



Russian and Caspian energy developments and their implications for Norway and Norwegian actors

**A five year research program financed by
PETROSAM
Research Council of Norway**

Presentation of main issues

Objective

Russian and Caspian energy is a source of opportunity and risk for policy makers and businesspeople across the globe, not least in Norway, both a neighbour to Russia and a key player in the same industry – oil and gas. This research programme aims to produce knowledge of relevance to Norwegian decision-makers and society at large as well as to contribute to competence building in the Norwegian research community.

Main focus and relevance

The research programme will expand the understanding of the long-term outlook for three issue clusters of strategic relevance for Norway:

1. Russia and the Caspian region as arenas for foreign energy companies
2. Driving forces and conditions for Russian and Caspian energy exports
3. Energy developments in the High North

These issues will be revisited repeatedly throughout the programme. But to understand and forecast developments in these issues we need to address more fundamental tendencies. In our previous research, we have identified three recurrent energy themes in Russian and Caspian politics:

1. Control of the oil and gas industries and revenue streams
2. Concern for the energy balance
3. The link between energy and foreign policy

These concerns, the way they will be addressed by Russia and the Caspian states, and the factors and driving forces that will influence their relative focus and interpretation are at the centre of this programme.

The research will mainly be aimed at understanding long-term developments, but in order to do so it will also be important to improve our reading of short-term signs. We will specify causal relationships where possible, and identify overall emerging patterns and paradoxes where complexity is high. We suggest a research programme that deals with understanding both the relevant reforms and the actors and driving forces behind them. Several different methodologies will be applied, in addition to an overall integrative framework. For the direct users of this research, the natural interest is to have informed opinions about what may happen next. Sound research must, however, rest on analysis of what has happened earlier. This research programme has been designed to cater to both needs.

In the following, we present the main themes and topic areas that will be covered. The work will be divided into several inter-related work packages, which in turn will consist of sub-studies and other activities.

Russian upstream management

Point of departure:

The Russian oil industry witnessed a steep production growth in the period 1999 to 2005, bringing output back to the level from before the collapse of the USSR. Accompanied by a soaring world market price, the growth has secured a steep revenue increase for the Russian oil companies as well as the Russian state. Since 2005 the output growth has levelled out, however, and there is growing concern in Russia for the prospects in the years ahead due to under-investment in renewal and new production capacity as well as little exploration activity. Extensive geological mapping from the Soviet period gives all reason to expect that new fields eventually will be brought on stream, the problem is the considerable time it will take to do so.¹

The gas industry faces a similar problem of: an impressive resource base, but little investment in field development. The situation in the gas industry is regarded as more acute, since a shortfall in production would spill directly over into problems in domestic energy consumption, where gas plays a dominant role, and/or problems fulfilling long term export commitments. A drop in oil production would not have similar dramatic effects, it would mainly entail a fall in income (if the fall is not compensated by higher price). But this is serious enough given the economy's dependence on oil revenues.

The dominant policy trend over the last years has been to transfer assets to state controlled companies and to increase state influence over the remaining private companies. This is a line of policy that only to a limited extent has been developed as a solution of problems in the energy complex. Rather it must be seen in light of an overarching theme in Russian politics – strengthening the state – as well as power struggle between factions in the state apparatus. The focus of the policy has not been to establish a sustainable and balanced resource management system, but to develop a new system for revenue collection and distribution of rent among state structures.

Hypothesis:

The fundamental hypothesis is that the challenges outlined above will not be adequately addressed by the peculiar state-oligarchic model that has emerged in Russia. There is great uncertainty about *when* problems will be clearly spelled out, but, when they do eventually become clearer, new instability in policy can be expected, both with regard to resource management and organisation of the oil and gas industries. This does not necessarily mean that we will see a 'rational' response. New rounds of rivalry between state dominated companies is also a possibility. An important determinant is how entrenched the institutional interests supporting the present structure are. Although definitely not on the agenda today, reform of Gazprom may come up in such a context.

Thus we want to understand how Russian upstream policies and conditions evolve on two levels:

- attempts at establishing new policies as a response to problems with the resource base and the economics of development, and
- interest configurations and institutional rivalries within the energy complex.

¹ Kryukov, Valery and Arild Moe, 'Russia's Oil Industry: Risk Aversion in a Risk-Prone Environment'. *Eurasian Geography and Economics*, Vol 48, No 3, 2007, pp. 341-357.

Comprehensive reports on developments in the Russian energy complex are now being published quite regularly by international organisations, especially the OECD and IEA.² While these publications are very valuable, especially with regard to data, and give important insights, they often fall short of analysing the inner workings of the complex. To this end we need to use Russian publications and official documents as well as interviews with actors and observers in the energy field. Changes upstream must also be seen in relation to developments in the export markets, to this end insights will be provided by Statistics Norway.,

The main theoretical inspiration for this research is derived from institutional economics and institutionalism.³ But such insights must be coupled with an understanding of the workings of the Russian political and economic system.⁴ The longer term aim is to establish a coherent picture of how institutions in the upstream sector – both formal structures, management principles and bureaucratic procedures – evolve and the prerequisites for their functioning.

Actors and structures

Point of departure:

In the eyes of the Kremlin, the political significance of the Russian oil and gas sector necessitates a high level of state intervention and influence. This can be considered a relatively fixed feature of Russia's energy landscape. However, a number of driving forces, such as the 2007–08 and 2011–12 electoral cycles, a looming gas supply crunch, and the subsequent need to pursue challenging new upstream projects particularly in the High North,⁵ ensure that the interface between energy and politics will remain changeable. While structural and geopolitical factors will be taken into account, this work package will primarily map the discourses and perceived interests shaping Russian energy politics in the medium- and long-term and trace the link between public debate/discourse and actual political implementation and action.⁶ In this way, we aim to theorize why and how new and recycled ideas/discourses⁷ become influential in shaping Russian policy-making. That Putin's 1997

² Recent examples are 'Realising the Oil Supply Potential of the CIS'. *OECD Economics Department Working Papers* No. 484, Paris: OECD, 2006; 'Optimising Russian Gas – Reform and Climate Policy', Paris: International Energy Agency, 2006. The IEA reports are more 'careful' than the OECD papers.

³ Notably the works of Douglass North, e.g. *Institutions, Institutional Change and Economic Performance*, Cambridge University Press, 1990. Also very relevant is the work of Ronald Coase on the theory of the firm.

⁴ For example the ongoing book project 'From Predation to Prosperity: How to Move from Socialism to Markets' by Michael S. Bernstam and Alvin Rabushka, Stanford University, and the works of Clifford G. Gaddy and Barry W. Ickes on rent creation and distribution, see e.g. 'Resource Rents and the Russian Economy', *Eurasian Geography and Economics*, December 2005.

⁵ Ellman, Michael, ed.. *Russia's Oil and Natural Gas: Bonanza or Curse?* Anthem Press, London, 2006.

⁶ Given that many of the new fields to be developed in Russia are located in the High North (both onshore and offshore), this work package will entail an ongoing analysis of what could be termed Russia's 'northern policy/policies'. In this way, this research will expand upon the findings forwarded in Blakkisrud, Helge and Geir Hønneland (eds),. *Tackling Space: Federal Politics and the Russian North*, Lanham, MD, University Press of America, 2006.

⁷ Our discourse analysis draws upon the work of Michel Foucault. A discourse in the Foucauldian sense of the word can be understood as a framing mechanism that both relies upon and (re)produces power by delineating what can be said and done, and perhaps most importantly, who can legitimately speak and do and in what circumstances (cf. Rabinow, Paul, Introduction. *The Foucault Reader*, 3–2., London and New York, Penguin Books, 1991). We will complement our attention to discourse with a focus on practice (cf. Bourdieu, Pierre, *Outline of a Theory of Practice*, Cambridge: Cambridge University Press, 1977). An overemphasis on discourse and, especially, speech acts can lead to naïve assumptions about the connection between what is said and what is done. To counter this tendency in discourse analysis, our study will be balanced with an illustration of how these discourses are actually implemented in policy-making. This combination of studying discourse and practice opens the conceptual space needed for us to conceive of self-aware and strategic actors, who can take part in certain discourses, either to serve their purposes or as an effect of power, but are also capable of producing alternative discursive practices and competently and consciously shifting between discourses.

doctoral dissertation outlined many of the core ideas subsequently applied to the energy sector during his presidency vividly illustrates the importance of tracking both dominant and alternative/submerged schools of thought.⁸

We will focus on three key groups of actors:

- 1) Kremlin/central politics;
- 2) the commercial level with a particular focus on Gazprom and Rosneft; and
- 3) political outsiders and the public.

This focus on actors enables us to identify which actors and discourses are dominant in shaping energy policy and where there is tension between these actors/discourses. In turn, this will allow us to speculate on the impact this may have on overall future energy policy.

Hypothesis:

Upcoming electoral cycles and the anticipated gas shortage will precipitate an ongoing re-negotiation of energy policies in the medium-term. Key actors, discourses ('schools of thought') and structures will interact to produce and frame the possibilities for political/commercial/social action on energy issues.

Russian energy policy reform and public consent

Point of departure:

Russia confronts several economic policy challenges in the years to come. Reform is needed, but at the same time reform will often be painful for groups of the population.

In democratic countries economic reforms are therefore influenced by public sentiment, both through elections, and through the influence of the electorate on politicians between elections. Such influences are often researched using Public Choice Theory, pioneered by scholars such as James Buchanan. The theory sees political decisions in light of their effect on politicians' local constituencies, fundraising prospects, future career opportunities and other personal factors.⁹ Even if a politician personally believes a reform is for the common good, she might oppose it if she believes it will be detrimental to her prospects of re-election or a career after politics. Of course, popular pressure is not the only element influencing politicians. Another important factor in shaping concrete solutions to practical problems is what one could call epistemic communities: a set of semi-academic beliefs about the nature of the policy challenge and the effects of concrete policy alternatives. These beliefs are often transmitted to politicians by various experts and academics.¹⁰

Russia presents in this context somewhat of a special case: First, the relationship between the electorate and politicians differs markedly from that in the countries where Public Choice Theory was first developed and applied. However, if the Russian polity might be characterised as semi-authoritarian, that does not imply that the opinions of the populations do not matter at all, as became evident when the Putin administration moved to replace certain privileges with (somewhat lower) monetary compensations in 2005. Street protests pushed the further reform agenda back, thus, it seems, significantly influencing policy. Second, epistemic communities in Russia, particularly in the fields of economics, seem to differ from those in the West.

⁸ See Balzer, Harley, The Putin Thesis and Russian Energy Policy. *Post-Soviet Affairs* Vol 21, No 3, pp. 210-225.

⁹ Buchanan, James M. and Gordon Tullock, *The Calculus of Consent: Logical Foundations of Constitutional Democracy*, Ann Arbor, MI., University of Michigan Press, 1962.

¹⁰ The seminal work in this discursive tradition within economic policy is perhaps Hall, Peter. A. 1989. *The Political power of economic ideas: Keynesianism across nations*. Princeton University Press. Princeton, N.J.

The project does not aim to look into all aspects of policy-making; rather, it concentrates on certain domestic policy reform areas where the influence of popular pressure and expert advice can be believed to of importance, namely

- 1) gas sector reform;
- 2) power sector reform;
- 3) oil revenue management; and
- 4) climate policies.

Building on previous research into some of the specific reform areas, such as power sector reform, and on an inquiry into the epistemological communities of general economics in Russia, the study will seek to understand the specific interactions between popular strategies for influence and political decision-making in these four specific policy areas.

Hypothesis:

The seeming lack of progress in implementing proposed economic reform policies owes substantially to the regime's perceived need to retain legitimacy and even popularity. The concrete policy solutions chosen in this context are shaped by an understanding of the economy which differs from that of most Western politicians, policy advisers and economists.

Russian macroeconomic development

Point of departure:

In this work package, we will investigate the substance of and possible structural weaknesses in Russia's economic development. On the one hand, Russian macroeconomic development will influence the future path of Russian oil and gas sectors, i.a. through domestic demand for energy. This will in turn have implications for a possible Russian gas supply crunch. On the other hand, revenues from oil and gas exports have, and will continue to have, great implications for Russian macroeconomic development. Research on energy export dependence and revenue management will therefore be a core activity.

We aim to further develop the findings from previous research on Russian macroeconomic trends and issues¹¹. The aim is to develop a deeper understanding on how oil dependent the Russian economy is and to what degree Russian economic policy is sustainable, emphasising Russian energy revenue management.

Hypothesis:

The main hypothesis is that Russia's economic growth is robust but with several structural challenges and with too high dependence on oil and gas revenues. Thus there is a real danger of Dutch Disease-related structural problems.

Sub-themes/research questions:

Important research questions will be:

- What international oil price does Russia need to keep growth on a high level and how will the Russian economy respond to a sharp decrease in energy prices?
- What is the break-even oil price for different levels of state budgets?
- How do oil revenues influence inflation, exchange rates and possible crowding out of other industries?

¹¹ E.g. the project carried out under the auspices of the research consortium's previous project sub-project 5 "Russian macroeconomic trends and issues", in phase 1 of the research programme "The Energy Complex and Russian Political and Economic Development", completed in 2005/06.

- Are there countervailing forces driven by economic interests in non-energy sectors that could change the development described as Dutch Disease?
- What are the main drivers behind the economic growth/development?
- What structural reforms are necessary in order to make Russia's economic development robust?
- What are the Government's plausible and feasible responses to an increase or fall in energy revenues?
- How does the unfolding approach to oil revenue management compare to those of the Caspian oil and gas states?

Earlier studies have revealed several structural bottlenecks in the Russian economy that complicate extensive macroeconomic models. Still, we believe that it would be useful to construct an empirical macroeconomic model describing dynamic relationships between macroeconomic variables, such as output, investment and employment. In addition to giving insight into Russian macroeconomic relations, the model will serve as a hypothesis generating instrument raising questions for further studies. The construction and development of the model will be done jointly by Statistics Norway (Statistisk Sentralbyrå) and Econ Pöyry. Statistics Norway in 2005/06 developed a pre-project discussing the purpose and possibilities of building a simple Russian macroeconomic model. The model development will build on this pre-project. Analyses based on model findings will also be done in close cooperation with Statistics Norway.

The model construction will only be part of the work package. Just as important will be production of papers independent of the model, digging deeper into the main research problems. Another important part of the research will be to develop indicators on economic development. In particular, indicators pointing to the level of Dutch Disease and economic diversification will be emphasised.

Macroeconomic model for Russia - outline

A macroeconomic model is an empirical forecasting model which describes dynamic relationships between macroeconomic variables such as output, investment, employment etc, which in turn are used for forecasting. The relationships in macroeconomic models are typically derived from basic economic theory. As macroeconomic models often use orthodox time-series econometric relationships to forecast future effects on the economy, the robustness of these models is typically very dependent on reliable data. In this respect, however, macroeconomic models are subjected to rigorous historical validation, particularly in terms of the values of the model's parameters.

Our chief intention is to design a simple macroeconomic model that captures effects related to oil price changes. As such, our Russian model will be designed as a model for an open economy with two sectors, a domestic services sector and a competitive industrial sector. In this way we capture sector-specific behaviour related to oil price movements, which is in line with general Dutch Disease theory. More specifically, the first-hand effects of a change in income from natural resources are typically connected to the relative price level between domestic and foreign markets. The natural resource aspect is embedded in the model as an exogenous oil price, which is intended to affect both the real and monetary side of the economy. The model is designed so that the Russian economy is assumed to fluctuate around an exogenously given equilibrium with a given natural rate of unemployment.

The relationships in the model will broadly follow the following lines: an oil price increase triggers a change in the real exchange, assuming (correctly) that the ruble floats. Real exchange rate effects spur inflation movements through import prices. The inflation in turn also affects wages and the exchange rate, while price growth will lead to interest rate adjustment. Inflation and interest rate

relationships are assumed to follow a Taylor rule, which links interest rates, exchange rates and wage/price growth.

Increased natural resource income will lead to an increased demand for both domestic and traded commodities, where increased domestic demand follows a general demand effect and demand for traded goods is boosted by a relatively lower import price. While increasing real wages, this also triggers an interest rate response. While higher natural resource income increases demand in both sectors, it only increases supply in the domestic sector. Output from the competitive sector falls as real wages increase, the relative price of import falls, and the exchange rate appreciates. This last effect is the core definition of Dutch Disease.

This model does not explicitly model trade, nor does it model the Russian public sector explicitly. The former restriction means that we are unable to establish the relationship between the petroleum sector and trade, while the latter restriction means we miss out on the potential link between the Russian government budget and oil revenues. Concerning trade this is of minor importance as a separation between domestic and traded goods effectively captures the competitiveness effect of oil prices. The lack of public sector modelling, however, implies that we miss out on an important aspect of Russian petroleum politics, and we may want to reassess this at a later stage.

Data and estimation methodology

The model itself will consist of log-linear equations representing the relationships described above. These will be estimated over a time period determined by data availability.

We expect to be using quarterly data obtained from a number of sources, including the Russian Federal Statistics Service, Central Bank of Russia, Norwegian Central Bureau of Statistics and the International Financial Statistics database from the IMF. In choosing an estimation strategy we need to address: 1. the limited quality of the data (eg the restricted number of observations), 2. the seasonal pattern in the unadjusted raw data, and 3. the non-stationarity of nearly all the variables. Once the seasonal adjustments are made, we take the non-stationarity of all variables into account by estimating the equations in error-correction form (ECM).

Geopolitics and strategic export infrastructure

Point of departure:

Pipelines, in particular gas pipelines, are the physical embodiment of relations between suppliers and consumers. As such they are also the location of conflicts of interest between suppliers and consumers: for a supplier such as Russia, which aims to use energy power as a means to return to the international stage while at the same time maximising profit, it makes sense to project energy power into end markets along pipelines and other infrastructure. For consumer countries, pipelines become an important part of their concerns over security of energy supplies, while they also wield a certain power as markets – especially if they are able to act in concert. The picture is further complicated by the role of transit states, which, in addition to being consumer countries with an interest in energy supply security, have a unique form of transit power of their own. Thus the January 2006 Ukrainian gas crisis may be interpreted either as the exertion of Russian energy power or the end of several years of the exertion of Ukrainian transit power over Russia that made it possible to keep prices down.

Geographically, the work package will have three foci: the export of Caspian gas, the transportation solutions for Arctic Russian gas and pipeline options in the Far East.

Hypotheses:

Control over export infrastructure and downstream assets will be an increasing concern in the petroleum policy of Russian actors both as they struggle with the impending supply crunch and as they work to increase profits. This results in two main areas of conflict: (1) for control over existing pipelines in Central Europe over which transit states have influence and (2) relating to pushing forward new Russian- and Western-sponsored projects to export gas from the Caspian and Russia that change the symmetries of power and dependence in the region. The level of conflict is not going to decrease during five-year time span of this project, not least because control over the export of as much Caspian gas as possible is key to Russia's future standing as a gas exporter and because there may not be enough gas to go around in the end.

Caspian regimes and business climate

Point of departure:

The Caspian states – Azerbaijan, Kazakhstan and Turkmenistan – are characterised by being both petro-states and Soviet successor republics. Understanding the inner workings and business climate of the Caspian states is paramount for external actors operating in the region. In the case of StatoilHydro, its main foreign assets are located in Azerbaijan, and extending the company's engagement to Kazakhstan and Turkmenistan would boost the value of those assets – in particular BTC and SCP. The transit states Georgia and Turkey will be covered to the extent that this is desired by the users.

Hypothesis:

The Caspian states are likely to remain semi-authoritarian regimes defined by varying degrees of instability, corruption, clientelism and informal networking. The nature of the Caspian regimes will affect both (1) what arena the Caspian states come to constitute for energy companies operating in the region and (2) how Caspian states act vis a vis other players in the region. The Caspian will continue to be a demanding arena for external actors, defined by an unpredictable legal framework and considerable state control in the energy sector. Continued semi-authoritarianism and associated potential for instability will also give Russia an important advantage in the region. Russia has demonstrated an ability to provide considerable regime support in return for favourable energy policies – this enhances Russia's position in the region.

The existing literature on post-Soviet studies and petro-states provides important theoretical starting points for this work package.¹² Insights from these two perspectives will be innovatively combined in order to enable a comprehensive analysis of the political and economic trajectories of the Caspian regimes.¹³

There will be two phases in the work package. In the first phase key features of the regimes will be defined and disentangled analytically. In the second phase the implications for outside actors will be surveyed and analysed. The focus in the work package will be primarily on Azerbaijan, Kazakhstan and Turkmenistan – given the scale of their resource wealth and relevance for Russian energy developments – although, when relevant, developments in other neighbouring countries will also be examined.

¹² A comprehensive post-soviet perspective on the Caspian region is provided in P. Jones Luong, *The Transformation of Central Asia: States and Societies from Soviet Rule to Independence*, Ithaca, N.Y, Cornell University Press, 2004, while Karl T. L., *The Paradox of Plenty: Oil Booms and Petro-States*, Berkeley, CA., University of California Press, 1997) synthesises knowledge on petro-state trajectories.

¹³ A first attempt at combining these two perspectives was done in the article by Leila Alieva and Stina Torjesen 'The insignificance of clan' (article presently under review by a major international journal), which was written under the auspices of the research consortium's previous project 'The Caspian Sea Region Towards 2020'.

In-country field work will be a central to the studies in the work packages, with elite interviews holding particular significance. Key informants will be systematically selected and a number of informants will be asked to do multiple interviews over the course of the five year period in order to enhance trust and continuity.

The consortium

The Fridtjof Nansen Institute (FNI) is an independent institution engaged in research on international environmental, energy and resource management politics. The Institute maintains a multi-disciplinary approach, with main emphasis on political science, economics and international law. Research on Russia is carried out by a group of researchers who all speak Russian and are trained in social science. Studies of the Soviet and Russian petroleum sector have been carried out since the mid 1980s, focussing on the driving forces for energy exports, the (re)organization of the industries, as well as developments in the Barents Sea.

The Norwegian Institute of International Affairs (NUPI) was established by the Norwegian Parliament in 1959 to contribute to greater awareness and insight concerning international issues through research and the dissemination of information. The research agenda includes international politics, international economy, and developmental studies. In 1995, on the initiative of the Norwegian Ministry of Foreign Affairs and Ministry of Defence, the Centre for Russian Studies was established as a focal point for Norwegian research on Russian and post-Soviet affairs. The other research entity at NUPI taking part in the consortium, the Energy Programme, was established in 2006. The staff at both the centre and the programme is Russian speaking, and have a multi-disciplinary approach to Russian and post-Soviet studies (including political science, anthropology, human geography and area studies).

Econ Pöyry is a Nordic research institute and consulting company, working primarily at the crossroads between markets, policies and technology. Econ Pöyry is the new name of ECON after the company joined forces with the energy arm of the global company Pöyry in September 2007. Econ Pöyry provides research, analysis and consulting services across a wide spectrum of topics and issues, most notably energy related questions. Econ Pöyry's staff consists of more than 80 professionals with experience from research institutions, central and local government, international companies, as well as national and international organizations. Econ Pöyry's Russia team employs five researchers, all fluent Russian speakers with social science training.