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### ABSTRACT

The Arctic is changing rapidly. Recently there has been much hype about its huge potential hydrocarbon resources, the bulk of which are located on the Russian continental shelf. However, a hydrocarbon deposit is not the equivalent of a resource, because the process of turning a deposit into a resource often requires not only major financial investment, but also efforts to ensure that there is a suitable societal context to support such a process, including markets, relevant technology, and legal frameworks that secure ownership. This paper analyses the political and economic dynamics of developing the Shtokman field in the Barents Sea. By way of a case study of Russian oil and gas politics in the Barents region, the paper highlights obstacles to building a network of actors that could support visions of turning Arctic oil and gas into an important economic and geopolitical resource for Russia. It also emphasizes the interplay between investments in a particular project and the larger geopolitical, ideological and economic context in which such development takes place. As background for the case study, the paper briefly reviews Russian and western literature on Soviet and Russian interests in the Arctic region.

## ACKNOWLEDGEMENTS

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#### **1. INTRODUCTION**

The Arctic is changing rapidly. The impacts of climate change on the physical landscape are dramatic, with rapidly declining sea ice as an iconic example. The environmental changes are accompanied by hype about new resources becoming available, including the vast amounts of hydrocarbons on the Russian continental shelf, in spite of the irony that the use of fossil fuels contributes to further warming of the region. Increasing global demand for resources is combining with visions of new sea routes and industrialization in such a way that it is difficult to know what the future has in store. It is thus increasingly important to understand the political dynamics of resource exploitation, including the issue of when, why, and for whom Arctic hydrocarbons become a resource.

It is a major governance challenge to respond to the ongoing transformation of the region; one that requires understanding of not only the future physical changes in the landscape but also the politics that are shaping the Arctic's future. Which voices are most influential in shaping that future, a decade or two hence? What are the economic, geopolitical and security interests at stake? What role does the global context play, including market dynamics and conditions for international cooperation? Why do certain actors get a voice and what means do they use to project it? What are the structures that amplify some voices but stifle others? One way to address these questions is to focus on some of the important actors in the Arctic and how they articulate and further their ambitions in relation to central issues around the Arctic's future. This paper examines an issue that has received considerable media attention in recent years: Russian oil and gas resources in the continental shelf of the Barents Sea.

It should be noted that hydrocarbon resources are not equivalent to hydrocarbon deposits. As emphasized by Gavin Bridge (2009), resources are socially constructed, in that they constitute "cultural appraisals of utility and value" (p.1219). Viewing resources in this way opens for analysis the question of *how* they are constructed, by whom and for whom? As elaborated by Avango, Nilsson and Roberts (2013), such questions can help us better understand the future of the Arctic region not as one determined future, but as different potential futures articulated by voices in actor networks and realized only to the extent that such a network can muster sufficient support for its ideas. In the Russian part of the Barents Sea, visions of the future have included grand plans for offshore exploitation, at the same time as actual activities have been halted several times. It is an illustrative example of how resources are constructed, and that such construction takes place in context of competing interests articulated by different voices. The paper places current development into a longer historical context of Russia's interests in the Arctic region, and, based on both Russian and non-Russian sources, illustrates the cultural and political appraisal of Barents Sea offshore oil and gas as a resource.

This paper is part of a larger project, *Assessing Arctic Futures – Voices, Resources and Governance*, funded by the Swedish Foundation for Strategic Environmental Research (Mistra). A key aim of the project is to reveal why some voices become influential in shaping Arctic futures, while others are subdued.

#### 1.1 The role of actors

Climate change is not the main driver of the current rush to exploit Arctic hydrocarbon resources, as one might believe from many media accounts. To understand the politics of the region, it is much more fruitful if we realize that visions of the future are often the tools of actors with specific interests. Actors build networks to further their interests and consolidate their authority, which gives their views of the future greater legitimacy. By focusing on actors

and networks, we can see how interests are created, aligned, and sometimes manipulated. It opens up the future to critical analysis. As shown by Callon and Latour in their writings on actor network theory (ANT), the construction of networks is a process of translation in which a problem becomes defined in a certain way and resources are mobilized to make a certain trajectory of development more likely (Callon 1986; Latour 1987). The network becomes the tool by which a central actor can make others follow its priorities and framing. The ANT framework includes attention to both social actors and non-human actors, such as technology or different aspects of the natural environment. This makes ANT especially relevant for analyzing the politics of the Arctic, where current developments involve both political interests and changes in the physical environment, such as declining sea ice. A key issue in understanding the Arctic today is to unravel how actor networks are evolving in response to new circumstances.

Taking the Russian Federation as its starting point, this paper unravels the translation process in a network that could play an essential role in future exploitation of offshore resources in the Barents region. Russia is a major producer of oil and gas for the world market, most of which is currently produced in western Siberia. The Barents region is seen as a key new space for hydrocarbon production. Two major offshore projects are in advance planning in the Russian part of the Barents region: the Prirazlomnoye oil field and the Shtokman gas field. The paper focuses mainly on the Shtokman field where decisions on investments have been postponed several times. The case illustrates how the path towards a particular future is constrained by contexts that are out of reach even for quite powerful actors. It provides reason to reflect on the climate determinism that is prevalent in many description of the Arctic future.

#### 1.2 Structure of the paper

Following this introduction (Part 1) the remainder of the paper is divided into three parts. Part 2 provides a brief historic review of Russian state interests in the Arctic region, based on published literature, to provide context for analyzing current developments. Part 3 presents a case study of the contemporary Russian oil and gas politics in the Barents region, viewed from the perspective of actor network theory (ANT). Part 4 places the case study into a broader context by discussing conditions and constraints that are outside the immediate reach of the central actors but nevertheless define actors' maneuvering space (McAnulla 2002, p.271). In the discussion, we relate this maneuvering space to ongoing structural changes in the circumpolar North and in global energy markets, However, the paper does not seek to analyze such changes within Russia in any depth; rather, its main purpose is to provide new insights about factors that are likely to play a role in the development of Russian oil and gas exploitation in the Barents region by identifying some of the major actors and how their interests are linked. These insights can be seen as one part of a picture that can provide a better understanding of the current rebuilding of the Barents region, especially the interests that are likely to define it if visions of the Arctic as a major source of oil and gas are realized.

#### 2. SOVIET AND RUSSIAN STATE INTERESTS IN THE ARCTIC REGION

This section reviews the evolution of Soviet/Russian state interests in the Russian Arctic during five historical periods, from 1917 to the present.<sup>1</sup> The analysis is based on Russian and

<sup>&</sup>lt;sup>1</sup> Definitions of the Soviet and Russian Arctic and the Far North have shifted over time. The Arctic is currently understood to, in whole or in part, include the territories of the Sakha Republic (Yakutia); Murmansk and Arkhangelsk oblast; Krasnoyarsk Kray; the Nenets, Yamalo-Nenets and Chukotka

western literature covering Soviet/Russian state interests and policy in the fields of economics, security and energy. With respect to military and security issues, the review is limited to general state interests and does not include issues related to military capacity in the North (e.g. the Russian Northern fleet, military equipment, officers and bases).

#### 2.1 1917–1960: Soviet policy with focus on identity and resources

The Arctic (and the Far North) played an important role in the building of the Soviet Union, both as an image and as a source of resources long before the interest in its hydrocarbon deposits. Soviet literature on the early policy of the Communist Party (1919–1940) in the Arctic region falls into two types. The first type covers the history of Arctic exploration, including writings about polar expeditions that describe work and life at the North Pole (Fedorov 1979; Yakovlev 1975; Zenzinov 1944). Although this literature most often focuses on chronological descriptions, it sometimes contains information about the aims of the polar expeditions and is therefore useful for understanding the importance of the Arctic region to the state, and its interests in it. This literature should be viewed in its historical context, which is one of Soviet nation building as well as tight control of media (Fitzpatrick 1999). Throughout the 1930s books and broadcasting programmes played a role in creating an "Arctic myth", by portraying a glorious conquering (osvoenye) of the North. According to McCannon (1998, p.82) these narratives describe the Soviet worldview during the Stalinist period, including how the USSR perceived itself and its place in the world, as well as attitudes on the relationship between individuals and the state. In terms of foreign policy, Arctic exploration was used to boost state prestige in the international arena by projecting images of a peace-loving nation, with civilian rather than military Arctic exploration in the limelight. The picturing of polar explorers also contributed to Stalin's heroic "paradigm of the New Soviet Man" - a model for all to emulate (Ibid, 98). About 80 years later Baev highlighted the similarities between Stalin's Arctic identity-building policies launched in 1930s with contemporary calls by the Russian government for marine border extension in the Arctic (Baev 2007).

The second type of literature examines Communist Party politics in the Arctic region, including the priority to industrialize the Russian North and to develop the Northern Sea Route (NSR) (Papanin 1978; Bulatov 1989). This Soviet literature often features vivid Marxist rhetoric. Official Soviet literature emphasized that socialism was the only system which could develop the Arctic in the interests of mankind as a whole, while western countries were described as being solely interested in the region's financial potential (Horensma 1991).

Economic interests discussed in the literature relate to the country's industrialization and transport development, which represented a vital part in the state's Fourth Five Year Plan (Novikov 1956; Belov 1957). Several writers outside the Soviet Union also highlighted the focus on economic development. For example, in outlining Soviet politics in the Arctic from 1919 to the mid 1930s, Ball (1933) notes that economic reasons (i.e. fulfilment of the Five Year Plan) motivated the Soviet government to start massive exploration and development of

Autonomous Okrug, as defined by the USSR Council of Ministers State Commission on the Arctic, dated 22 April, 1989. It also includes the lands and islands mentioned in the Decree of the Presidium of the Central Executive Committee, dated 15 April, 1926, internal waterways, territorial waters, exclusive economic zone and the Russian Federation's continental shelf, within which Russia possesses sovereign rights and jurisdictions (Russian Federation 2008).

the Arctic territories (Ibid, 532). In the 1950s, the discovery of large mineral resources led to future visions of mastering the inland northern territories, which also included construction of new cities (Kalemeneva 2013, manuscript).

A recurring topic in Soviet literature on the Arctic is the development of the Northern Sea Route. According to Vize (2008), until 1917 interest in exploring the route was mainly expressed by private entrepreneurs. The Tsarist government only paid attention to it – and northern problems in general – when there was a direct external threat or in the event of an aggravated international situation. With the shift to Soviet power, state focus on the Northern Sea Route dramatically increased. Vize notes that the aim of the Soviet government was to convert it into a permanently accessible communication and transport route to deliver goods abroad and to the European part of Soviet Russia. Interestingly, Vize also notes that even as early as the 1920s, climate change was seen as one of the reasons for increased interest in the northern navigation.

As for military security interests, the "open" Soviet literature focussed on government interests in the Northern Fleet capacity. However, Smolka (1937) defines early Soviet interest in developing the Northern Sea Route in terms of military security. As for non-Soviet literature, Armstrong (1955) also mentions the enlargement of military activities as a driver for government plans to develop the Northern Sea Route. As a more general observation, Vartanov and Roginko note that Soviet priorities for Arctic space were closely related to international relations in the region long before World War II and the Cold War, when the Arctic became an arena for military confrontation between the East and West (Vartanov and Roginko 1990, p.70). In the post-war period, the Cold War and the accompanying ideological struggle between East and West is the dominant context for Soviet activity in the Arctic.

Thus, economic interests in the region's resources appeared to be a major driver for early Soviet policy in the Arctic. These economic interests relate both to extraction of minerals and to navigation. Several Soviet and foreign authors also point to military factors as a motive force.

#### 2.2 1960–1990: Emerging Soviet interest in hydrocarbons

In the 1960s, both Soviet (Gramberg et al. 1967) and western (Armstrong 1963) literature begin to mention the potential for exploiting oil and gas reserves in the central part of the Russian Arctic, eastern Siberia and the Barents Sea.

In the book *Northeast Arctic Passage*, Butler (1978) makes several forecasts about future Soviet Arctic development. He predicts that the Soviet government would soon begin to explore and exploit the continental shelf, and that it would use the Northern Sea Route as a major artery for transporting equipment for hydrocarbon extraction, and possibly also for transporting extracted raw materials abroad. Butler also makes some predictions about the involvement of foreigners in Soviet Arctic exploitation, including Japanese participation in timber extraction, as well as proposals to tap Siberian natural resources, which probably indicated participation of foreign investment in terms of aid contributing to massive Soviet projects in the north.

In western literature discussing Soviet-Norwegian relations, Archer and Scrivener (1982) describe energy cooperation between the two countries, with Norway providing offshore equipment and knowledge to the Soviet Union for use in the Barents Sea. Archer and Scrivener also highlight the role of military issues in the relations between the two states,

especially the unresolved maritime jurisdictional disputes and in the situation around Spitsbergen.

The 1980s was a period of big transition in the Arctic region, in both Soviet and international politics. In his 1985 article "The Age of the Arctic", Young predicts that the political dynamics are about to change and include a future shaped far more by public policies than by the free play of market forces or other private-sector considerations (Young 1985, p.177). For Soviet policy and for international cooperation, a key turning point was Mikhail Gorbachev's 1987 "Murmansk Speech" (Åtland 2008), which set the stage for diplomatic activities that led to the current structure of circumpolar international governance (Young 1998). Soviet scholars Vartanov and Roginko (1990, p.71) conclude that the speech reflected a broadening understanding of Arctic development, in that economic growth and environmental protection were both, in considerable measure, contingent on controlling the arms race. The authors emphasized that the Murmansk initiative indicated a profound change in the priorities of the Soviet policy – a shift from a focus on resources and (to some degree) scientific concerns to prioritizing the social domain (Ibid, 72). The Murmansk speech also addressed the issue of peaceful cooperation over Arctic resources. In his book The Soviet Arctic, written before the collapse of the Soviet Union, Horensma stated that the Soviet Arctic would soon cease to be the "secret empire" (Horensma 1991, p.178), indicating a new situation for foreign involvement in activities in the Soviet North. Not all western analysts were as optimistic as Horensma. In an examination of the Murmansk speech, Archer (1988) raised questions about whether the Soviet government would actually be willing to allow foreign companies to work in a very sensitive defence zone. Moreover, he pointed out that some of the offshore technology that the Soviet Union may have hoped to obtain from the West could have military uses, and may therefore be covered by strategic export restrictions (Ibid, 49).

In summary, after the end of the World War II, the Soviet government still perceived the Arctic as a vital for the country's economic growth, but a discussion about the role of foreign investment was also emerging. Security and geopolitical interests go hand in hand and were initially mainly discussed in the literature on Soviet military capacity and relations with the United States. However, links between the different interests became increasingly visible, especially after the Murmansk Speech in 1987. This landmark statement brought a shift in both Soviet and western literature from emphasizing economic and military interests toward environmental issues and prospects for international cooperation, for instance in the energy sector (Archer 1988). Soviet scientific interests had various aims, such as increasing knowledge about the region and guaranteeing security by demonstrating a presence in the region. A focus on scientific cooperation also enabled the Soviet Union to portray itself as a peace-loving nation.

# 2.3 1991 to the present: Russian gas and oil interests in the context of social and geopolitical interests

The fall of the Soviet Union in 1991 and the economic and organizational turmoil that followed had huge implications for Russian ability to act on its interests in the North. There was a sharp decrease in the number of Russian geological surveys and expeditions to the Arctic region and, as a consequence, a reduction of publications on the Russian North. Chilingarov and Kokorev (1997) wrote one of the major Russian publications on the subject in the late 1990s. It covered Arctic exploration, the economic and ecological situation in the Russian North, ethnic problems, geopolitical perspectives, and the future development of the area.

A new theme in the Russian literature of this period was indigenous peoples and opportunities for regional cooperation. Examples include the works by Nikolaev (1999) and Bakhtin (1993). Nikolaev emphasizes the need for the state to change its approach toward indigenous peoples (Nikolaev 1999, p.55). Three consecutive state schemes illustrate the change in its approach over time: assimilation, state paternalism and partnership. According to Nikolaev, the first two options fell away during the Soviet period, while partnership is described as promising, based on experiences in Canada and the United States. Nikolaev describes the essence of the "partnership" approach as the creation of indigenous self-governed structures with legal support from the government.

Following the ideals expressed in the Murmansk speech, international cooperation alongside social and environmental issues became important themes in both Russian and Western literature in 1990s (e.g. Young 1992). However, some authors still focused on remaining tensions in the region. In particular, Åtland (Åtland 2007) discussed the re-securitization of Russian interests in the European Arctic after the Cold War, stating that Russia's military ambitions in the North were still high (Åtland 2007, p.501). According to Åtland, the Russian government still considered the U.S., NATO and northern European states as a threat to the security, natural resources and shipping routes in the Arctic region (Ibid, 524).

The beginning of the 21st century saw both Russia and other interested countries focus increased attention on the Arctic. In the book *Arktika: Interesi Rossii i Mezdynarodnie Yslovia Ich Realizatsii* [*Arctic: Russian Interests and International Conditions for Realization*] (Mogilevkin et al. 2002), Russian scholars specializing in international law and social science examine a range of issues in Russian Northern politics since the collapse of the Soviet Union, including geopolitics and defence, as well as legal, economic, scientific, and environmental issues. The authors stress a need for a new policy strategy for Russia, and for the state to reorient itself towards the East and North to restore the position in the Arctic that the country lost in the 1990s. The formulation of the new strategy is also linked with the need for international scientific cooperation in the region that would serve Russia's interests. The authors stress the necessity for a new Northern strategy, reflecting an emerging discussion in the Russian government (Kazakov and Klimakova 2010, p.37).

In addition, a number of Russian articles have been published on the substance of the Russian policy strategy in the Arctic region. For example, Piliasov (2010) and Litovka et al. (2006) investigate the evolution of Russian policy in the North since the 1990s, and discuss different scenarios for future regional development. These range from inertia (i.e. continuation of the existing policy), to an innovative scenario prescribing closer cooperation with other Arctic states. Contemporary Russian texts discuss several dimensions of Russia's interest in the Arctic, including economics, geopolitics, energy and security as developed in more detail below.

*Economic interests:* A major theme is economic interests, which encompasses the issues of Arctic resources extraction, regional development, and the Northern Sea Route. An example is the analyses by Istamon, Pavlov and Selin (2008; 2009) and Filipov and Zhukov (2006) of the contemporary socio-economic situation in the Russian North. A number of articles discuss the importance of Northern regions for the Russian economy as a whole (Selin 2010; Selin and Bashmakova 2010). This literature analyzes the resource base of the Russian North, and notes that natural resources in the Russian Arctic zone, and the potential for transport, could contribute to the country's economic modernization. New ways of organizing economic activity related to resource exploitation are also discussed, such as in the monograph by Nikolaeva and Selin (2009) that examines basic principles of establishing special economic

zones, based on analyses of global and national experience. The book focuses on economic trends in the exploitation of the hydrocarbon fields on the Arctic shelf and the port systems in the North. It also examines what Russia's accession to the World Trade Organization would imply for the region.

Several articles focus on the situation in specific regions and cities in the Russian North, evaluating existing problems (the need for socio-economic change) and possible solutions, including the consequences of Arctic natural resource development on Murmanskaya oblast (Gerashenko 2011). Sergeev (2001) analyzes the implications of hydrocarbon extraction and transportation for the region's economy, as well as the development of the Russian petroleum sector and its implications for the economy of the entire Barents region.

*Geopolitical interests:* Several authors investigate Russia's geopolitical interests in the Arctic. One example is the work by Golubchikov and Yerokhin (2003), who suggest that the Russian North is Russia's most important geopolitical resource, without which sustainable development in the modern world would not be possible. They also analyze the social and ecological consequences of industrial development in the region, and propose several routes forward for post-industrial development, in particular the need for the state to protect the environment.

The geopolitical themes sometimes interact with economic and energy issues, such as the article "Geopolitical preconditions for Russian Arctic economic development", in which Savelieva and Shian (2010) discuss issues of resource extraction and delimitation of the Arctic continental shelf.

Contemporary views of the Northern Sea Route are presented by Granberg and Peresipkin (2006) and Istomin and Kiselev (2005), who forecast the future for the route and its importance for trade, industrial development and energy sector. The literature also analyses a scenario for transport infrastructure in the North, which aims to address financial, economic and social problems.

*Energy interests*: Popov and Popova (2002) and Bashmakov (2011) discuss the substance of the contemporary Russian energy policy, where the Arctic is mentioned as a vital future resource base to guarantee Russia's further sustainable economic development and the country's status as a reliable energy supplier.

Several articles (Korzun 2004; Konishev and Sergulin 2011) take up legal aspects of Russian Arctic policy with respect to delimiting the Arctic continental shelf and Russian relations with other states (Norway, Canada and the U.S., in particular). In the book *Great Arctic Repartition*, Lukin (2010) describes the history of international struggle for the Arctic in three stages. The final and most significant stage is occurring today. The book's main emphasis is on protecting of Russian national interests in the region.

*Security interests*: (Belozerov 2009; Kozmenko and Kovalev 2009)) discuss security issues related to the Arctic, linking the questions of hydrocarbon extraction, use of the Northern Sea Route, and policies to increase military presence in the North with Russian security interests in the Arctic region.

To summarize, the change in the governmental policy towards the Arctic in the early 2000s has resulted in an increase in Russian publications about the region (Kazakov and Klimakova 2010). The most prominent issue has become Arctic offshore hydrocarbon exploration, which has been linked to regional economic development, security issues and geopolitical interests of the Russian state.

The past few years have also featured an increase in Western publications about Russian Arctic policies, particularly about international relations and geopolitics in the region. The book *Russia and the North* covers the issues of cross-border cooperation, cooperation between Russia and Norway in fisheries sector, obstacles to regional development, such as population migration, and prospects for offshore exploitation (Rowe 2009). Rowe claims that because the North is tightly linked to Russia's international policy and economic interests it is kept on the Russian federal agenda, where political interest and involvement has been lacking in the period following the fall of the Soviet Union (Ibid, 207). Blank (2011) focuses mainly on Russia's energy interests in the region as the main motive force for state action.

Much of the contemporary non-Russian literature examines perspectives on offshore exploitation of Arctic seas. Brunstad et al. (2004) focus on development in the Barents region in light of hydrocarbon extraction based on three scenarios: "Big Oil Playground" (focus on contemporary Russian oil and gas politics), "Russian Bear Preserve" (about Russian government policy on maintaining control over the oil and gas sectors) and "European Periphery" (about problems and obstacles for future development of Russia's northern regions). Several Norwegian authors analyze the links between Russian and Norwegian hydrocarbon development. For example Moe (2010) highlights the lack of coherent policy on Russian offshore development, and that the lack of certainty around the potential for foreign investment has meant in practice that foreign interests have been kept at arm's length. Moe also notes that the delimitation agreement to solve the jurisdictional disputes between Norway and Russia over the Barents Sea are likely to support further peaceful cooperation between the countries, and may lead to possible joint exploration of deposits that cross the new boundary line. Jensen and Skedsmo (2010) compare Norwegian and Russian Arctic policies and conclude that the Russian approach is less coherent, or at least less based on a broad discursive mobilization. However, they conclude that both countries "regard the European Arctic's potential as a future energy province to be the region's most prominent aspect", and that in spite of some differences there is enough common interest to provide a "favorable climate for extended future cooperation".

A theme in the Nordic literature on contemporary Russian Arctic policies is the importance of Barents regional cooperation (e.g. Hønneland 2010), with a focus on regional development, fisheries management and environmental cooperation. Heininen and Nicol (2007) write on the importance of Russia in the EU's Northern Dimensions Programme, pointing out that is has become "a more equal partner" in the second version of this programme, as well as more generally in European energy politics. Heininen (2010) has also described the new Russian policies towards the North as a Russian version of the EU's and Canada's northern dimension policies, and describes this as "a metaphor for a new kind of relationship between the capitals and the northern peripheries of the Arctic states".

Overall, the non-Russian literature of the contemporary period reflects the major issues highlighted in the Russian literature. In terms of economic development, much emphasis is placed on hydrocarbon exploitation and regional cooperation. Russia has of course also figured prominently in both the media and scholarly analyses that followed after the planting of the Russian flag on the sea floor at the North Pole in the summer of 2007. However, a review of this literature is outside the scope of this paper because it focuses more generally on the geopolitics of the Arctic region. Key aspects of the Russian perspective are presented in part 3.

#### 2.4 Summary

This brief literature review reveals strong continuity in Russian Arctic policies and interests, as well as some major shifts. Throughout the history of Soviet/Russian Arctic exploration and development, Soviet/Russian state interests have defined its pace and scope. Economic development has always been a major motive force behind Arctic exploitation. In the Soviet period, the focus was on industrialization and on developing shipping routes and, starting from 1960s, the prospect of offshore hydrocarbon exploitation emerged. In the contemporary Russian literature, the focus is on internal socio-economic development, while contemporary non-Russian literature is more oriented towards hydrocarbon exploitation. This picture is very similar to that presented by Emmerson (2010), who states that the Soviet period featured a widely held and state-sanctioned belief that the Arctic wilderness must be conquered and pressed into service. Even in contemporary Russia, this "vision of the Arctic as a source of material strength and national power – rather than simply a wilderness of ice – remains very much alive".

Military issues have been vital to state Arctic policy, especially after World War II, but have not been much covered in the open Soviet literature. After the end of the Cold War, security interests have been linked with economic interests, in terms of offshore hydrocarbon exploitation and development of the new shipping routes.

As for future Arctic development, both Russian and non-Russian literature forecast an increase of economic activity (e.g. hydrocarbon exploitation and use of the Northern Sea Route), even if opinions vary about pace of development and how long-lived it will be.

# 3. RUSSIAN INTEREST IN OFFSHORE HYDROCARBON EXPLOITATION IN THE BARENTS REGION: A CASE STUDY

The purpose of this case study is to better understand how different interests are shaping Russian hydrocarbon activities in the Barents region, especially within Russia. Following a brief description of hydrocarbon resources and their significance to Russia, the links between two major actors – the Russian state and the company Gazprom – are presented with focus on how their activities and interests relate to each other and to the global energy market. The analysis is structured according to different stages of formation of actor networks.

The case study is based on an analysis of official Russian policy documents and legal texts, along with statements published in the open literature by Russian government officials and spokespeople for oil and gas companies. The empirical material spans the period 2000 to December 2011, with some additions from 2012.

#### 3.1 Hydrocarbon resources and their exploitation

Russia's interests in oil and gas in the Barents region go back to Soviet times. Minor Arctic hydrocarbon production began in 1953, with exponential growth of both oil and gas production from 1965 onwards (AMAP 2010, sec.2.4.7). Most of this activity has taken place onshore in Western Siberia, which has the largest hydrocarbon reserves in Russia. For offshore reserves in the Barents Region, systematic studies started in the 1960s and increased greatly in the 1970s. Exploratory drilling began in 1981. In 1988 the Shtokman field was discovered. The C1 (evaluated) reserves of the field make up 3.9 trillion cubic meters of gas and 56 million tons of gas condensate.<sup>2</sup> Prirazlomnoye field was discovered in 1989. This

<sup>&</sup>lt;sup>2</sup> http://www.gazprom.com/about/production/projects/deposits/shp [Accessed 5 Dec. 2012]

field contains 72 million tons of oil reserves.<sup>3</sup> In the 1990s, there was a sharp decrease in geological surveying due to lack of state funding, and the oil and gas production that was carried out relied on wells discovered during the Soviet times.

Several intersecting interests have given rise to renewed activity in recent years. The major factor is the enormous importance of the oil and gas resources in the North for the Russian national economy. Russia exports around 70% of its oil and 30% of its natural gas (Solanko 2011), and income from this export has been one of the major drivers of growth in the Russian economy growth over the past decade, following an increase in production and rise in oil prices. The state budget, which receives money from taxes on natural resource extraction and exports, is dependent on the world market price for crude oil. According to Vladimir Putin (then Russian Prime Minister), 50% of federal government revenues in 2010 derived from the energy sector (Strukova 2011). This strong reliance on energy export has made the national economy vulnerable to fluctuations in crude oil prices on the world market.

In addition to the importance for the national economy, the Shtokman project has presented oil and gas developments as key to regional economic and social development in the Russian North (Selin and Bashmakova 2010). The project website has quoted Oleg Krapivin, Chairman of the Committee for Industrial Development, Environmental Protection and Nature Management, Murmansk Region, as noting that the regional government hopes first and foremost that the implementation of the Shtokman project will have a major effect on the development of the region's core industries.<sup>4</sup> The website has also spoken to international energy security concerns, quoting Russian Foreign Minister Sergei Lavrov saying that Russia sees development of the Shtokman gas/condensate field not only as a long term, major investment in bilateral partnership, but also as a contribution to strengthening international energy security, first and foremost in Europe. Based on a statement from the Security Council, Russian Arctic oil and gas resources also appear linked to Russia's geopolitical interests of restoring political clout after a period where it lost its status as superpower. However, Russian interests are not necessarily shared by all relevant actors, thus the Russian government needs to entice others to act in ways that further its interest.

#### 3.2 Analytical framework: Establishing an actor network

One way to elaborate on the links between different interests is to follow how actors build networks to further their own specific vision of the future. Many future visions (perhaps most) are not realized, and studying the different steps of network building is a way of revealing both how interests are framed and how different framings relate to each other. It is also a way to critically analyze "futures" rather than accepting visions as deterministic. As becomes apparent in this case study, the vision of the Arctic as a region of valuable resources is filled with assumptions that may or may not be realized.

According to the analytical framework of Actor Network Theory (ANT), establishing an actor network is a four-stage process, in which a central actor creates a situation where all other relevant actors agree that the project is worthwhile and are willing to invest in its continuation. At the same time the margins for manoeuvre are defined and delimited (Callon 1986). The four stages are:

• **Problematization (problem definition)**: the network builder defines a problem and how it can be solved. This stage also includes defining the relevant actors (i.e. who it

<sup>&</sup>lt;sup>3</sup> http://www.gazprom.com/about/production/projects/deposits/pnm [Accessed 5 Dec. 2012]

<sup>&</sup>lt;sup>4</sup> http://www.gazprom.com/about/production/projects/deposits/shp/ [Accessed 5 Dec. 2012]

is that can solve the problem). ANT highlights how an "obligatory passage point" is created to force all relevant actors to converge on a certain topic, purpose or question and thereby mediates all interactions between actors in a network and defines the action programme. An obligatory passage point can be thought of as the narrow end of a funnel that forces the actors to converge on a certain problem and set of actions.

- **Intressement**: the network builder creates resources that can persuade other actors to agree with their problem definition and support their solution to the problem This phase also includes defining the roles of different actors and negotiating the conditions of their involvement.
- **Enrolment**: acceptance of the roles by actors that have been defined in the previous stage.
- Mobilization: when a network starts to operate in order to achieve its objectives.

Below is a description of the interactions between the Russian government and other actors in the process of establishing a network. One of the key actors is the Russian state company Gazprom, but other actors also need to be convinced in order to raise capital and to develop technology for offshore gas and oil exploitation in the Arctic. A market with customers willing to buy oil and gas are also needed.

#### 3.3 Problematization

Putin's claim that half of federal government revenues derive from the energy sector are at the core of the problem definition, from the point of view of the Russian state. Russia's oil and gas production is mainly concentrated in Western Siberia (AMAP 2010), but exploitation of these resources in past decades has led to a situation where they are expected to gradually dwindle. The 2011 "Russia Oil and Gas Report" states that, in the future, an increasing share of production will have to come from outside the traditional gas heartland of Western Siberia (Business Monitor International 2011) This prospect, given the reliance on revenues from natural resources, could have large implications for Russia's economy and is the context for current government policy. In a 2008 Security Council Meeting, then Russian president Dmitry Medvedev stated Russia's aim "to convert Arctic into Russian resource base of the twenty-first century" (Ilyin 2008).

According to some estimates, the Russian continental shelf contains 90–100 billion tons of original recoverable oil and gas reserves, which is 20–25% of the worlds hydrocarbon reserve (AMAP 2007, p.2\_148). Arctic offshore hydrocarbon resources thus represent a vital potential resource base, and Medvedev's 2008 statement represents a problem definition where Arctic resources are to complement the declining hydrocarbon production in West Siberia.

The economic importance of oil and gas is closely linked to the issue of rights to possession of hydrocarbon resources, and their extraction and transportation routes (pipelines). Once Russia has framed Arctic offshore oil and gas fields as a natural resource base key to the national interest, it becomes essential for the state to control those resources. To ensure that other actors support the project, it would be imperative that the Russian state becomes an obligatory passage point for all other interests. One of the major actions tools that the Russian government has used to define the behaviour of other actors is to adopt new federal legislation.

A review of changes in federal legislation since the 1990s reveals in more detail the actions related to problem definition. This includes paragraphs in article 72 of the Constitution of the Russian Federation that deal with possession, use and disposal of natural resources and the

current federal law. According to the 1992 law "On Subsurface Resources" (Russian Federation 1992), natural resources in the subsoil are state property, and subject to joint jurisdiction of the Russian Federation and its subjects. Moreover, article 5 of the Federal Law "On the Continental Shelf" gives the Russian Federation exclusive rights to these resources, stating that "these rights are exclusive in the sense that if the Russian Federation does not explore the continental shelf or exploit its mineral resources, no one can do it without the consent of the Russian Federation" (Russian Federation 1995 Article 5). According to the law, individuals or legal entities of the Russian Federation, or foreign individuals and legal entities, individual entrepreneurs, including participants in partnerships, may be subsoil users, unless federal laws provide for restrictions (Russian Federation 1995 Article 7; Russian Federation 2000 Article 9). In 2004, a law was passed that reduced regional authorities' influence on license granting and access to obtain revenues from hydrocarbon production (Mineev 2010, p.314). This legislation also provided for some restrictions on foreign investments.

The Russian government has relied on state-owned companies for exploration of natural resources. In 2008, it legally limited those actors working offshore to state companies with at least five years' experience from work on the continental shelf – in practice, this means the companies Rosneft and Gazprom (Moe 2010). Gazprom holds licences on the first Russian Arctic offshore projects in the Barents region, in the Shtokman and Prirazlomnoye fields. In this paper the interaction between the Russian government and state-owned gas company Gazprom will be the main focus.

#### Markets

Given the way that the Russian government has defined the problem, which includes a link between Russian natural resources and foreign markets, a range of other actors need to be included in the network. Of central importance are the major costumers for Russian petroleum exports. Two major markets of interest to Russia are the European Union and Asia.

At present, the EU represents the only large gas market for Russia (Kavalov et al. 2009, p.10). Russian gas accounts for 40% of Europe's imported gas, and for 6.5% of the EU's total primary energy supply (Noël 2008). According to the 2011 World Energy Outlook, the export of Russian gas to Europe will increase slowly, reaching around 235 billion cubic metres (bcm) in 2035, compared with 200 bcm in 2010 (International Energy Agency 2011, p.284).

The gradual depletion of North Sea hydrocarbon reserves, a more critical stance towards nuclear energy (after the accident at the Fukoshima nuclear station in Japan), high costs for renewable energy production, and increasing use of gas as a motor fuel mean that gas supply from external markets remains at the heart of European energy security. The International Energy Agency (IEA) forecasts an increase in energy consumption in Europe from 100 bcm up to 640 milliard of bcm (International Energy Agency 2011). The EU's interests in Russian offshore projects in the Arctic are therefore linked to securing gas supply for European customers.

In addition, the French company Total has commercial interest in the Shtokman project, which has been described a way to increase Total's share in the Russian market (Promishlennie vedomosti 2006). Since 1995 Total has operated in the Kharyaga oil field in Nenets Autonomous District. In 2011 the company increased its share from 12% to 20% in the Yamal project to exploit liquefied natural gas (LNG), which it is going to operate together with another Russian gas company Novatek. As for the Shtokman project, in 2007 Gazprom signed agreement with Total and the Norwegian company Statoil (named StatoilHydro prior

to 2009) to develop a first phase of the Shtokman project, mainly involving financing, construction and project operation. However, Gazprom did not give the companies the right to sell produced gas; this remains Gazprom's prerogative. In 2008, three companies established the Shtokman Development consortium, where Gazprom had 50% of shares, and Total and StatoilHydro had 25% and 24%, respectively. The involvement of Total has roots in business and bilateral relations between France and Russia, rather than in political relations between the EU, and is likely to represent the only direct business connection between the EU and Shtokman project (Øverland 2008, p.142).

From the Norwegian point of view, investments in the Shtokman field has been related to an expectation of dwindling supplies in the Norwegian fields and thus a search for new markets for Norwegian offshore technology (see e.g. Norweigan Ministry of Foreign Affairs 2006, p.14; Moe and Rowe 2008). In 2011, several new discoveries were made on the Norwegian part of the continental shelf, which would most likely affect Norwegian interests in Shtokman, at least in the short-term future.

At present, EU energy policy is aimed at diversifying the energy supply and reducing dependence on Russian gas, a major reason for which is concern about Russia as a reliable energy partner after the reduction of gas supplies in 2006 and the complete cut in 2009 (Eismont 2011, p.37). Russian pipeline projects are perceived within the EU as an attempt to tie Europe politically to Russia (Smith 2010, p.4). The recently launched Nord Stream pipeline across the Baltic Sea linking Russia (Vyborg) and Germany (Greifswald) could also be seen as an attempt by the Russian government to strengthen its hold over the European gas market and its energy security (Cohen 2007).

The development of non-conventional natural gas (shale gas) and import of liquefied gas from Qatar and Africa (mainly Nigeria) are seen as possible factors behind the reduction of the Russian share of the European market (Smith 2010, p.4). The implications of the changing structure of the natural gas market are not yet clear, but it has provided Europe with greater leverage in discussions with Gazprom about gas imports. Gazprom's interest is to keep export prices high for gas, linking them to the oil price (Oilcapital.ru 2011), which is also important for the Russian economy as a whole. Russia could potentially reduce prices and the cost of gas production in order to maintain its position on the European market (Smith 2010, p.4; Kulikov 2011). However, costs of future gas production in the Arctic, East Siberia and the Far East are likely to be higher than analogous costs of gas from Asia, Africa and the Asia-Pacific region (Kulikov 2011). On the other hand, established transport infrastructure (including cheaper pipeline systems) represents a competitive advantage for Russia suppliers.

Fast-growing Asian markets could become a foundation and a catalyst for Russian Arctic liquefied gas projects, as well as an option to diversify Russia's energy markets. Gazprom's plan has been to achieve LNG trading volumes of 62 million mt/year by 2030, with 18 million mt/year to be transmitted outside of Russia (Forster 2011). According to the International Energy Agency (IEA), Gazprom has considered transmitting liquefied gas from Shtokman field to the Indian market (Ibid, 387). A memorandum signed by Gazprom in June 2011 prescribed a supply of 7.5 m tons of liquefied gas to three Indian companies (Pettersen 2011). The volume of liquefied gas covered by the deal is equivalent to the forecasted annual production from Shtokman field.

#### Regional governments and suppliers

One motive for Russian government involvement in offshore hydrocarbon exploitation in the Barents region is to meet the demand for the regional economic and social development. In

terms of Actor Network Theory, this would require that regional governments share the problem definition of the federal government. A starting point is that regional authorities in Russia depend on the decisions and budget allocated from the federal government, but they also have to balance the policy interests of the federal government and local demands. Regional authorities are therefore interested in attracting investments from Gazprom's Arctic offshore projects, and have taken their own steps to secure regional benefits. For example, the regional government of Murmanskaya oblast has passed laws reducing tax on profits and property for the Shtokman project (Bellona 2011). The local authorities of Arkhangelskaya oblast have introduced similar measures for potential investments into the region. Local authorities have also promoted regional companies for project supply. According to the Department of Strategic Development at Gazprom, attracting national suppliers is part of Gazprom's interest in developing Russian technologies and knowledge and in preventing capital flow from Russia (Pravosudov 2010, p.15).

The issue of technology supply illustrates a delicate balance for both the Russian government and regional authorities. On one hand, there is a wish to make sure that economic benefits fall to Russia at both the national and regional level. On the other hand, Russia currently lacks offshore know-how and is dependent on partnerships with non-Russian companies. Since the beginning of the Shtokman explorations, several non-Russian companies have been engaged, including Norway's Statoil and France's Total. However, the tightened Russian regulations on foreign investment in this sector and uncertainties about allocation of tax benefits from the government create an uncertain situation for foreign investors, carrying the risk that they will withdraw, which Statoil did in 2012 (see section 3.5). The companies urged the Russian government to adopt tax breaks for the Shtokman project. In 2011, Jan Helge Skogen, the president of Statoil in Russia, did not see the Shtokman project as currently commercially viable (Amos 2011).

In summary, the Government of Russia cannot take for granted that all essential actors share its definition of offshore exploitation in the Barents region as being *mainly* an issue of national economic and security interests. Major competing framings relate to commercial viability as the main issue of concern and to the need for regional economic development. Legislation has been used to secure the government's position, but strong government control can also create conflicts in relation to the interests of other actors. Moreover, government control of actors is limited beyond the borders of the Russian Federation, in particular in relation to markets. One of the most critical issues is to balance Russia's national economic interests with the economic interests of Gazprom and possible foreign investors, without which actual production is unlikely to commence. The engagement of the essential actors is further explored in the discussion on intressement. Investments in physical infrastructure such as the Nord Stream pipeline could be viewed as a way of linking the EU more tightly to Russia's problem definition, where Russia becomes the guarantor of European energy security.

#### 3.4 Intressement

According to Callon (1986) *intressement* is the process by which the primary actor attempts to impose and stabilize the identity of other actors in the network. In this context, it means that the Russian Government has to ensure that all relevant actors agree and accept its solutions to the defined problem. The effectiveness of this process relies on the ability of the primary actor to transfer the problem definition by setting an obligatory passage point for other actors involved, so that they act in chorus.

For the Russian Government it has been especially relevant to ensure that Gazprom shares its problem definition, as this is a prerequisite for developing the Shtokman field. However, attracting state companies to start offshore exploitation creates a dilemma for the Russian government. It wants to keep high taxes on natural extraction and increase exports of natural resources, especially when the price of crude oil is high on the world market. The goal of gaining revenue from exploiting natural resources to bolster the national budget has to be balanced with a need to grant financial incentives for offshore petroleum exploitation. State companies may otherwise not be sufficiently interested in offshore projects, largely because of high investment costs and large uncertainties caused by limited experience in offshore exploitation and need to develop new technology to handle Arctic offshore conditions.

Gazprom's economic interests have mainly been linked to a long-term need to replace the depleting fields in Western Siberia, but going offshore in the Arctic is not necessarily the preferred option. Development of Arctic offshore hydrocarbon reserves requires high investment, whereas profits from hydrocarbon extraction will only be reaped many years in the future. Intressement involves negotiations, and Gazprom has claimed concessions from the government in terms of low taxation on exports of natural resources and their exploitation. Since 2008 Gazprom has been negotiating with the government for tax privileges for developing the Shtokman field, including introducing tax on additional income, reducing export duties and lowering taxes on mineral extraction.

One reason for the government's reluctance to make concessions has been opposing views within the government on Arctic offshore exploration. Also there are also groups within Gazprom with competing views on the company's future development. Therefore, the process of intressement should be viewed not only as a process between the Russian government and Gazprom, but also within the Russian government and within Gazprom. There have also been several external actors able to influence Gazprom's decision to go offshore. The process of intressement within the Russian government and Gazprom is examined in more detail below.

#### The Russian Government

As mentioned above, in 2008 the government adopted amendments to the subsoil legislation that limited rights on shelf exploration to only two state companies: Rosneft and Gazprom. However, the decision to impose this limit was made at a time when crude oil prices were high on the global market, before the economic crisis of 2008/2009. Shiriaev, a leading consultant of the Finekspertiza company, has noted that the world economic crisis adversely affected the investment programmes of Gazprom and Rosneft, and has led to a discussion about liberalizing access to offshore fields, regardless of ownership (Aliev 2010).

In 2008, the Ministry of Natural Resources and Environment initiated changes to the amendments adopted in 2008, mainly aimed at increasing the number of companies that were allowed to work on the continental shelf, investing more in geological surveys, and changing the existing taxation system. One reason for these changes was that Russian companies lack the money and technology to explore the continental shelf on their own, and need financial and technological support from foreign companies. It would be rather difficult for the ministry to implement the plan to increase production on the shelf by 110–120 million tons per year by 2040 without foreign participation (Bratersky 2011). According to the ministry, most offshore fields have not been cost-effective under the current legislation and at the current rate of progress it would require 150 years to explore the potential of the continental shelf (Melnikov 2011).

However, the ministry's proposed changes were not supported by the Ministry of Energy and the Ministry of Economic Development, who seems to have had opposite views on how to develop the Russian energy sector. The intressement process therefore had to involve persuasion of other ministries about the necessity to introduce changes in the subsoil legislation. In 2010 the Ministry of Natural Resources worked out amendments to the legislation that would allow broadening the number of companies that would have the right to work on the continental shelf. The Ministry proposed that decisions to grant licenses to exploit and explore the shelf should take into account both national and foreign experience. Also, the ministry proposed amendments that would allow companies with less state ownership to explore and exploit the shelf (Interfax 2011). Gazprom supported this effort to enlarge the list of companies. However, the proposal did not receive approval from the Ministry of Energy, which argued that the bill required additional improvement (Interfax 2011).

The disagreements between the ministries also covered the issue of financing geological surveys on the continental shelf. In 2010, the Ministry of Economic Development presented a new draft of the "State program on geological surveys of the continental shelf and exploration of its mineral resources for the period 2010–2039", which the Ministry of Natural Resources rejected. According to the Minister of Natural Resources, Trutnev, the proposed draft did not pay enough attention to geological surveying, and prescribed that already-discovered fields should instead be developed and exploited (Starinskaja 2011).

Work on the "State Program on the Russian Shelf exploitation up to 2030" was delegated to the Ministry of Natural Resources, which, in turn, presented a draft to the involved Ministries (Ministry of Energy, Ministry of Economic Development and Ministry of Industry and Trade) at the end of September 2011. Eventually, the Ministry of Natural Resources stated that the core ministries had reconciled all the disputed issues. The core ministries also collaborated with several Russian companies, including Gazprom, Rosneft and Lukoil, to work out a draft bill introducing tax privileges for companies working offshore (Starinskaja 2011). In the ANT framework this could be interpreted as part of negotiations on an intressement process.

The bill was supposed to be adopted by the end of the 2011, but was postponed due to parliamentary elections and uncertainty over the Shtokman investment decision. In December 2011 the Ministry of Finance announced that the decision on tax breaks for the Shtokman project would not be delivered unless Shtokman Development presented an investment decision (Starinskaja 2011).

#### Gazprom

Gazprom has several options in the Arctic for widening its resource base: either going offshore (Shtokman project), or developing onshore Arctic projects (Yamal project). For further onshore development Gazprom possesses technology, knowledge and finance, while offshore development requires attracting foreign investment and partners with relevant knowledge and experience, as this is lacking within the company.

Moe (2006, p.394) considers the choice between the Shtokman and Yamal projects to be a battle between different groups within Russia's petroleum sector and within Gazprom. The bulk of the company business is located in the Western Siberia. The Siberian lobby within the company has feared that the Shtokman project would take attention and funds from its area of interest, particularly from development of the Yamal project. Rafaelsen, the General Secretary of the Norwegian Barents Secretariat, has stated that both projects are equally important for Gazprom (Prokhorov 2011). However, Gazprom's investment programme for

2011 prescribed increased investment in Yamal projects, particularly in the development of Bovanenkovo field (Mazneva 2011). The company's plan was to start gas extraction in Yamal in 2012 (NewsProm.ru 2011). As for Shtokman, the decision on investment in the project has not been delivered yet and has been postponed several times since 2009.

#### Increased competition

In addition to the Russian government's reluctance to introduce tax privileges and the internal conflicts of interests within the Gazprom, changes in the global gas market have contributed to lowering Gazprom's interest in the offshore exploration. This has included a rapid growth of shale gas production in the U.S. during the past few years, which has made gas exports from the field to the North American market less likely. From 2008 to 2009, shale gas production in the U.S. increased by 71% (U.S. Energy Information Administration 2012).

Gazprom committed to developing Shtokman field after 2003, when liquefied natural gas (LNG) became prominent in the company's strategy, particularly directed towards the U.S. market (Moe and Rowe 2008). The loss of this market would thus have major implications for Gazprom's interest. In addition, Qatar reoriented LNG exports from the American to the European market, with implications for Europe as potential customer. This development, in combination with the world economic crisis of 2008/2009 that led to a decline in gas consumption, created a gas surplus on the world market and decreased the price of gas.

In summary, the intressement process has included negotiations within the Russian government and within Gazprom, as well as handling of market factors external to Russia. The analysis shows the need to analyze an issue such as hydrocarbon development in the Arctic at several scales at once and with attention to the linkages between scales.

#### 3.5 Enrolment and mobilization

In order to ensure that all actors share the goals of the network builder and are willing to use their respective resources to carry out the project, all relevant actors have to be properly enrolled, that is, all actors have to accept their respective roles. In the case of Russian plans for offshore petroleum development in the Barents Sea, it appears that a number of negotiations are still necessary to finalize this process. In particular, common ground would need to be found between the Kremlin and the both Russian and foreign companies that would carry out the development.

Tax reduction would make it more attractive for foreign and national companies to work offshore. In 2011, there appears to have been a strong drive within the Russian government to start Arctic offshore exploration. In November 2011, plans for tax privileges were included in the signed protocol that resulted from the meeting of the Russian-French Business Commission, chaired by Vladimir Putin and French prime-minister François Fillon (Belikov 2011). In a statement at the United Russia Party inter-regional conference in September 2011, Putin urged Gazprom to deliver an investment decision on the Shtokman project by the end of the year (Ibid). As for Gazprom, even if the company appeared to have an interest in the Arctic exploration, it was not then clear whether it would accept that tax privileges, as proposed by the Russian government, are sufficient to promote Arctic offshore exploration.

So far the incentives have not been sufficient for Gazprom to go ahead with the Shtokman project. Moreover, in August of 2012, Norwegian Statoil wrote off its investments in Shtokman and handed back its shares because an agreement could not be reached (Reuters 2012). On August 29, 2012, Gazprom announced that it would postpone its investments in Shtokman indefinitely (Marson 2012). Unless new opportunities arise, including agreements

with a suitable network with non-Russian companies, the hydrocarbon deposits in the Shtokman field are not likely to be realized as an economic resource for Russia. As summarized in a headline from The Guardian: "Plug pulled on Russia's flagship Shtokman energy project Soaring costs, falling European demand and cheap shale gas in America see Gazprom's ambitious Arctic scheme shelved"<sup>5</sup> (Macallister 2012). However, considering the strong economic and political interests from the Russian state, this is probably not the end of the story.

#### 4. DISCUSSION

The case study in Part 3 shows that the network of actors involved in exploiting Russian hydrocarbon deposits is still in the making. The Russian state is still negotiating with other actors that need to agree to its problem definition, and with respect to the Shtokman project, the negotiations have been halted and it is unclear when and how the network building process could resume. Central to the negotiations have been the issue of tax subsidies in relation to the companies that will make investment decisions – Gazprom in particular, but also the foreign partners.

In general, under current market conditions, offshore projects are not likely to move forward without some tax protection or other concessions that would make the necessary investments more attractive. Further analysis in this area should therefore continue to treat the Russian state and Gazprom as separate actors with different interests. The case study also shows that in this context the Russian state cannot be considered a single actor: different ministries have their own separate agendas regarding oil and gas resources in the Barents Sea. Gazprom, too, has different interests within it. Future analysis of other potential hydrocarbon projects in the Arctic might take these points into account.

In addition to the Russian Government and Gazprom, the case study identifies a number of other actors that play a role in the relevant networks. These include Norwegian and French oil companies as well as regional decision-makers and companies in the Murmansk and Arkhangelsk regions. Also important are decision makers in importing markets, such as the EU. However, one of the major challenges for the Russian project is the structural change in the supply of fossil fuels on the world market, and the supply of liquefied gas in particular. It was competition from North American shale gas that made it less likely that exports to the U.S. would be able to pay for investment because of a gas surplus on a global market. More recently, liquefied gas from Qatar has provided additional competition in terms of gas supply to the European market at lower spot prices.

In addition to continued analysis of short-term changes in Kremlin policy and Gazprom's decisions, it is relevant to look at larger scale features of Russian interests in the Arctic and how they relate to structural context, such as global energy markets, geopolitical and security interests. How might these larger contexts influence future Russian policies? How strongly is the Russian government likely to push Gazprom? The review of literature on Russian policies in the Arctic in Part 1 of this paper showed that there is a strong heritage of Russian government interest in the Arctic in four intersecting areas: economic (national and regional), energy, geopolitical and security interests. Russian activity toward Arctic hydrocarbon exploitation will most likely relate to how these interests will change in the future and their relative importance. The following section provides some initial reflections on Russian interests in relation to corresponding features of the wider global and regional context: the

<sup>&</sup>lt;sup>5</sup> See: http://www.theguardian.com/world/2012/aug/29/shtokman-russia-arctic-gas-shale

world economy, global energy markets, the global geopolitical situation and issues of regional security interests relating more specifically to the Arctic.

#### 4.1 Russian interests in the Arctic in a global and regional context

The national economic interests of Russia and its role as an energy supplier are highly dependent on global demand for Russian hydrocarbon resources. In the short and medium term, these are linked to *economic development*. Despite current economic recessions, the medium-term scenario is one of increasing economic growth that is dependent on fossil fuels, especially in rapidly growing economies such as China and India and other Asian countries. For Europe, economic growth is likely to be slower but a growth in gas demand in nevertheless expected (International Energy Agency 2011). The extent to which this economic growth and increasing demand for gas will translate into energy markets for Russia will in the short term depend on alternative supplies of fossil fuels, including transport options. In the medium to long term, other factors also come into play. They include the availability and price of non-fossil energy sources. How global climate governance will develop is also relevant, including both the direct impacts on the price of using fossil fuels (i.e. charges on emissions of greenhouse gases) and indirect impacts on the availability and price of alternative energy sources. Further analysis could specifically focus on the links between climate governance, the cost of different energy supplies and the demand for Arctic oil and gas from Russia.

To be a supplier of energy that is in demand is from a Russian point of view also a source of *geopolitical power*. It would therefore be useful to analyze the future behaviour of the Russian government in the Arctic in terms of its position in the changing global geopolitical landscape. What role does Russia intend to play in relation to countries such as China, South Korea, Japan, and India? What role does it want to play in relation to other major regions of fossil fuel supply, such as the Middle East? These questions are also relevant for analyzing current Arctic politics where new national actors want to have a voice in how the region develops, exemplified by increasing interest in the Arctic from China, India and South Korea (Jakobson 2010; Chaturvedi 2012).

Looking towards *regional security* issues, including potential border conflicts, it appears that Russia intends to follow international agreements under the UN Convention on the Law of the Sea (UNCLOS), which is supported by the recent delimitation agreement with Norway that regulates access to previously disputed areas in the Barents Sea. One way to further analyze potential futures is to focus on Russia's roles and intentions in the Barents region cooperation and in the Arctic Council. Even if Russia's profile has been low at times in these fora, there is no indication that it would abandon them. Should the security situation deteriorate in the Arctic, this would most likely not benefit Russia's role as supplier of fossil fuels as it would lose its advantage in relation to more conflict-prone areas of the world.

Protection of the environment is an issue that does not feature much in the Russian discourse on the Arctic, but a great deal in international discussions. Environmental guidelines for offshore oil and gas activities may pose a challenge for Russia and make it more dependent on technologies and further funding from foreign investors, which may in turn lead to further demands for environmental protection. In this context it is relevant to analyze the role of the Arctic Council and other international regimes, as well as the role of environmental organizations and business initiatives that aim to strengthen environmental protection. Two key questions need to be addressed: One is how environmental demands will affect the economics of offshore development: will it still be profitable enough? The other is the extent to which the international community can ensure that Russian offshore development adheres to strict standards, which requires analysis both of the formal nexus between international and national jurisdictions and of the practicalities of policing the implementation of agreed environmental practices.

In summary, in spite of hype about Russian offshore hydrocarbon resources in the Arctic, uncertainties remain over whether they will actually be exploited. The analyses presented in this paper reveal near-term uncertainties related to the profitability of developing Arctic hydrocarbon resources, and to a reluctance on the part of the Russian Government to invite foreign investment when it views resources as central to its geopolitical position and national security. Long-term uncertainties relate to competition from other energy sources – fossil as well as alternative energy – in Russia's major markets.

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