the country was in economic shock and political chaos.

Respondents mention that after the collapse of the Soviet Union, some regions acquired special treatment in respect to having an opportunity to engage in international trade, attract foreign investment, make contacts with foreign actors and engage in international and regional cooperation, which was laid down in bilateral agreements between the government and regional administrations. All the provinces at the Nordic border have such agreements in force. The Kaliningrad agreement, signed in 1996, forms the basis for an economic free zone with the European Union. The majority of the southern provinces, especially the southern republics (*e.g.* Kalmylia, Adygeya) also have such arrangements that allow them to engage in cooperation projects, programs, and initiatives with foreign partners as the southern region has a status of the 'border region'.

While after the collapse of the Soviet Union, the northwestern region rushed to implement economic and administrative reforms and engage in intense cooperation with different European actors, the southern region was more preoccupied with internal ethnic rivalries and struggle for power and in a few years control and power over the regional political and economic affairs was divided between the elites of a few most powerful clans.

In the northwestern region, right after the fall of the Soviet system, big North-West Association was founded by the representatives of executive and legislative authorities of the northwestern provinces. The main goal of the Association is to promote effective interaction among the northwestern provinces and create conditions for interregional integration and social and economic development. The objectives defined by the Association concern such areas as industry, agriculture, transport, energy, social sector and other. The Association's representatives specify them as follows: development and implementation of regional programs and projects with foreign and domestic capital participation (especially regional cooperation with the EU and

Nordic countries), coordination of activities in the northwestern region; creation of the necessary conditions for foreign investors with regard to the interests of the Association's members; labor market research; personnel training, accommodation of the population coming from other regions of the country, and the establishment of mutually beneficial economic relations with other regions, republics and districts.⁵⁰ The Association includes representatives from the regions and countries neighboring the northwestern region. It has been extremely active in connecting Russian northwestern social, economic, public, education and mass media actors with European actors and helped to establish all sorts of cooperation projects and partnerships. The Association also played an important role in the major interregional cooperation partnerships, such as Euro-Russia development program aimed at improving the investment conditions and networking of companies across the border between Russia, Finland and Sweden as private-public cooperation through investment projects.

Many other large-scale initiatives were launched by the northwestern authorities and social and private actors. For instance, PRIOR North-West is a northwestern regional initiative aimed at the facilitation and development of an Information Society in northwestern Russia through building a partnership between the participants of the e-development process: government, business, civil society, research and education community, donors and investors. The initiative is a network of professional contacts and a venue for the exchange of professional experience and expertise, and dissemination of information in ICT sphere.⁵¹

⁵⁰ For more information on the association, see report on the northwestern Russia, available at <http://www.stockholmregion.org/website1/1.0.1.0/479/Northwest%20Russia%20Facts%20and%20Events%20w%2006%202008.pdf>

⁵¹ For more information on the PRIOR North-West initiative, see http://www.isca-speech.org/archive/specom_04/spc4_603.pdf

PRIOR North-West is closely linked to the EU Programs of e-Development targeted at northwestern Russia: 'E-Karelia', 'E-Skills for Russian SMEs', 'New Information Society Indicators for Russia', 'Development of Internet Based Interactive Government-to-Business Services in the North-West of Russia'. PRIOR North-West also took active part in the formation of an international consortium of St. Petersburg and Finnish companies and organizations interested in cooperation. The consortium was formed in the framework of the Northern Dimension ICT Development Network.

Therefore, when the EU came up with the Northern Dimension policy in 1998, there had already existed a developed network of numerous partnerships, projects, and initiatives between the Russian northwestern and European actors. Thus, according to respondents, the Northern Dimension was not an innovative policy initiative; it rather aimed at strengthening already existing processes and providing more resources for already established cooperation.

Intense integration of the northwestern region with European regions and countries can be explained by historical path-dependence. According to various regional experts, common history and geographic closeness to Nordic and other European states predetermined the openness of the northwestern region to European influences and made it seek partnerships and cooperation initiatives with European actors. Both European and northwestern actors have been very proactive in concluding alliances and carrying out different projects with each other.

According to Andrey Bogdanov, the leader of the Democratic Party of Russia (that proposed a Russian referendum for joining the EU), and candidate for the 2008 presidential elections, the northwestern region did not have any other option, but to choose its historical European trajectory. He calls it "historical Nordic democratic gravity of the region".

As far as the southern region is concerned, the networks between southern and European actors have always been very sparse, segmented and underdeveloped. Historically, the southern region did not have a lot of interconnections with European states for a number of reasons extensively discussed in the third chapter of this dissertation. In comparison with the northwestern region that originated from the democratic Novgorod Republic, was influenced by its Nordic neighbors and for a long period of time was well integrated in European inter-regional and international structures, the southern region was initially shaped by a multitude of different ethnic constituents and has been influenced by different civilizations, cultures and administrative systems. Thus this historical legacy factor is important in interpreting the current regional cooperation and energy structures.

With the EU's expansion to the east and to the south, to the Black Sea, the southern region became more engaged in EU-related initiatives, however, the level of networking and collaboration still leaves much to be desired. The EU's Black Sea Synergy initiative is an important resource that brought new opportunities to both the EU and southern actors; however, according to the regional experts, sub-national integration is more a bottom-up process than a top-down policy and there should be motivation and interest on both sides for it to function properly and to be used effectively. So far, the EU actors have been quite cautious and modest in establishing partnerships with southern actors. At the same time, southern actors (in general) have not been very active in pursuing closer relations with the EU actors either.

After the collapse of the Soviet Union, Europe-oriented northwestern region took its historical past as an orienteer for economic and administrative reforms, developed interorganizational networking, and established close connections and partnerships with its European neighbors, which resulted in vibrant regional cooperation networks, and the southern

region with its complex ethnic and social structure was preoccupied with its internal problems and instead of conducting the needed reforms and engaging in the regional cooperation with European actors, relied on its vast energy resources and engaged in power struggle over control over the regional energy sector, which resulted in dense and developed energy networks, but segmented and underdeveloped regional cooperation networks. It is also important to note that because of the common history, European actors have been more eager to engage in intense cooperation with the Russian northwestern actors than with the southern ones.

D. GEOPOLITICAL FACTOR

According to different respondents, geopolitical location of the region has important implications for its development and is a significant factor in explaining differences in the shape and functioning of regional governance structures. The northwestern region is located in the northwestern Russia and shares common neighborhood with Finland, Sweden, Norway, and Baltic Countries (Estonia, Latvia and Lithuania) to the north and Poland, Byelorussia, Germany and Denmark to the west. Therefore, the region's foreign policy is oriented towards Europe, and European actors are the main foreign actors involved in the internal affairs of the region.

At the same time, the southern region's neighborhood is represented by a variety of different actors: South Caucasus Georgia and Azerbaijan, Central Asian Kazakhstan, European Ukraine, Greece, Romania, and Bulgaria, and Turkey and Iran. The main Eurasian transportation lines go through the southern region to Turkey and Iran. All actors enumerated above are interested in the southern region, as it is the center of the major inter-regional and international transportation systems, is very rich in resources, and at the same time occupies a strategic

position in respect to the transfer of the Caspian and Central Asian oil and gas to Europe. Figure 38 displays geopolitical location of the region in respect to Caspian and Central Asian energy.

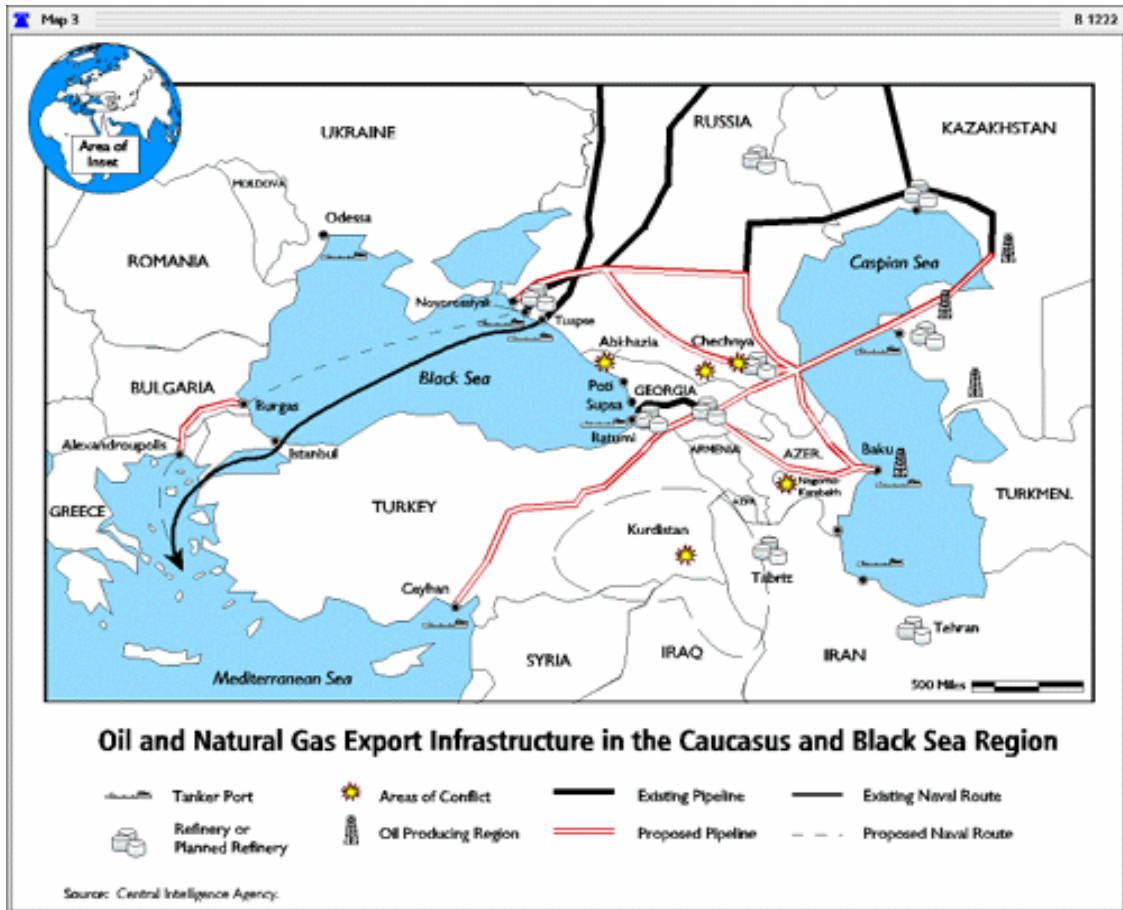


Figure 38: Russian southern region: geopolitics of energy routes

It is also important to mention that due to the region's geostrategic location, besides countries that share common neighborhood with it, other important international actors have their vested interests in the southern region: all the European countries that receive oil and gas through the Russian southern routes, and also the US that is heavily involved in the geopolitics of Caspian and Central Asian energy. Therefore, the southern region is being influenced by a

very heterogeneous group of actors and is at the very center of all sorts of geopolitical games and rivalries based on the energy issue. For instance, according to southern respondents, recent war between Russia and Georgia is well connected with the geopolitics of energy routes in the region as the EU and US are pursuing alternative transportation lines that would go through Georgia, which (according to respondents) was used by Georgia as a leverage to solve its territorial problems. Representatives of the Transneft Energy Company operating in the southern region believe that the EU and the US were partially involved in the conflict as they are extremely interested in the restoration of the Georgian territorial integrity as Abkhazia, one of the Georgian break-away provinces, is a convenient location for the possible energy transportation lines.

According to different respondents, Southern and Eastern European states are becoming more interested in the southern region because of the new energy routes such as South Stream, which will bring energy from the southern region to Greece, Bulgaria, Serbia, and also Austria and other EU countries. By 2015 the southern region is supposed to be involved in exporting about 130 million tons of oil via the new Black Sea-Caspian infrastructure (compared to 70 million tons via Nord Stream that will bring Russian energy directly to Germany).

According to different regional experts, an important factor in explaining the differences in the regional cooperation structures is the EU's motivation. They argue that while in the northwestern region the main driving force of the regional cooperation with the EU is genuine interest of European countries, institutions, and actors in the regional integration with the northwestern region and economic, democratic and social development of the region due to common history and culture, in the southern region the main force that drives the EU institutions and countries closer to the southern region and the main motivation behind the Black Sea Synergy regional cooperation is energy (both resources of the region and its transportation

capacity and facilities), though on paper regional cooperation in the Black Sea area is all about democracy building. Respondents mention that despite the fact that the main declared goals of both the EU Northern Dimension and the Black Sea Synergy are fostering democratization and improving governance in the Russian northwestern and the Black Sea regions, in the northwestern region there are much more cooperation initiatives and programs between different regional actors that result in vibrant interorganizational networking, promote and support democratization and strengthen good governance. This can be explained by the fact that in the northwestern region, regional cooperation is based on the natural regional processes rooted in the common past and every initiative involves a multitude of different regional actors at different levels, while in the southern region, it is a more recent and more an EU sponsored and designed initiative, access to which is quite restricted due to the regional specifics. Regional experts argue that in the northwestern region, the majority of cooperation projects are between the northwestern region and the neighboring countries and the regions of the neighboring countries, and the EU- assistance programs are a complementary resource, but not the main one; at the same time, in the southern region the majority of cooperation projects are sponsored by the EU.

To check if this has any connection to reality, I conducted an analysis aimed at calculating the percentage of initiatives/programs/projects in the northwestern and the southern regions that originated from non-Russian actors (Russian actors and authorities co-sponsor regional cooperation programs, especially in the northwestern region) from 1999 to 2006. Table 29 displays the results of the analysis.

Table 29: Non-Russian initiators of cooperation projects

Actors/ Northern Dimension	Projects 1999-2006
EU Commission	10%
Regional organizations	13%
Finland	23%
Sweden	10%
Baltic Countries	17%
Germany	15%
Denmark	5%
Other	7%
Actors/ Black Sea Synergy	Projects 1999-2006
EU Commission	69%
Regional organizations	3%
Greece	9%
Bulgaria	7%
Romania	4%
Other	8%

As the results of the analysis indicate, the majority of non-Russian initiators of cooperation projects in the northwestern region have been actors coming from the neighboring countries. Actors from Finland, Sweden, Germany and Baltic countries have been the most important actors in the northwestern regional cooperation processes. EU assistance programs account for only 10% of all the projects indicating that besides programs designed and sponsored by the EU, there is a very active collaboration among the regional actors in the northwestern region.

At the same time, in the southern region, the EU programs account for the majority of cooperation initiatives. Besides the EU institutions, the main actors in the regional cooperation in the southern region are actors coming from Greece, Bulgaria and Romania; however, compared to the shares of projects launched by actors coming from the EU member-states in the northwestern region, it is clear that Greek, Bulgarian and Romanian actors are not as proactive as

they could be. However, given the fact that Greece is further away from the southern region than Bulgaria and Romania, its involvement is rather significant. Respondents explain it by the fact that Greece conducts many archeological and cultural projects in Krasnodar and Rostov provinces, where its northern ancient cities were located during classical times, and where significant Greek Diaspora is currently located. As far as Bulgaria and Romania are concerned, regional experts believe that being new countries in the EU, they are currently more concerned with their internal developments and cooperate with Russia more at the national level rather than at the regional level.

Additionally, several regional experts mentioned the fact that in the Northern Dimension, all the countries involved in the regional cooperation with the northwestern region are either democratic and most developed EU northern countries or also democratic and developed non-EU Norway and Island. At the same time, regional cooperation in the Black Sea area (besides Russian southern region and the EU's Greece, Romania, and Bulgaria) involves a variety of countries that are still countries-in-transition and are not very advanced in terms of democracy – Turkey, Ukraine, Georgia, Armenia, and Azerbaijan. According to respondents, this also explains the differences in the regional integration patterns and the differences in the effects of regional cooperation on democratic governance between the northwestern and the southern regions. By interacting with the northern European countries that are more advanced both in terms of democracy and economy, the northwestern region follows a certain policy-learning model. At the same time, the southern region is interacting with diverse actors and the effects of the interaction with the EU are not as strong as in the northwestern region, as they are mitigated by influences coming from other actors that are not much more democratic and economically developed than the Russian southern actors.

It is also important to note that the share of cooperation projects launched by the regional organizations in the northwestern region is higher than in the southern region. Even if we take a look at the number and the variety of various regional organizations in the northwestern region and compare them to the southern region, it becomes clear that the northwestern region has much more developed regional collaboration structures. Table 30 reports regional organizations in the North-West and the Black Sea area.

Table 30: Regional organizations

Regional organizations/northwest	Regional organizations/south
Council of the Baltic Sea States (CBSS)	Black Sea Economic Cooperation (BSEC)
Barents Euro Arctic Council (BEAC)	Black Sea Forum for Partnership and Dialogue (BSF) (Russia is not a member)
Arctic Council (AC)	Community for Democratic Choice (Russia is not a member)
Nordic Council of Ministers (NCM)	
Nordic Environment Finance Corporation (NEFCO)	
Nordic Investment Bank	
Nordic Project Fund (NOPEF)	

It is important to note that Russia is not a member of the Black Sea Forum for Partnership and Dialogue and Community for Democratic Choice. Although Russia is an indispensable actor in the Black Sea area, these organizations are mainly focused on the Caucasus countries (Georgia in particular) and Ukraine. Russia is frequently not included/invited in EU's initiatives in the Black Sea area. In some intergovernmental partnerships it is Russia's choice not to participate—like in the Environmental Collaboration for the Black Sea, initially designed for Georgia, Moldova, and Ukraine. Southern respondents claim that cooperation in the Black Sea area is very politicized and in many cases the EU's approach is 'divide and conquer', which does not help to

improve relations between the Black Sea states and hinders the development of democratic governance in the Black Sea region.

It is also important to mention that the active members of both the Northern Dimension and the Black Sea Synergy are different international financial institutions such as the European Bank for Reconstruction and Development (ERBD) and the European Investment Bank (EIB).

The Northern Dimension, besides its advanced networking and developed regional structures has also developed a very interesting phenomenon- Euroregions -areas of enhanced political, administrative, and economic cooperation between certain regions of neighboring countries. According to respondents, the Euroregions in the Northern Dimension also play an important role in enhancing the flow of information and connectedness among stakeholders in different regions. At present, there are nine such Euroregions between North-West Russia and the regions of the neighboring European countries, which often overlap (the figure displaying all the existing EU-Russia Euroregions can be found in Chapter II of this dissertation).

According to regional experts, Russian regions involved in the Euroregions benefit immensely in terms of fast development of trade and attraction of foreign investment, development of common transportation systems that foster economic development, and facilitated social cross-border exchanges.

Besides pure material rewards, regional experts mentioned socialization factor as Russian actors get socialized into the liberal democratic norms of the EU in the process of their interactions with European actors. Such interorganizational networking in many instances leads to the acquisition of European administrative and business culture by the Russian northwestern actors.

As far as the EU side is concerned, it benefits from a more effective use of funds, because the EU programs are better coordinated at the regional and local level through Euroregions. Additionally, the EU benefits from obtaining desired outcomes from the regional projects and programs, as effective coordination of programs increases their efficiency. According to respondents, the main goals of the EU in respect to regional cooperation in the northwestern region are creating stability and democratic, economic and social development along its borders.

Several respondents mentioned that the administrative organization of the Euroregions, that is usually represented by an Executive Committee that includes a variety of representatives both from the Russian side (regional and local) and the neighboring region of the EU member state, has been very efficient in distributing the EU INTERREG and TACIS funds among the regional actors and linking various European and Russian local actors by cross-border initiatives. In addition, according to respondents, the Euroregion's Committees have been extremely successful in attracting private sector investment to various regional development projects.

Among the concrete results of such intense cross-border cooperation, regional cooperation specialists mentioned a facilitated visa regime, a developed network of Tourism Information Centers and increased people-to-people contacts and exchanges across the borders, a dense network of modern border-crossing points, common transportation systems, dense and developed network of NGOs, developed local self-government, organization of special councils where local and regional residents can discuss important local and regional issues with the representatives of the Euroregions' Executive Committees, an established calendar of common regional cultural, social, sport, and economic events, and increased flows of trade and investment across the borders. According to respondents, only within the framework of the Euroregion 'Baltic', more than 1000 Polish-Swedish-Dutch-Lithuanian-Russian programs, projects, and

initiatives have been implemented for the last five years, in which at least 70 thousand people from both sides of the border have taken part.

Euroregions also help to attract innovative production facilities to the Russian northwestern region and develop a variety of businesses in the service sector thereby developing and diversifying economy of the northwestern region. Hundreds of joint ventures with the Finnish, Baltic, Swedish, Polish (and other neighboring European countries') capital are created and effectively work in the Russian northwestern region providing work for a great number of northwestern residents and generating considerable revenues, and the volume of capital investments in separate projects increases every year.

Of course, it is not that everything is perfect along the northwestern border, all the problems are solved and there are no predicaments for further cooperation, but Euroregions' Committees constituted by both Russian and European regional and local representatives who are well aware of the regional context, create an important administrative venue for discussing and addressing emerging regional problems and serve as an effective problem-solving mechanism. For instance, Euroregion Karelia has been very effective in solving environmental problems of the timber sector in the northwestern region by improving utilization of forest management and developing a set of regulations concerning protection of forest resources. Additionally, for quite a while Karelia was supplying neighboring Finland with raw timber and Karelians often complained of being some sort of raw-material appendix to Finland in the timber industry. The establishment of Euroregion Karelia in 2000 helped to address this problem and attract investment to setting up reprocessing and production enterprises in the Republic of Karelia thereby maximizing cost-effectiveness of Karelian exports.

The northwestern territories of the Russian Federation have always been part of Northern Europe and the processes of the EU enlargement and European integration have quickly made them come into immediate contact with the EU. According to respondents, Euroregions have been very effective mechanisms in preventing the creation of new dividing lines in Northern Europe by establishing intense cross border cooperation between the enlarged EU and the northwestern region of Russia. Euroregions have been extremely helpful for both Russian and European actors in developing networking, facilitating contacts and promoting trust and common identity across the borders.

The analysis shows that it is important to take into account the geopolitical factor when interpreting differences in the regional cooperation structures. It also indicates that regional cooperation is not a one-sided process and it is critical that all the parties involved are highly and genuinely motivated to develop regional cooperation so that it becomes successful.

According to respondents, the geographic location factor conditioned the European actors' genuine interest in the development of the northwestern region, which contributed to a great extent to the democratic and economic success of the region. For instance, Karelian case is a good example of such interest. Shortly after the collapse of the Soviet Union, Karelia and other northwestern provinces became the most open and democratic sub-national entities of Russia. While leaders in many other republics were monopolizing power and struggling with capturing full control over resources, Karelia quickly developed a local party system, implemented local self-government reforms, and put much effort in the development of civil society.

According to different experts, such fast advancement of democracy in Karelia can be explained by extensive help with the design, financial support and implementation of the necessary political, social and economic reforms that the Republic received from Finland, its

neighbor. In addition, it is argued that extensive exposure to the EU and intensified interaction among the EU and Karelian actors account for the peculiarity of Karelia's democratic and economic development. European actors, Finland and other Nordic states in particular, sponsored many reform initiatives in the republic.

The northwestern region has become a constant beneficiary of hundreds of projects and initiatives designed by the Baltic Countries, Finland and other Northern European countries and sponsored by the EU (under various instruments such as TACIS and INTERREG or EU's instruments for cross-border cooperation), or Nordic countries themselves. Hundreds of initiatives are designed and sponsored by the Northern European regional organizations, Russian northwestern regional and local organizations, Russian regional and provincial authorities, and Russian and European private sector actors; national, regional, and municipal governments and NGOs of different European states; and various European intergovernmental organizations. According to different regional experts, the rapprochement of the northwestern region and Northern Europe was inevitable due to the geopolitical factor.

Several regional experts argue that the strategies of the northwestern local and regional authorities (discussed in the historical path-dependence section), the region's openness to cooperation, and the developmental commitments of the Nordic countries conditioned by the region's geopolitical location were key to the success of the northwestern region in obtaining external funding and all kinds of support from European actors (consultations, information, etc.).

The geopolitical factor also conditioned the existence of the openness of the broader society. For instance, even during the Soviet times there were social interactions between Karelian residents and the residents of Finland, and Finnish was taught at Karelian and other northwestern schools and universities. Interaction between the northwestern region and Finland

and other Nordic neighbors has increased dramatically after the collapse of the Soviet system. At present, almost every northwesterner has some interaction with the Nordic neighbors through tourism, business initiatives, educational or social exchanges, or civil society projects. Finnish, Swedish, Norwegian and Baltic languages and culture, language, history, and economic courses focused on Northern Europe are now widely taught at schools and universities in the northwestern region. The northwestern region was also the first one in Russia to open European Studies Centers (usually with a special focus on the Nordic states) in universities.

According to the northwestern public officials, Nordic countries have been very active at the EU level in respect to the Russian northwestern region. It seems like at present, the southern region lacks actors (countries or regions of countries) particularly interested in the development of regional cooperation, and this can be explained by the factors discussed above.

Therefore, the difference between the developed regional cooperation and underdeveloped energy structures in the northwestern region and the underdeveloped regional cooperation and developed energy structures in the southern region can be explained by the geopolitical factor: due to the geopolitical location of the regions, the importance of the southern region for Europe is mainly constituted by its energy capabilities both in terms of resources and energy transits, while the northwestern region is largely perceived as an area of historical, political, cultural, and economic integration.

E. ECONOMIC FACTOR

The Northwestern region is generally regarded as one of the most dynamic parts of Russia. It is ranked first among the seven federal districts in terms of real gross regional product growth and (as mentioned previously) has the most equal income distribution. Unemployment

rate in the northwestern region is much lower than the Russia's average. The Expert Magazine has been rating the investment attractiveness of the Russian regions over several years by developing a set of regional investment components, including legislative, political, economic, financial, social, criminal and ecological risks. The northwestern provinces stand out for their low investment risk. During the last decade, the northwestern region has attracted more foreign investment than any other region of Russia despite the absence of oil and gas resources, while in Russia, energy sector is generally most attractive for foreign investors.

According to different respondents, the level of civic activism and private entrepreneurship in the northwestern region is even higher than that of some regions of Western Europe. When looking at the industrial production growth, which grew twice as fast in the northwestern region (13.4 percent) compared to Russia as a whole (6.1 percent) in 2004 (Denisova and Svedberg, 2005), a similar picture of the advancement of the northwestern region, compared to other Russian regions, is seen. This success is surprising as Russian economy is to a large extent dependent on the export of primary commodities, oil and gas in particular. Regions rich in oil and gas together with Moscow, the main economic, financial, and commercial center of Russia, make up a significant share of the Russian nominal gross domestic product (Denisova and Svedberg, 2005).

According to different regional experts, the success of the northwestern region was largely dependent on the progressive mentality of political and economic leaders at local, provincial and regional levels who pursued effective economic diversification and made the attraction of investment a regional economic strategy. Northwestern favorable foreign investment legislation attracts EU companies to different industries. The region's industrial development fostered by foreign multinational companies has generated significant infrastructure

growth. Interestingly, Novgorod province was the first one in Russia to adopt a foreign investment law. According to respondents, later on, other provinces copied the law after Novgorod. Novgorodian investment law has attracted a significant number of large and small companies from several countries to the northwestern region. Representatives of foreign firms operating in the northwestern region often speak about it as ‘investment heaven’.

Respondents claim that the northwestern provinces are more supportive of foreign business than other provinces of Russia. For instance, Novgorod administration is claimed to be particularly investor- friendly as it has cooperated extensively with investors to remove administrative obstacles. Novgorod province (an in general, northwestern region) has also the lowest level of state capture. As a result, Novgorod province best known for its history, folklore and museums, quickly became a developed economic center together with St. Petersburg and other northwestern provinces.

There is a significant variation in industrial structure across the northwestern provinces: for instance, Archangelsk and Karelia are typical forest, timber and paper regions whereas St. Petersburg and Pskov have strong food and beverage production; Vologda and Murmansk have ferrous metal industry (Denisova and Svedberg, 2005). By attracting foreign investment, the northwestern region has developed telecommunications, information technologies, and machinery industries. Major international companies open their branches and Research and Development labs in the northwestern region. Tourism companies flourish in the region; according to UNESCO, St. Petersburg and Novgorod, major historical cities of the northwestern region, rank among the top 10 cities in the world for ‘tourism appeal’.⁵² The service sector is

⁵² For more information, see Business Information Service for the Newly Independent States (BISNIS) report, available at <http://permanent.access.gpo.gov/lps1733/9903nort.htm>

increasing in the region both in terms of value added and employment. Small and medium-sized businesses are also most developed in the northwestern region according to different estimates.

Therefore, the northwestern region is quickly evolving into a highly developed economic and business entity eager to provide favorable conditions for investors and develop science intensive fields of economy and production. Of course, it does not mean that all the economic problems and predicaments are solved in the northwestern region, but in comparison with the other regions of Russia, it is really a success story despite the absence of oil and gas resources. According to respondents, in addition to progressive leadership and effective use of cultural and historical symbols, the absence of oil and gas resources was a critical factor in the region's economic success as it enabled regional elites to look for diverse economic mechanisms to enhance regional economic development.

Unlike poor in terms of energy northwestern region, southern region is on the contrary, very rich in oil and natural gas resources including Caspian, Azov and the Black Sea coastal series of fields. All the southern provinces are endowed with abundant resources. Therefore, the major industry in the southern region is oil and gas exploration, production, transportation, and trade. Southern oil is easily accessible and of high quality; for instance, Adygeya's 'white' oil is known all over the world. Southern oil is delivered to many other regions and countries (mainly EU countries). It is not only that the region has vast resources of its own, it is also a major transit territory for Azerbaijani and Central Asian oil and natural gas, therefore, it has a powerful geostrategic position and has an important role in the geopolitics of energy in Eurasia.

At the same time, the southern region is one of the poorest in Russia. Additionally, the southern region has the highest income distribution inequality and the lowest standards of living. In addition to various factors explaining this phenomenon, southern experts also claim that the

existence of resources is a curse for economic and democratic development of the southern region. With the rise of oil and gas prices at the end of 1990s, southern provincial elites engaged in intense power struggle over the vast regional resources and control over major energy companies operating in the region and energy transportation routes and facilities such as sea terminals and railways.

Present-day southern elites earn fortunes on energy trade and control of transit routes and do not have any incentives for economic diversification and developing alternative investment strategies. For instance, Kirsan Ilyumzhinov, a multi-millionaire and the president of the southern Republic of Kalmykia, and people from his clan officially control major provincial oil company, Kalmneft, and have millions on their banking accounts, while the majority of the Kalmyk population lives in poverty. Ilyumzhinov was elected President of Kalmykia in 1993, and immediately eliminated the Kalmyk parliament and changed the Kalmyk Republic's Constitution in order to lengthen his term of office. The new parliament was constituted by people loyal to Ilyumzhinov, mainly from his clan. Therefore, he and his people have been in power for 16 years (!). According to respondents, unemployment rate in Kalmykia was over 30% in 2008.

The situation with economic development and democracy in other southern provinces is not much different. For instance, Astrakhan elites are preoccupied with control over vast natural resources and exploration and production activities, as big part of the Caspian field is located in Astrakhan province and a multitude of energy companies operate there.

According to various regional experts, present political system in the southern region is dominated by the close alliance between regional bureaucrats and energy people. Regional bureaucrats and oligarchs cooperate closely to accumulate wealth, take control over natural resources of the region, and exert political authority as a result of the collapse of the formal

administrative capacities or intentional restriction of democracy (like in Kalmykia). Communist-era regional clan elites have used the collapse of the Soviet system to create a new class of wealthy businessmen and entrepreneurs closely linked to administrative power and criminal groupings. According to respondents, nowadays regional bureaucrats have direct or indirect interest in all the energy companies operating in the region and their involvement in the energy sector has increased dramatically. Three years ago southern provincial governments altogether owned or controlled 20% of the total value of the listed energy stocks in the region. Today, they control over 70% of the regional oil and gas sector. A very negative consequence of these processes is increasing corruption. The region's political system is inherently weak, not representative and is pursuing its own corrupt interests. Ironically, according to some respondents, regional bureaucracy that during the Soviet times was at least somehow controlled by the party apparatus has become a self-sufficient force in its own right.

The contrast between the southern and the northwestern region is striking, as if these two regions are completely different countries, with different administrative and economic systems, culture, social composition, and norms and values. Many respondents attribute it to the existence of abundant energy resources in the southern region that gave regional elites an opportunity to prosper and completely ignore socio-economic needs of the southern society. Therefore, the differences in the composition and the functioning of the regional cooperation and energy networks can be explained by the fact that due to the absence of resources, northwestern authorities had to look for different economic sources and, therefore, encouraged northwestern actors to engage in various economic, investment, and other partnerships with European actors, thereby creating dense and decentralized interorganizational networks in the northwestern region, while southern bureaucrats were quite self-sufficient with the region's vast resources which they

controlled either directly or through close alliance with the energy elites, and did not have incentives to develop diversified regional economic and social infrastructure and encourage southern actors to cooperate with foreign actors.

F. SUMMARY OF FINDINGS

The results of the analysis demonstrate that regional cooperation is an effective mechanism for the enhancement of democratic governance in the northwestern region and the transfer of the EU's norms into the regions' internal policies. In the northwestern region, regional cooperation contributes to the development of civic connection, which creates reciprocity and trust in the society, and encourages community engagement by disseminating information, connecting citizens, and enabling direct participation of people and their organizations in provincial and regional decision-making processes. Due to the specifics of the region, sub-national regionalism in the southern region is much less effective than in the northwestern region; however, regional cooperation with the EU still proved very important in creating links among different regional and local actors. Strong alliance between public sector actors and energy sector actors in the southern region proved to have a negative effect on the regional integration and the development of democratic governance by encouraging corruption, nepotism, clientelism, complacency in policy-making and creating incentives for rent-seeking.

The analysis indicates that it is critical to consider social structures, culture and traditions to understand the differences in the functioning and the structure of interorganizational links among the actors engaged in the EU-Russia regional cooperation, and between energy companies and provincial governments. The analysis demonstrates that to a large extent, substantial regional discrepancies, which widened after the collapse of the Soviet Union, account

for the differences in the regional cooperation and energy structures; therefore, these differences can be traced back to a very distant past.

Historically, the northwestern region of Russia has been a much more ethno-culturally cohesive and democratic entity than the southern region. Additionally, it served as an important link to Europe and the West. Likewise, Europe (especially Northern Europe) has always played a significant role in the political, administrative and economic development of the northwestern Russia due to the common historical and cultural past. Many centuries have passed, but the tradition is still alive due to historical path-dependence. At the same time, the southern region, which was incorporated into Russia in the course of the expansion of the Russian Empire, has historically been populated by a multitude of peoples with different ethnic, cultural, linguistic, and religious backgrounds and has been significantly influenced by several non-European administrative, cultural and economic systems. Additionally, the southern region has preserved to a large extent the traditional clan societal structure and evolved more autocratic governance patterns based on the leadership of clan elites.

Four main factors contributed to the socio- economic and political success of the northwestern region and the failure of the southern region to develop democratic governance after the collapse of the Soviet Union. These factors also explain the differences in the interorganizational regional cooperation and energy structures discussed in Chapter IV. First, cohesiveness of the northwestern region and, respectively, high segmentation and clan-based politics of the southern region. Second, historical path-dependency in terms of the northwestern region being a consolidated democratic entity in the past, while the southern region being a conglomerate of different peoples with predominantly autocratic forms of governance based on clan hierarchy and clan leadership. Third, geopolitical location of the regions in respect to the

outside influences and interested actors, with the northwestern region located in a European environment with European actors genuinely interested in its development, while the southern region located in a very culturally and economically diverse area with the neighbors mainly interested in its natural resources and its geostrategic location of being a key point for the transfer of Caspian and (increasingly) Central Asian energy. And fourth, the existence of oil and gas resources, which stifled democracy in the southern region by creating opportunities for rent-seeking and encouraging complacency in policy-making, while in the northern region the absence of resources created incentives for economic diversification and establishing intense networking with European actors and enabled the necessary democratic administrative reforms.

VI. CONCLUSION AND PROSPECTS FOR FURTHER DEVELOPMENT OF THE EU-RUSSIA SUB-NATIONAL INTEGRATION AND DEMOCRATIC GOVERNANCE IN THE RUSSIAN REGIONS

In exploring the puzzle of variation in democratic governance among the subjects of the Russian Federation and the relationship between the level of democratic governance in the region and the region's cooperation with the EU, this dissertation sought to address important gaps in the literature on European integration and democratization in respect to non-candidate countries in Wider Europe, EU external governance, and regionalism. The dissertation also assessed the effects of EU-Russia regional cooperation on the regional development in the Russian regions involved in cooperation and investigated internal and external factors that account for the resistance to or acceptance of democratic norms induced by the regional cooperation with the EU.

The first chapters of the dissertation gave a comprehensive overview of the EU-Russia relations and discussed the peculiarities of the intense regional dynamics in the Northern Dimension and the Black Sea Synergy in comparison with the strained relations between Moscow and Brussels.

The third chapter outlined existing differences between the subjects of the Russian Federation and issues related to the international activity of the Russian regions, and presented longitudinal analysis of democratic governance in the Russian provinces. The results indicate that the level of democratic governance in the provinces, among other factors, is significantly influenced by the intensity of the provinces' cooperation with the EU (as measured by the number of social, economic, cultural, etc. cooperation initiatives between the actors residing in

the province and European actors and the number of EU assistance programs in the province). Important internal factor negatively affecting democratic governance turned out to be energy (as measured by the number of energy companies in the region and region's dependence on oil and gas revenues). The longitudinal analysis outlined important overall tendencies concerning democratic governance in the Russian provinces and helped to find statistically significant factors that explain variation in democratic governance; however, due to the specifics of the method, it was unable to give an in-depth analysis of these factors, for instance, provide explanations through which mechanisms cooperation with the EU and energy activity in the province affect democratic governance, what structural properties of these variables are and what factors condition the properties of these variables.

Therefore, the fourth chapter was devoted to the in-depth analysis of the factors affecting the level of democratic governance in the Russian regions. The fourth chapter presented a longitudinal comparative analysis of the two case studies – EU-related regional cooperation and energy structures in the Russian northwestern and southern regions that are included in the regional dimensions of the EU foreign policy. The northwestern region is considered to be the most advanced region of Russia in terms of democratic governance, while the southern region shows much lower levels of democratic governance. In order to explain this difference, an in-depth interorganizational network analysis of the regional cooperation and energy structures was conducted in both regions. The network analysis examined structural properties of the regional cooperation and energy variables, identified the key actors of the networks, and assessed their propensity to influence decision-making processes in the regions.

The results of the analysis indicate that regional cooperation with the EU plays an important role in linking Russian local organizations, NGOs, companies, educational institutions,

and provincial governments in both the northwestern and the southern regions. However, due to the peculiarities of the regional structures, regional cooperation with the EU has a much stronger effect on the development of an interconnected regional infrastructure in the northwestern region. The northwestern region, which has higher level of democratic governance, appeared to have cohesive, dense and decentralized regional cooperation structures indicating that the regional cooperation processes are participatory, open, democratically legitimate and generate high levels of social capital in the region. The southern regional cooperation structures, on the contrary, happened to be largely fragmented and centralized around public sector actors, implying lower levels of cross-cutting ties, therefore, lower levels of social capital, restriction to decision-making processes for the majority of the actors, and barriers to information diffusion and exchange of resources. Northwestern structure showed the prevalence of horizontal modes of policy-making, while southern network happened to be vertically differentiated.

At the same time, due to abundant oil and gas resources and a multitude of energy companies operating in the region, the network of energy companies and provincial governments turned out to be much denser, more centralized, and vertically differentiated in the southern region, with stronger effects on regional decision-making processes indicating higher importance of energy issues in the regional affairs in the southern region than in the northwestern one. The results of the sub-national level analysis confirmed the overall tendency of the Russian energy sector to become more monopolistic and centralized around big energy companies and public sector actors.

The network approach was extremely helpful in the analysis of the regional cooperation and energy structures and their effects on governance; however, it was important to understand the local factors that shaped these structures and that account for the structural changes over time,

as regional cooperation and energy networks emerge and develop in a certain historical, ethno-cultural, economic, and political context, which conditions their development and to a great extent explains the way they function. Regional context also predetermines existing patterns of governance.

Therefore, the fifth chapter explored the regional specifics of the northwestern and the southern regions and their effects on the regional patterns of governance, based on the in-depth interviews with the Russian NGO representatives, public officials, businessmen, professors, social leaders, and energy sector representatives. The analysis indicated that the regional cooperation and the energy structures and the patterns of governance in the northwestern and the southern regions are to a great extent shaped and influenced by the regional cultural, historical, geopolitical, and economic contexts.

The northwestern region appeared to be historically much more ethno-culturally homogeneous and socially cohesive entity than the southern region, with a long-standing tradition of more democratic patterns of governance. The southern region, constituted by a multitude of different peoples with their distinct culture, traditions, and languages, evolved more autocratic forms of governance based on clan hierarchy and clan leadership. The northwestern region has always been culturally, historically, politically and economically part of common European heritage, which conditions European actors' interest in its socio-cultural and economic development. At the same time, the southern region has experienced a variety of external non-European influences from Arabic and Turkic to Central Asian. The main factor explaining increasing EU's interest in the region is its resources and the geopolitics of oil and gas in Eurasia. The absence of energy resources has been a significant factor in enabling the northwestern leaders conduct the necessary administrative and economic reforms, while the southern leaders

have been mainly relying on the vast southern resources, which increased corruption and encouraged complacency in the regional and local policy-making.

Therefore, regional historical, ethno-cultural, political, and economic context is extremely important in explaining European integration in Wider Europe and regionalism along the borders of the European Union. The regional context is also important in explaining the strength and intensity of democratization processes. The results of the analysis showed that in many ways, the regional cooperation and the energy structures in the northwestern and the southern regions reflect broader regional governance and societal structures. Therefore, it is possible to conclude that in the regions where democratic concerns hardly play any role and where democratic culture has never been part of historical development, EU-induced democratization processes will be slower and less efficient. On the contrary, in regions where even sometime in history democratic concerns were part of society's values and norms and where democratic concerns play at least some role in existing governance patterns, EU-induced democratization processes will be effective and regional cooperation networks will contribute to the efficient and participatory governance. At the same time, it is important to note that European integration in Wider Europe will occur most efficiently in the areas that share common geopolitical, ethno-cultural, and historical European heritage.

VII. CONTRIBUTIONS

A. CONTRIBUTIONS TO THE EU STUDIES

This research demonstrates that cooperation networks between the EU and the regions of the neighboring countries under certain conditions can serve as effective instruments for democratization and actor-based mechanisms for the indirect transfer of EU norms into regions' internal policies, build support for democracy among local and regional actors, and improve governance in the neighboring countries at the sub-national level, even when national-level conditions are not favorable for the EU influences. This dissertation emphasized the need to integrate the transnational and sub-national levels of analysis when theorizing the effectiveness of EU external influences. It also suggested that the analysis should take into account local factors that affect the EU-related regional processes and predetermine the outcomes of democratization efforts.

Theoretically, it responded to a weakness in the literature on EU external relations which has mainly been focused on EU's capacity to export its norms and standards beyond its borders at the national level within different legal frameworks, such as Partnership and Cooperation Agreements, Stabilization and Association Agreements, or European Neighborhood Policy and has given very little attention to the actual integration processes occurring at the sub-national level induced by increased interaction between local and regional actors operating in the EU member-states and regional and local actors of the neighboring countries.

This dissertation suggested specific structural model that links EU regional policies and actual influences in the Wider Europe to the regional processes- interorganizational network model. In doing so, it empirically addressed the question of the EU's impact on the regional governance patterns at the sub-national level, which has not been rigorously analyzed by the studies of EU external governance. The research indicates that the structure of the interactions among the public, civil society, and private-sector local and regional actors involved in cooperation with the respective actors from the EU member-states and the EU institutions in the regional cooperation domain to a great extent reflects broader patterns of governance existing in the region.

The dissertation also took into consideration sub-national-level variables explaining regional integration and broader regional governance patterns which have not received much attention in works on EU external governance and European integration – ethno-cultural, historical, geopolitical, and economic regional contexts. In addition, this research demonstrated that for successful integration, not only the EU institutions, but also the EU member-states and local and regional actors coming from the EU member-states, as well as the regions of the neighboring countries and the actors residing in those regions should be genuinely motivated and interested in integration. In this respect, applying the insights gained from the cases of the Russian northwestern and southern regions to future case studies of regional cooperation between the EU and the neighboring countries would help predict integration patterns in other areas (*e.g.* Armenia, Ukraine, Belarus, Georgia).

In sum, this dissertation adds to our knowledge of the processes occurring in the regional domains of the EU foreign policy and the international activity of the EU member-states and advances our understanding of regional integration processes and local factors that explain

existing patterns of governance, shape and influence regional cooperation structures, and account for the resistance to or acceptance of EU-related norms. As such, it contributes to the recent and increasingly growing literature on the EU external governance and democratization in the Wider Europe, as well as to more general studies that focus on the EU relations with the neighboring countries and the regions of the neighboring countries.

B. CONTRIBUTIONS TO THE STUDIES OF REGIONALISM

The dynamics and geopolitical importance of European integration, as well as other processes of regional development and integration (*e.g.* ASEAN, MERCOSUR) have become of major importance for international politics, economics and social development. The complexity of these processes induced by increased interaction among public, private, and civil society actors in advancing a plurality of regional political, economic and socio-cultural objectives have spurred a myriad of studies focusing on the phenomenon of regionalism in contemporary international affairs.

However, the studies of regionalism have been mainly focused on explaining the rationale behind regional integration, the sources of regional cooperation and the design of regional institutions. Less attention has been paid to the actual impact of the regional integration on internal domestic transformations and the relationship between domestic patterns of governance and supranational, trans-regional, or inter-regional integration processes.

Moreover, the studies of regionalism have been mainly concerned with regionalism at the supranational, international, and national levels of analysis, and there have been very few studies of the sub-national regionalism- integration between certain regions and areas of nation-states, or

between regions of nation-states and nation-states, or between regions of nation-states and supranational constituents.

This dissertation contributes to the studies of sub-national regionalism and assesses the effects of the sub-regional integration on democratization and governance in the regions of the Russian Federation involved in the regional cooperation with the EU. In this respect, it might be useful to apply the regional integration network model to other areas of regional cooperation for the assessment of the strength, the intensity, and the efficiency of the regional integration processes.

The dissertation also explores local factors that impede or facilitate regional integration and demonstrates that the consideration of social structures, cultures, traditions, history, and geopolitics is necessary to understand and explain existing regional governance patterns and the emergency, the development, and the strength and intensity of sub-national regionalism.

Therefore, a similar combination of structure-based and culture-based approaches could be applied to the studies of other cases of sub-national regionalism, for instance regionalism along the Polish-Ukrainian or Russian Far Eastern and Chinese borders. Another interesting area of future research on the regional sub-nationalism could be the study of interaction between the processes occurring in regional domains and the national-level variables.

C. CONTRIBUTIONS TO THE INTERORGANIZATIONAL NETWORK STUDIES

In the recent years, there has been a steady increase in the number of studies focusing on interorganizational networks due to increased interorganizational networking in the production and delivery of social services and cooperation among various private-sector actors. However, these studies usually focus on one particular type of interorganizational networks, for example,

networks of human rights NGOs, networks of health associations, or corporate networks. There have been no comprehensive studies of interorganizational linkages between public, civil society, and private-sector actors despite the fact that interaction between all the three sectors is growing in different domains of social, economic, and policy-making activity. This study significantly contributes to the intersectoral network research by looking at how actors from different sectors interact and behave in the regional cooperation and energy domains in the Russian northwestern and southern regions.

While the traditional interorganizational network literature is rich in information about why networks emerge, it is less rich in information about the particular configurations of those networks. In addition, interorganizational network-level research has primarily been theoretical or based on descriptive case studies (Provan, Fish and Sydow, 2007). This study contributes significantly to the interorganizational network research, as it offers comparative longitudinal assessment of regional network structures and their impact on democracy and regional development.

This research sought to explore the structural properties of the energy and the EU-Russia regional cooperation networks in the Russian northwestern and southern regions in order to explain regional governance patterns and sub-national regionalism patterns and assess their effects on democracy and regional social and economic development. The results of the analysis demonstrate that the structural endogenous network parameters, such as centralization and cohesion, and several exogenous attributes explain the patterns of cooperation among actors involved in the regional cooperation and interaction patterns in the energy domain. The results indicate that the structure of the regional cooperation and energy networks affects the exchange of information and resources among the network actors, determines the level of social capital

generated by the network, and explains opportunities and constraints emerging for regional and local actors in the systems.

At the same time, the analysis indicates that the current structure of the interorganizational linkages is largely influenced by the previous patterns of interaction among the network actors. The research demonstrates that the legacy of old linkages and the configuration of new ties are important for interpreting the effects of the processes occurring in the regional cooperation and energy domains on the regional development and democratic governance in the Russian northwestern and southern regions.

APPENDIXES

APPENDIX A.

CHAPTER III

Tests of the efficiency of the fixed effects and random effects models

The first test is the test for the statistical significance of U. From the previous discussion it is clear that unit-level error is important and it is necessary to know the statistical significance of the effects. Breusch and Pagan Lagrangian multiplier test of random effect shows that there is a high chi square (124.78), which suggests that the null hypothesis should be rejected.

Estimated results:

```
-----  
e    1.067053    1.032982  
u    2.512591    1.585116
```

```
Test:  Var(u) = 0  
chi2(1) = 124.78  
Prob > chi2 = 0.0000
```

Then Hausman test is conducted, which suggests that the if the assumptions of the random effect model hold, then fixed effects and random effects produce correct estimates using different techniques. In this case random effect is a more efficient model. If the assumptions are not correct, then the fixed effects model is a better model. So, there should be the same estimates between the models if the assumptions of random effects are true. According to the Hausman test ($\chi^2 = 71$), there is a significant difference in the estimates:

---- Coefficients ----				
	(b) fixed	(B) random	(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
nres	-.1244513	-.0949089	-.0295424	.0401925
proj	.3239824	.29001112	.03397128	.1012435

Another way to assess the preference of models is by testing the assumption about the error term structure in the random effects model. The assumptions state that total error variations are constant/Assumption 2 and that random error correlation are equal to 0/Assumption 3. These assumptions are tested by predicting randtotres, ue and predicting randerror, e. After this the randtotres and randerror are correlated. The correlation matrices suggest that the assumption do not hold.

randto~1	randto~9	randto~4	
randtot~1991	1.0000		
randtot~1999	0.7111	1.0000	
randtot~2004	0.6774	0.8746	1.0000
randerr~1	randerr~9	randerr~4	
randerr~1991	1.0000		
randerr~1999	-0.6688	1.0000	
randerr~2004	-0.6639	0.2184	1.0000

The assumptions about error term structure in the random effects model were tested and the results indicate that the total error correlations are not constant and random error correlations are not 0, so this assumption of the random effects model is violated.

APPENDIX B.

CHAPTER IV

LIST OF PROVINCES

The Northwestern Region

St. Petersburg (Leningrad) oblast
Novgorod oblast
Vologda oblast
Arhangelsk oblast (excluding Nenets Autonomous District)
Pskov oblast
Republic of Karelia
Murmansk oblast
Kaliningrad oblast

The Southern Region

Rostov oblast
Astrakhan oblast
Krasnodar Krai
Stavropol Krai
Republic of Adygeya
Kabardino-Balkar Republic
Karachaevo-Cherkessk Republic
Republic of Kalmykiya
Republic of North Osetia

LIST OF SOURCES FOR THE NETWORK DATA

EU Tacis programs:

http://europa.eu.int/comm/external_relations/ceeca/tacis/

Northern Dimension initiatives

http://ec.europa.eu/external_relations/north_dim/doc/index.htm

Black Sea cross-border programs

<http://www.blacksea-cbc.net/index.php?page=MAP;>

Neighborhood initiatives

[http://www.delrus.ec.europa.eu/en/p_647.htm;](http://www.delrus.ec.europa.eu/en/p_647.htm)

Cooperation partnerships

http://www.delrus.ec.europa.eu/en/p_258.htm

ENPI programs

http://www.together50years.eu/EN/mn3_hr/enpi.htm

External cooperation programs

http://ec.europa.eu/europeaid/where/neighbourhood/regional-cooperation/enpi-cross-border/index_en.htm

Euroregions

<http://www.siauliai.aps.lt/saule/about.html>,
<http://www.euroregionbaltic.eu/members.php>,
<http://euregio.karelia.ru/site/?lang=eng>

Baltic Euroregion Network

<http://www.benproject.org/en>

Russian National Statistics Committee Reports (GOSKOMSTAT)

Russian Reports of Inter-regional and Trans-Regional Cooperation (Basa Dannih po Regionalnomu Tosrudnichestvu)

EU External Delegation to Russia resources, available at

<http://www.delrus.ec.europa.eu/en/index.htm>

Common Strategy of the European Union on Russia, 4 June 1999, p. 1, available at

<http://www.ena.lu/europe/european-union/common-strategy-european-union-1999-cfsp.htm>

Common European Economic Space, Concept Paper, available at

http://europa.eu.int/comm/external_relations/russia/summit11_03/1concl.pdf

Customs Control Department, Ministry of Finance, Russian Federation, 2004 report

ESA permanent mission in Russia, available at
http://www.esa.int/SPECIALS/ESA_Permanent_Mission_in_Russia/SEMT5XVLWFE_0.html).

EU Commission's Delegation/ EU and Russia/Economics and Trade, available at
http://www.delrus.cec.eu.int/en/p_216.htm

The EU-Russia Archive; official documents and declarations, available at
<http://www.bits.de/EURA/EURAMAIN.htm>

EU-Russian relations, 2005, available at
http://europa.eu.int/comm/external_relations/russia/intro/index.htm

EU/Russia: The four "common spaces", available at
http://europa.eu.int/comm/external_relations/russia/summit_11_04/m04_268.htm

Russian regional reports of foreign initiatives

Southern Federal District and its subjects
<http://ufo.gov.ru/>

Northwestern Federal District and its subjects
www.szfo.ru/

Websites of provinces:

The Northwestern Region

St. Petersburg (Leningrad) oblast
<http://www.lenobl.ru/>

Novgorod oblast
<http://region.adm.nov.ru:8082/wps/portal>

Vologda oblast
<http://www.vologda-oblast.ru/>

Arhangelsk oblast (excluding Nenets Autonomous District)

<http://www.dvinaland.ru/>

Pskov oblast

<http://www.pskov.ru/>

Republic of Karelia

<http://www.gov.karelia.ru/>

Murmansk oblast

<http://www.gov-murman.ru/>

Kaliningrad oblast

<http://www.kaliningradobl.ru/>

The Southern Region

Rostov oblast

<http://www.donland.ru/>

Astrakhan oblast

<http://www.astrobduma.ru/>

Krasnodar Krai

<http://admkrain.kuban.ru/>

Stavropol Krai

<http://www.1777.ru/>

Republic of Adygeya

<http://www.adygheya.ru/>

Kabardino-Balkar Republic

<http://www.nalnet.ru/>

Karachaevo-Cherkessk Republic

<http://www.spektr.info/info/karachaevo-cherkessiya/>

Republic of Kalmykiya

<http://www.kalm.ru/ru/>

Republic of North Osetia

<http://www.rso-a.ru/>

Newspapers (Russian, Baltic, Nordic, German)- for the regional cooperation and the energy data:

Vechernii Krasnodar
Va Bank
Volnaya Kuban
Krasnodarskie Izvestia
Stavropolskaya Pravda
Stavropolskie Gubernskie Vedomosti
Severkii Kavkas
Vesti Slavian Uga Rossii
Novaya Gazeta
Gazeta Uga
Kabardino-Balkarskaya Pravda
Slovo Osetii
Severokaspiiskaya Pravda
Privolzhskaya Gazeta
AIF v Astrakhani
Stepnaya Nov
AIF na Donu
Vesti Pridonia
Komsomolskaya Pravda na Donu
Nobaya Azovskaya Gazeta
Priazovskii Krai
Vedomosti
Nevskoe Vremia
St Petersburg Times
Novosti Peterburga
Rossiiskaya Gazeta
Novgorodskie Vedomosti
Novaya Novgorodskaya Gazeta
Novgorodskii Universitet
Region Baltika
Gazeta Karelia
Karelskaya Gubernia
Petrozavodskii Universitet
Avangard
Vesti Arhangel'skoi Oblasti
Velskie Vesti
Dvinskaya Pravda
Pomorskii Kurier
Novii Arhangel'sk
Pskovskaya Pravda
Kurier pskov-Velikie Luki
Pskovskaya Kolokolnya
Vechernii Murmansk

Niva
Pechenga
Polyarnaya Pravda
Ärileht (Tallinn)
Äripäev
Õpetajateleht
Baltische Rundschau (Vilnius)
Eesti Ekspress
Eesti Kirik
Eesti Päevaleht
Lääne Elu
Maaleht (Tallinn)
Meie Maa
Molodjov Estonii
Narvskaya Gazeta (Narva)
Nelli Teataja
Põhjarannik
Postimees
SIRP
SL Õhtuleht (Tallinn)
Võrumaa Teataja
Nasha
Latgales Laiks
The Baltic Times
Litovskij Kurier
Baltic News
Helsinki Sanomat International
Aftenbladet
Aftenposten
Bellona
Nettavisen
Berliner Morgenpost
International Herald Tribune
The local
Der Spiegel

Specifically for the energy data:

Websites of the energy companies:

General website: <http://www.oilru.com/>

Gazprom
<http://www.gazprom.ru/>

Rosneft

<http://www.rosneft.ru/>

Russneft

<http://www.russneft.ru/>

Transneft

<http://www.transneft.ru/>

Tatneft

<http://www.tatneft.ru/>

Lukoil

<http://www.lukoil.com/>

Kalmneft

<http://www.oilcapital.ru/info/companies/comp1/63424/private/63454.shtml>

Donskie Nefteprodukti

<http://www.rosbalt.ru/2008/04/14/474673.html>

Krasnodarneftegaz

<http://krasnodarneftegaz.ru/>

Volgodonsknefteprodukt

http://www.nge.ru/abonents_card_51313.htm

Dongazdobycha

<http://www.oilru.com/news/52581/>

Kaspiiskaya Neftyanaya Kompania

http://www.lukoil.ru/press.asp?div_id=1&id=118&year=2000

Other websites:

http://www.bbc.co.uk/russian/oil_chechnya.shtml

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http://www.diptex.ru/firms/extraction_of_crude_oil_and_oil_passing_gas/single/a/

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<http://www.top-r.ru/journal/a4776.html>

<http://www.prime-tass.ru/news/show.asp?id=726771&ct=news>

<http://www.regnum.ru/news/1137168.html>

Other Information sources:

Russia/Finland, Border Crossing at Svetogorsk, available at

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Khristenko, V., Doklad Ministra Promyshlennosti I Energetikji RF Viktora Kristenko na Vserossiyskoy Nedele Nefti i Gaza, Press-riliz, October 2004, Ministerstvo promyshlennosti I energetiki, available at www.mte.gov.ru/docs/1/2166.html.

Russia's Statistics Committee Report, 2004

European Policy Summit: Russia and Europe, May 14, 2004 - La Bibliothèque Solvay, available at

http://www.friendsofeurope.org/index.asp?http://www.friendsofeurope.org/conf_prog.asp?Confid=333&frame=yes~bas

Southern Cooperation Network 1999

<i>Degree indexes</i>	<i>centrality</i>	<i>Betweenness indexes (normalized)</i>	<i>Centrality</i>	<i>Eigenvector indexes</i>	<i>Centrality</i>	<i>Closeness centrality indexes</i>
Krasnodar gov (71)		Krasnodar gov (42.1)		Rostov gov (0.45)		Krasnodar gov (64)
Rostov gov (63)		Rostov gov (28.3)		Krasnodar gov (0.44)		Rostov gov (61)
Stavropol gov (41)		Stavropol gov (26.2)		Stavropol gov (0.24)		Stavropol gov (56)
Astrakhan gov (40)		Astrakhan gov (22.7)		Astrakhan gov (0.18)		Astrakhan gov (56)
Maikop gov (25)		Maikop gov (10.1)		Maikop gov (0.15)		Elista gov (53)
Cherkessk gov (18)		Cherkessk gov (8.3)		Cherkessk gov (0.13)		Cherkessk gov (52)
Elista gov (18)		Elista gov (6.5)		Elista gov (0.12)		Maikop gov (52)
Nalchik gov (16)		Nalchik gov (5.9)		Kuban university (0.09)		Vlad gov (51)
Kuban University (15)		Vlad gov (2.4)		Nalchik gov (0.08)		Nalchik gov (49)
Vlad gov (12)		Kuban University (1.9)		Vlad gov (0.07)		Stavr University (46)

Southern Cooperation Network 2006

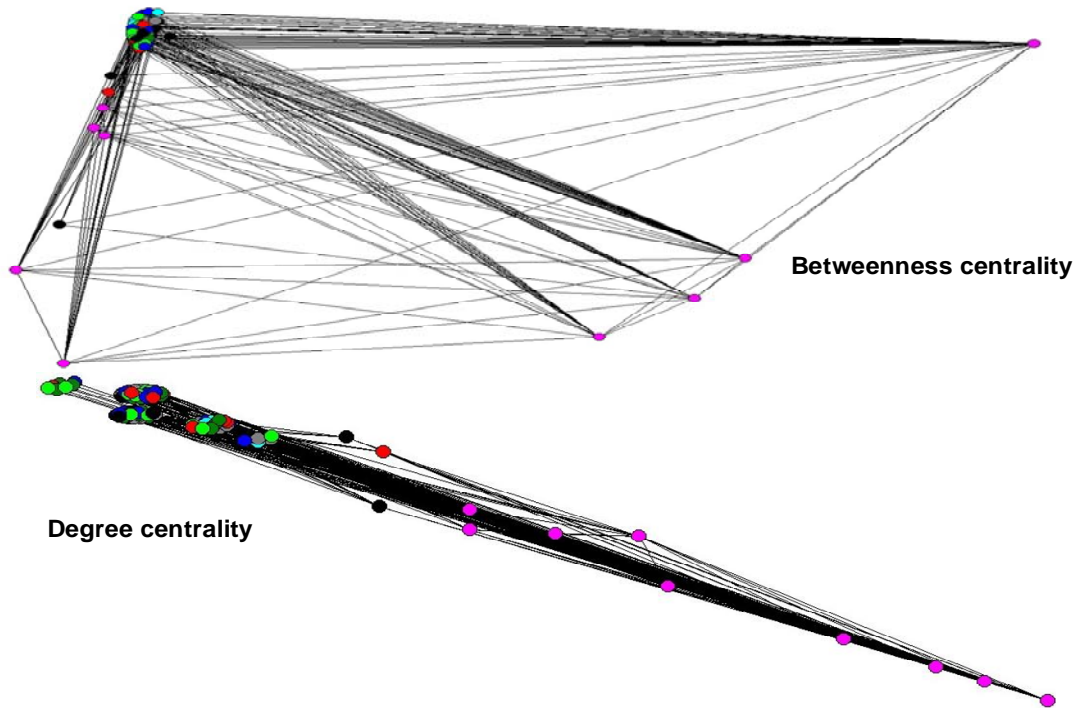
<i>Degree indexes</i>	<i>centrality</i>	<i>Betweenness indexes (normalized)</i>	<i>Centrality</i>	<i>Eigenvector indexes</i>	<i>Centrality</i>	<i>Closeness centrality indexes</i>
Krasnodar gov (78)		Krasnodar gov (41.3)		Krasnodar gov (0.48)		Krasnodar gov (66)
Rostov gov (73)		Rostov gov (27.3)		Rostov gov (0.46)		Rostov gov (63)
Stavropol gov (71)		Stavropol gov (26.2)		Stavropol gov (0.25)		Stavropol gov (58)
Astrakhan gov (56)		Astrakhan gov (24.7)		Astrakhan gov (0.22)		Astrakhan gov (56)
Elista gov (33)		Elista gov (14.4)		Maikop gov (0.18)		Elista gov (54)
Cherkessk gov (25)		Region obr (12.2)		Cherkessk gov (0.15)		Cherkessk gov (54)
Kuban University (18)		Cherkessk gov (10.1)		Elista gov (0.13)		Maikop gov (53)
Maikop gov (16)		Maikop gov (7.5)		Assotsiatsia NKO (0.12)		Vlad gov (51)
Region obr (15)		Kuban University (2.4)		Kuban University (0.12)		Nalchik gov (50)
Ekologika (14)		Ekologika (1.9)		Vlad gov (0.08)		Ekonom (48)

Northwestern Cooperation Network 1999

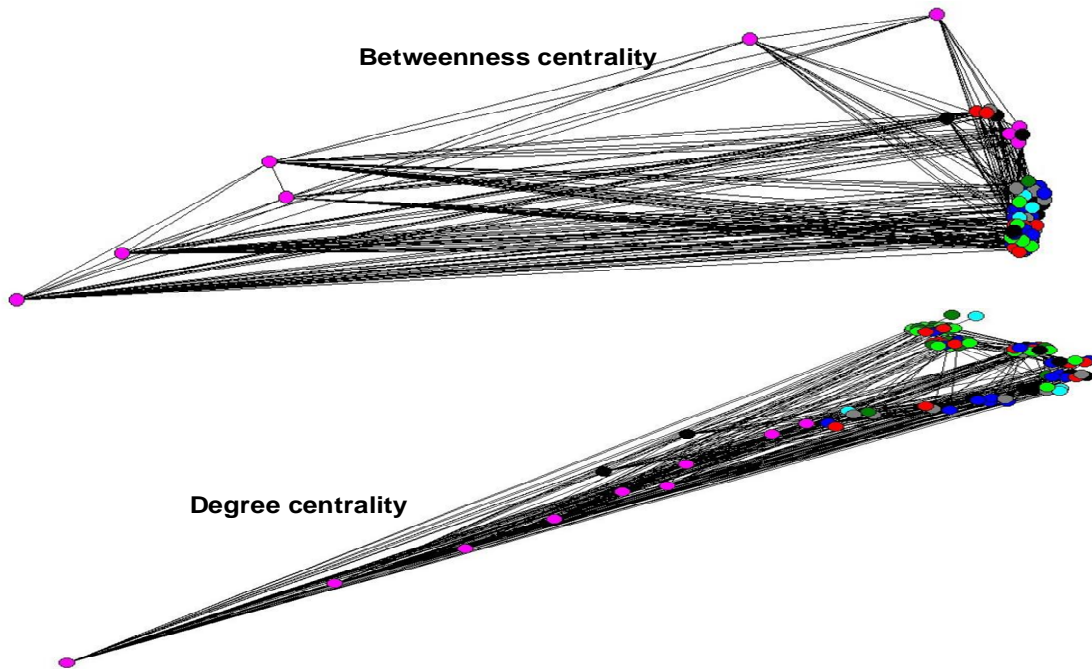
<i>Degree centrality indexes</i>	<i>Betweenness Centrality indexes (normalized)</i>	<i>Eigenvector Centrality indexes</i>	<i>Closeness centrality indexes</i>
Transphere (31)	Transphere (20.3)	Transphere (0.21)	Transphere (41)
Vneshtorgbank (29)	Vneshtorgbank (19.2)	Vneshtorgbank (0.19)	Vneshtorgbank (40)
ATV (25)	ATV (17.2)	St University (0.17)	ATV (40)
St University (24)	NCMB (14.5)	NCMB (0.15)	Logist part (37)
NCMB (21)	Assotsiatsia sots org (13.8)	ATV (0.15)	Vneshtorgbank (35)
St Petersburg gov (19)	St University (11.9)	St Petersburg gov (0.12)	St Petersburg gov (31)
Novgorod gov (18)	St Petersburg gov (10.5)	Logist part (0.11)	Novgorod gov (29)
Logist part (16)	Logist part (9.8)	Novgorod gov (0.09)	St University (27)
Assotsiatsia sots org (15)	Novgorod gov (7.3)	Assotsiatsia sots org (0.07)	Assotsiatsia sots org (25)
RSB (14)	Shkola prav (5.1)	RSB (0.06)	RSB (21)

Northwestern Cooperation Network 2006

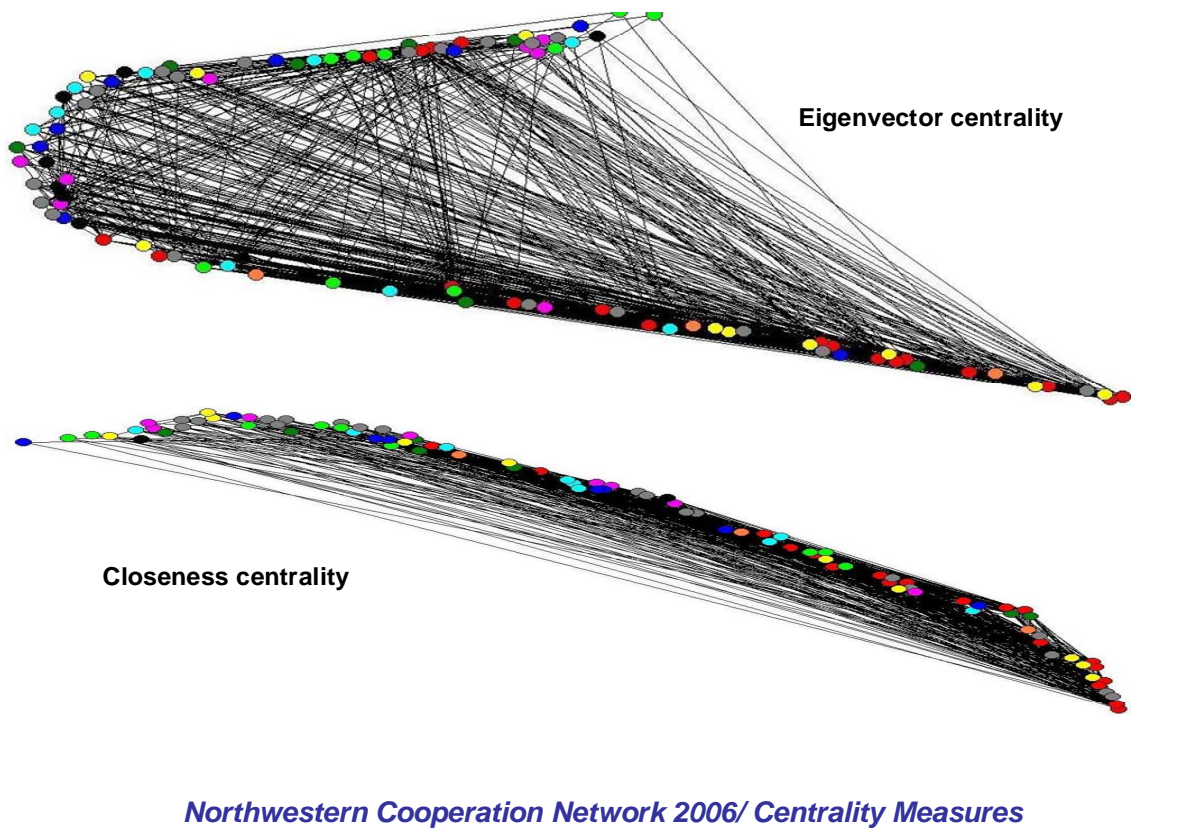
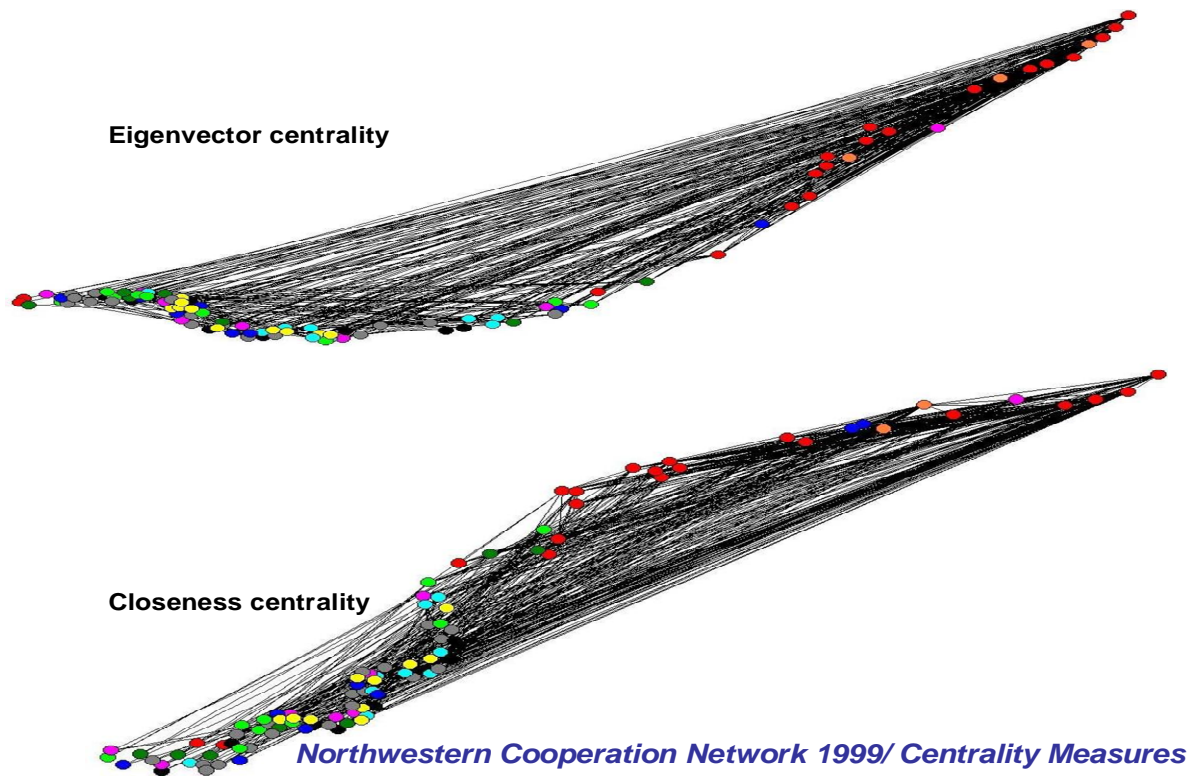
<i>Degree centrality indexes</i>	<i>Betweenness Centrality indexes (normalized)</i>	<i>Eigenvector Centrality indexes</i>	<i>Closeness centrality indexes</i>
North-West Assoc (17)	North-West Assoc (9.2)	North-West Assoc (0.13)	North-West Assoc (25)
Econ Dev (16)	Econ Dev (8.4)	Econ Dev (0.11)	Econ Dev (23)
Cult Init (16)	Cult Init (7.9)	Cult Init (0.11)	Cult Init (22)
Sev prirodoohran (14)	Sev prirodoohran (7.6)	Sev prirodoohran (0.09)	Transphere (19)
St University (13)	St University (7.3)	Transphere (0.08)	Journalism CT (18)
Petrozavodsk Univ (12)	Journalism CT (7.1)	Journalism CT (0.08)	Sev prirodoohran (18)
Resource Center (12)	Transphere (6.9)	Resource Center (0.07)	St University (17)
Journalism CT (11)	Petrozavodsk Univ (6.7)	St University (0.06)	Petrozavodsk Univ (15)
Transphere (10)	Resource Center (6.4)	Petrozavodsk Univ (0.06)	Resource Center (14)
St Petersburg gov (9)	St Petersburg gov (6.1)	KulturKontakt (0.05)	St Petersburg gov (11.1)

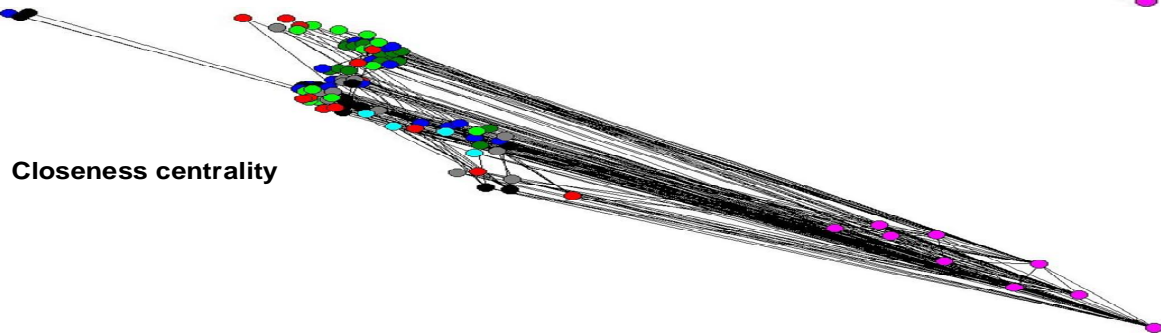
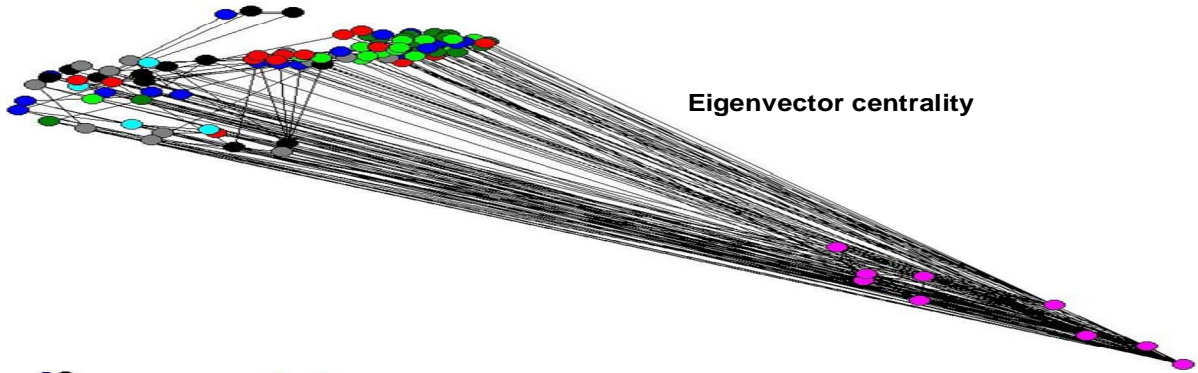


Southern Cooperation Network 1999/ Centrality Measures

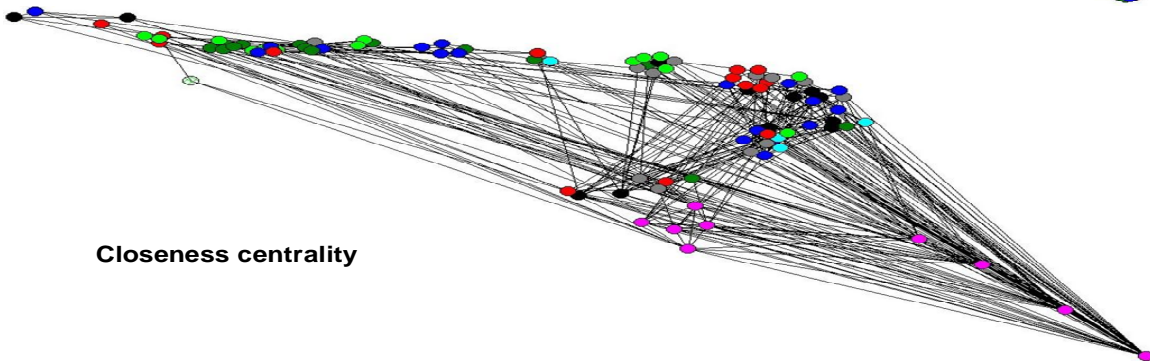
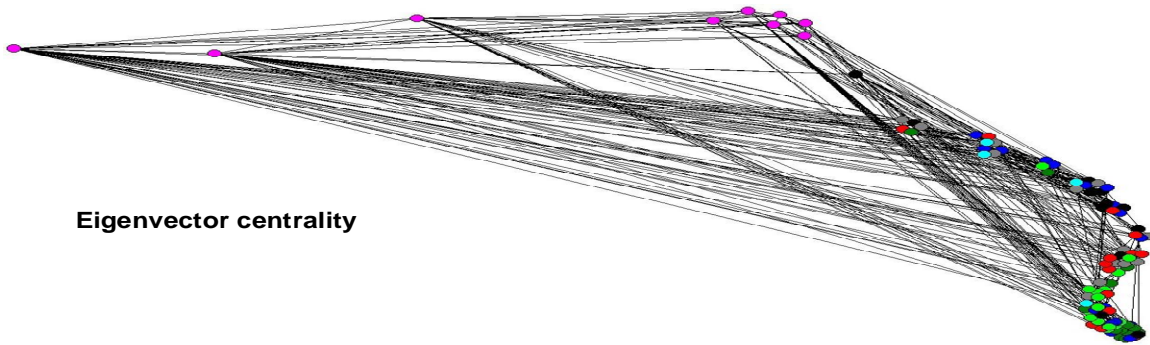


Southern Cooperation Network 2006/ Centrality Measures

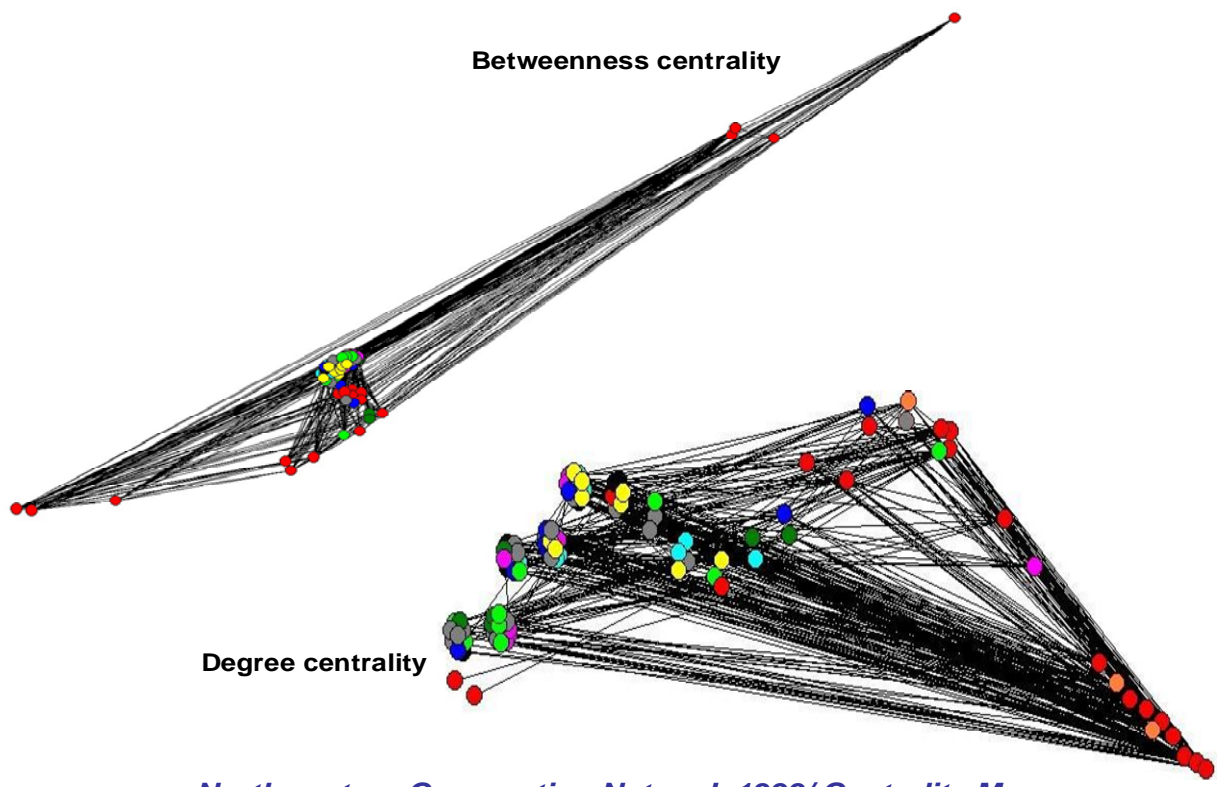




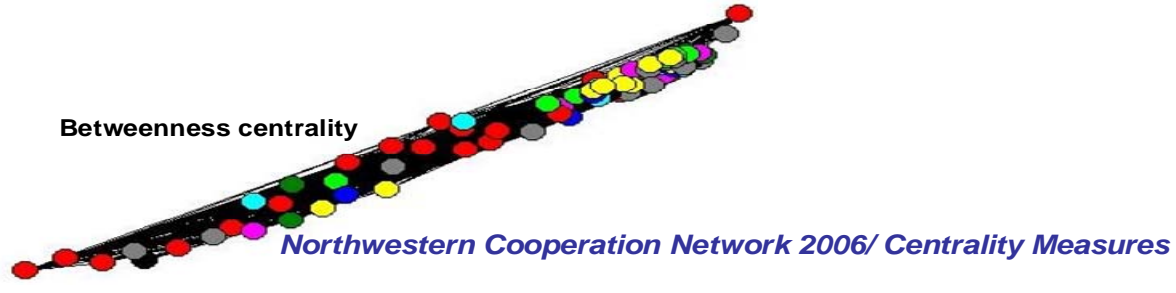
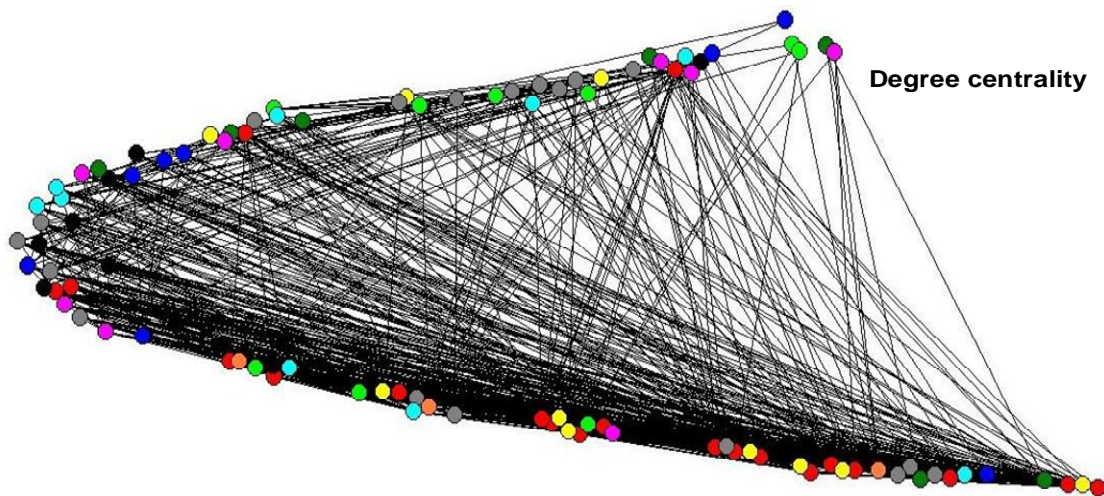
Southern Cooperation Network 1999/ Centrality Measures



Southern Cooperation Network 2006/ Centrality Measures



Northwestern Cooperation Network 1999/ Centrality Measures



Northwestern Cooperation Network 2006/ Centrality Measures

<i>Northwestern Cooperation Network 1999 Power Scores</i>	<i>Southern Cooperation Network 1999 Power Scores</i>
Transphere (27)	Rostov gov (64)
Vneshtorgbank (25)	Krasnodar gov (60)
St University (23)	Astrakhan gov (58)
NCMB (20)	Stavropol gov (56)
ATV (18)	Maikop gov (50)
St Petersburg gov (16)	Cherkessk gov (47)
Logist part (15)	Elista gov (42)
Novgorod gov (15)	Nalchik gov (40)
Assotsiatsia sots org (12)	Kuban University (30)
RSB (10)	Vlad gov (26)

<i>Northwestern Cooperation Network 2006 Power Scores</i>	<i>Southern Cooperation Network 2006 Power Scores</i>
North-West Assoc (14)	Krasnodar gov (71)
Econ Dev (14)	Rostov gov (69)
Cult Init (14)	Stavropol gov (65)
Sev prirodoohran (13)	Astrakhan gov (54)
Transphere (12)	Maikop gov (52)
Journalism CT (11)	Cherkessk gov (50)
Resource Center (11)	Elista gov (45)
St University (10)	Assotsiatsia NKO (43)
Petrozavodsk Univ (8)	Kuban University (40)
KulturKontakt (8)	Ekologika (38)

Southern Energy Network

Southern Energy Network Closeness Centrality 99	Southern Energy Network Closeness Centrality 06	Southern Energy Network Betweenness Centrality 99	Southern Energy Network Betweenness Centrality 06
Lukoil (73.3) Gazprom (61.9) Rostov gov (55) Astrakhan gov (55) Krasnodar gov (55) Stavropol gov (54) Rosneft (52.4) Transneft (52.4) Elista gov (51.1) Tatneft (51.1)	Gazprom (98) Karsnodar gov (81.4) Rosneft (81.5) Astrakhan gov (78.8) Lukoil (74.7) Rostov gov (74.7) Stavropol gov (68.9) Elista gov (51.9) Kaspiiskaya Neft K (51.9) Maikop gov (50.7)	Lukoil (81.2) Gazprom (32) Krasnodar gov (31.3) Astrakhan gov (30.05) Rosneft (25) Stavropol gov (18.3) Rostov gov (15.7) Elista gov (15) Tatneft (12.3) Transneft (7)	Gazprom (59.1) Rosneft (35) Karsnodar gov (25.5) Astrakhan gov (20.2) Lukoil (19.2) Stavropol gov (17.8) Rostov gov (16.4) Elista gov (5.6) Maikop gov (4.2) Tatneft (3.6)

Northwestern Energy Network

Northwestern Energy Network Closeness Centrality 99	Northwestern Energy Network Closeness Centrality 06	Northwestern Energy Network Betweenness Centrality 99	Northwestern Energy Network Betweenness Centrality 06
Russneft (13.4) Gazprom (11.1) Rosneft (10) Tatneft (8) Lukoil (8) Kaliningrad gov (6) Murmansk gov (4.7) St Peterburg gov (4.4) Petrozavodsk gov (4.3) Novgorod gov(4.2)	Gazprom (12.2) Rosneft (12.2) Lukoil (12.2) Tatneft (10) Russneft (10) St_Peterburg gov (9.2) Novgorod gov (7.6) Kaliningr gov (7.2) Petrozavodsk gov (7.1) Murmansk gov (6.9)	Russneft (15) Gazprom (12.9) Tatneft (9.05) Lukoil (8.12) Kaliningrad gov(8.4) Murmansk gov (7.3) Rosneft (3.5) St Peterburg gov 3.1) Novgorod gov (2.1) Petrozavodsk gov (2)	Gazprom (14) Lukoil (13) Russneft (10) Novgorod gov (9) St Petersburg gov (9) Rosneft (6.3) Gazprom (6.3) Murmansk gov (2.4) Petrozavodsk gov (2.3) Kaliningrad gov (2.1)

<i>Northwestern Energy Network 1999 Power Scores</i>	<i>Southern Energy Network 1999 Power Scores</i>
Russneft (16)	Lukoil (70)
Gazprom (15)	Gazprom (68)
Rosneft (14)	Rostov gov (62)
Tatneft (13)	Astrakhan gov (60)
Lukoil (13)	Krasnodar gov (59)
Kaliningrad gov (9)	Stavropol gov (50)
Murmansk gov (7)	Rosneft (42)
St Peterburg gov (6)	Transneft (41)
Petrozavodsk gov (4)	Elista gov (38)
Novgorod gov(4)	Tatneft (32)

<i>Northwestern Energy Network 2006 Power Scores</i>	<i>Southern Energy Network 2006 Power Scores</i>
Gazprom (14)	Gazprom (96)
Rosneft (14)	Karsnodar gov (94)
Lukoil (13)	Rosneft (93)
Tatneft (11)	Astrakhan gov (92)
Russneft (11)	Lukoil (90)
St_Peterburg gov (10)	Rostov gov (89)
Novgorod gov (9)	Stavropol gov (87)
Kaliningr gov (8)	Elista gov (50)
Petrozavodsk gov (7)	Kaspiiskaya Neft K (48)
Murmansk gov (7)	Maikop gov (46)

APPENDIX C.

CHAPTER V

LIST OF RESPONDENTS

Andrey Bogdanov, leader of the Democratic Party of Russia (that proposed a Russian referendum for joining the EU), and candidate for the 2008 presidential elections.

Gregory Amnuell, Russian State Duma official and specialist in the Russia-Baltic relations.

Alexander Druzhinin, PhD, North Caucasus Research Institute of Economic and Social Problems, professor of regional geography and a social leader.

Oxana Karnauhova, PhD, Southern Federal University, professor, assistant director of the Masters Programs, southern regional expert.

Oxana Frolova, Stroimateriali, economic expert and a business leader.

Tatiana Zakharova, Youth Human Rights Network, Volunteering Strategies, regional social worker and social expert.

Maxim Golubev, Tatneft, Communications Department, regional energy expert.

Boris Maximenko, Krasnodar Oil Refinery, manager.

Elena Sedukova, PhD, Inter-regional Institute of Social Sciences, Culturology Department, senior researcher and professor.

Andrey Kirillov, PhD, Southern Federal University, Philosophy and Culturology Department, professor, assistant to dean.

Arsen Matarin, public official, Astrakhan region.

Nikolay Trapsh, PhD, Southern Federal University, History Department, professor, dean, specialist in regional cooperation with the EU.

Maria Chufistova, director of Cossack cultural heritage association, Krasnodar region.

Oxana Svetlitsina, representative of ACT Telecommunications Company, Adygea republic.

Maria Dementieva, manager of Cherkessk environmental NGO, Cherkessk.

Alla Voloshina, PhD, Southern Federal University, professor, director of the Masters Programs, southern regional expert.

Dmitry Karpuhin, representative of the Southern Sea Port Systems.

Alexey Ulesov, civil society specialist and regional NGO leader, Krasnodar Region.

Andrey Potapov, PhD, Severozapadniy Institut, historian and regional expert.

Alexander Konkov, Murmanskoe Televidenie, journalist and social leader, Murmansk region.

Alexei Suvorov, director of human rights school and council, Novgorod region.

Anonymous senior manager, Sintal Corporation, southern, central, and northwestern branches.

Mikhail Burtsev, representative of Charities Aid Foundation Russia

Marina Udaltsova, public official, St Petersburg region.

Viacheslav Morozov, representative of the nongovernmental environmental organization Priroda i Molodezh, Murmansk region.

Irina Chistiakova, Social Institute, program coordinator.

Alexey Poliakov, PhD, Arkhangelsk University, historian and researcher.

Galina Ustinova, Kalevala tsentr, ethnographer, the northwestern republic of Karelia.

Levada Analytical Center representatives (5 short interviews further united in one).

Ruslana Chernigovskaya, public official, Vologda region.

Sergey Ustinov, public official, Rostov region.

Maxim Bystryakov, Transneft Energy Company, Strategic Planning Department, manager.

Polina Fomina, northwestern regional expert and journalist, St Petersburg region.

Elena Kudriavtseva, regional entrepreneur, director of series of hotels and Sem Morei Tourism Company, St Petersburg region.

EXAMPLES OF QUESTIONS

- Your region is involved in the Northern Dimension (Black Sea Synergy) initiative. What is your assessment of the ND/BSS programs in your region? What are the implications of the ND/BSS partnership for the development of your region? In general, how would you estimate the importance of this partnership for the region?
- Is your region involved in all the ND/BSS institutional structures? If not, what are the reasons for your non-participation in some of the ND/BSS institutional arrangements and partnerships and what implications does your non-participation have for the regional politics?
- Do cooperation projects with the EU in your region have an impact on the regional policies? If yes, could you please describe this impact and specify what kind of projects have the biggest influence on the regional policy-making (civil society, environmental, education, economic, business)?
- Could you please give examples of the most successful cooperation projects in your region? Have those projects generated any policy events? What was their impact on the regional governance? How did they benefit the society? How many people were involved in the projects? How many were impacted?
- What is the institutional structure for the regional cooperation with the EU? What are the main organizations in your region involved in cooperation with the EU? Do they interact with the regional administration? If yes, what are the mechanisms of this interaction, how does this interaction occur? How would you assess the efficiency of this interaction?
- Could you please comment on the Russia-EU May 2007 first “direct partnerships” agreement that will help to establish and support direct contacts between the Russian and EU regions, bypassing national governments? Why do you think north-west region was chosen a ‘testing ground’ for this agreement? What impact will this agreement have on the regional politics and strategic planning in your region? Have the number of regional

cooperation initiatives increased in your region? Are there any new cooperation activities that did not exist before the 2007 agreement?

- How could you please explain the phenomenon that despite the fact that both south-west and north-west regions are involved in the regional dimensions of the EU neighborhood policy (which main goal is to foster democratization and improve governance in the neighboring countries), the strength of cooperative activity (the number of projects, the number of actors involved in each project) is significantly higher in the north-west than in the south-west of Russia? To what extent this could be explained by the local factors (e.g. geopolitical, cultural)? Can EU policies or interest be a possible explanation? Do you think EU's interests are different in the north-west region than in the south-west region?
- How much does the region depend on the revenues from the energy sector? How important is energy trade with the EU for the regional budget? How many energy companies are there in the region? What kind of impact do they have on the policy-making in the region? In what ways are the EU and other international actors involved in the energy sector in the region? Could you please speak about EU-related energy projects in your region (Southstream/Nordstream)? What is the institutional structure for these projects and to what extent are regional authorities involved in design and management of those projects? How would you assess the EU influence in the regional energy policy domain?
- Could you please comment on the phenomenon of the regional administration representatives serving on the board of directors of the energy companies or informal ties between energy companies and public-sector actors? How would you assess lobbying activities of the energy companies in the regional administration? What implications does this have for the governance in the region?
- How have Putin's "vertical of power" reforms impacted policy-making in your region? How do local factors interplay with the federal government directives in designing regional policies? What implications do these reforms have for the regional cooperation

with the EU? How important is the EU factor in the regional decision-making processes?
Is there a difference between the EU-Russia regional and national dynamics?

- What are the limitations of the EU-Russia regional cooperation? Could you please speak about possible scenarios of the future of the EU-Russia regional cooperation?

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