Mutually supportive?
The Russian State and Russian Energy Companies in the Post-Soviet Region, 1992–2012

By
Ingerid Maria Opdahl

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Centre for Russian, European and Eurasian Studies
Department of Political Science and International Studies
School of Government and Society
College of Social Sciences
University of Birmingham

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Abstract

This thesis investigates relations between five Russian energy companies – RAO UES/Inter RAO (electricity), Minatom/Rosatom (nuclear energy), Lukoil (oil), Transneft (oil pipelines) and Gazprom (gas) – and the Russian state from 1992 to 2012, with particular regard to state–company interaction over Russian foreign policy and companies’ activities in the post-Soviet region. The argument is that, due to the institutional legacies of the Soviet system, state–company interaction over foreign policy and energy operations abroad was part of their interaction over the Russian state’s institutional development. The study is based on the conceptual framework of social orders developed by North, Wallis and Weingast (NWW). State–company relations are seen to vary according to their informality and formality, and how closely the companies, and their rent streams, are tied to the state and the ruling coalition, or regime.

The thesis concludes that the institutions that structure companies’ relations with the Russian state at home make them more or less available as foreign policy tools. In particular, domestic state–company relations influence the companies’ role in maintaining post-Soviet energy dependence on Russia. The thesis highlights the energy companies’ importance for state infrastructural power, and for the durability of Russia’s authoritarian regime.
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1. INTRODUCTION

1.1 Aim and scope

Russia’s international position today is built on energy. Energy resources, especially international oil and gas supplies, make up the fundamentals for Russia’s position as a great power in international relations and provide the revenue for military and nuclear power projection. Russia’s return to great power politics during Vladimir Putin’s presidency initially surprised the West, which had in the 1990s become accustomed to a more compliant Russia with little capacity to spare for global affairs. For the post-Soviet states, however, Russia never really went away. It remained a great power in the region, above all in the regional economy. This position supported Russia’s foreign policy and underpinned its return as a great power in international affairs. Energy was the central pillar of Russia’s position in the post-Soviet region. The break-up of the Soviet Union left Russia with few tools to influence the other post-Soviet states, but energy was a crucial exception.

Russia’s current position in the region did not spring from nowhere. The legacy of an integrated Soviet energy complex, dominated by Russia, opened the possibility of using energy as a tool of Russian influence in the post-Soviet space. As this thesis will show, the subsequent development of Russia’s energy complex has been intertwined with the development of the current Russian state. After the disintegration of the Soviet Union, the Russian state’s ability to respond, act and influence in the economy was reduced. Deprived of Soviet hierarchical mechanisms, and without the indirect institutions of an established market economy, the new Russian state established institutions on paper that worked only when underpinned by personal, informal agreements. Such was the basis of the gradual renewal of state capacity in the economy that followed. This drew the Russian state and the
Russian energy companies closer together also in the post-Soviet period. While this is often observed, the evolution of this process is rarely unpicked and analysed. The aim of this thesis is to fill that gap. Here, it is argued that the Russian state and Russian energy companies participated in the development of both Russian foreign policy and Russian energy operations in the post-Soviet region, because this was part of their interaction in the overall institutional development of the Russian state.

1.2 Research questions and analytical aims

This thesis is about the role of five large Russian energy companies in Russian foreign policy in the post-Soviet states, from January 1992 to March 2012. The companies emerged from the Soviet energy complex, an essential cog in the giant superstructure of the Soviet economy. They were legacies of Soviet ministries that gradually transformed themselves into business units. Their continued operations amidst the upheaval of Russia’s market reforms made them central to maintaining domestic political stability. They were, essentially, organisations closely related to the state. But while energy companies emerged out of state structures in the early 1990s, by the 2000s they were distinguishable as companies, even though they differed in their distance from state structures. Close state–company relations in the early 1990s implied personal and informal relations, and a lack of clearly defined boundaries between state and company. But state–company relations were also conflict-ridden. Often there was little or no state control over companies that formally belonged in the hierarchy of state organisations. In the 2000s, even when ties were close, interaction between the state and the companies took place between more clearly defined entities, and was more formal and institutionalised.
In the period under study, the Russian state went through a transformation from a fragile state, with little capability to uphold stable institutions and predictable practices, to an increasingly cohesive organisation with more clearly delineated institutions and interests. The energy companies were integral to this development. By interacting with the energy companies, the state could respond to demands and adapt to a wider range of tasks. So how did relations between the energy companies and the state change? State–company relations, their gradual change and growing institutionalisation, come under scrutiny here. It is argued that changing state–company relations required mutual adaptation on both sides. As a consequence, it will also be possible to understand how the state itself changed from the moribund, all-encompassing, late-Soviet state, incapable of responding forcefully to, let alone shaping, developments in the economy, to a more active and flexible state with differentiated institutional frameworks for different sectors. The companies in the same period changed from Soviet enterprises wielding control only over the processes of production, to vertically integrated companies with command over input, production, marketing and profits. In return for state and regime support, they shared their rents, or economic profits, with the state and wider Russian society, through taxation and other channels.

Mutual adaptation between the Russian state and companies resonated across the post-Soviet region. A considerable part of my analysis is of the energy companies’ operations in the post-Soviet states. The companies formed Russia’s relations with the other post-Soviet states from before the break-up of the Soviet Union. They were present in the post-Soviet
states, conceptualised in Russia from 1992 as the ‘near abroad’,¹ before the foreign policy of the Russian state had been formed. To the Russian state, their operations opened a window for Russian influence over post-Soviet states when few, if any, other tools were available. How did the companies’ relations with the Russian state change as regards, on the one hand, company activity in the post-Soviet states, and, on the other, Russian foreign policy towards the post-Soviet states? This part of the analysis aims to shed light on the changing state–company relations on the level of the post-Soviet region. This will yield insights into the changing capacity of the Russian state to formulate foreign policy and institutionalise implementation. The energy sector gave the state some important foreign policy tools.

In this thesis, state–company relations between five energy companies and the Russian state are investigated, with particular emphasis on the role of Russian energy companies in policy towards post-Soviet states. As a general observation, one may note how, with the notable exception of transit relations, the post-Soviet states were initially slow in advancing demands and attaching conditions to the operations of Russian energy companies on their territories. Energy dependence on Russia affected how post-Soviet states responded to Russian policies, and therefore the effectiveness of energy as a Russian policy tool. I will show how energy dependence (Table 1.2) among the post-Soviet states opened investment and acquisition possibilities for Russian energy companies and widened the range of policy options for Russia. But the aim here is not to explain outcomes in bilateral relations. The foreign policies of the other post-Soviet states are included only where they contribute to the understanding of state–company relations in Russia.

¹ The term ‘near abroad’ was used by Russian analysts already in 1992 (Light, 1996, p.91 fn.23), but it became associated with Andrei Kozyrev in 1993 as Russia tried to indicate a zone of interests in the post-Soviet region.
1.3 Levels of analysis

This analysis is carried out on three levels: the company level, the level of the Russian state and the international level. At the company level, the importance of state support or privileges, or the absence of such, for company development, is assessed. At the level of the Russian state, sector development for the respective energy industry and the importance of the energy companies to the Russian economy in the overall political stability of the state will be analysed. At the international level, government support for company operations in the post-Soviet region, and company support for Russian foreign policy, are discussed.

State–company relations are investigated at all three levels of analysis. They are tied together by a discussion of how changes in state–company relations at one level affected changes at the others. For example, in light of mutual adaptation, changes in state–company relations, e.g. at Russian state level, may have led companies to adapt their strategies in the post-Soviet region. This study views state–company relations at the national and international levels as a two-level game in its own right, where companies pursued their interests, and politicians maximised their hold on power, in interaction at both levels (Putnam, 1988, p.434). Top representatives of the Russian state also sought to maximise opportunities in the post-Soviet region and minimise adverse consequences of international developments.

1.4 Approaches to state–company relations

The relationship between energy companies and the state is conceptualised as access to and participation in institutional and policy development on both sides. By access, I mean the opportunities available to top company managers to approach key Russian state officials
and top politicians, the political elite, and by participation, to influence government policymaking and sector development. From the standpoint of the state and regime, it is participation in company development and an opportunity to influence company strategies, including foreign operations. Access and participation take place in formal and informal organisations, like patronage networks, and in formal and institutionalised channels of influence.

At all levels, the aim is to trace the evolving relations between the state and the companies as a process of mutual adaptation. Accordingly, when assessing state support at company level, this is seen to reflect the general capacity of the Russian state to support more complex economic organisations, here companies, with less direct ties to the government. However, it is also relevant to see the companies’ response, their adaptation to the changing state. On occasion, company managements used state relations to initiate change. More often company managements resisted the state. When discussing sector development at the Russian state level, the aim is to investigate the participation of the companies in forming their institutional environment, the state itself. The development of the Russian state in this way becomes a process that can be traced through the development of access and participation at all levels.

State–company relations after the break-up of the Soviet Union in the early 1990s was one of several arenas in which the elite struggle for power influenced the future shape of the Russian state. The mutual adaptation process between the state and the companies was not a neat process of negotiation between two clearly delineated sides. In the elite struggle, the fragmented state was also a tool. Control of the state was the ultimate weapon against an opposing organisation, whether political or economic. State–company relations included
the use of the state as a tool to advance the economic or political interests of one organisation against the others. Weak state organisations could be employed as fronts for business interests, stronger state organisations could compete with other organisations for influence. State organisations, or new private organisations with close informal ties to state organisations, were also available for hire and protection. As the saying went, ‘the red roof is the tallest and most influential’ (Vylegzhanina, 2000). As I will show here, in the 2000s, control of state organisations was consolidated within the elite. The mutual adaptation process was then more concerned with defining the terms and limits of access and participation in institutional development.

1.5 The development of the state and state–company relations
Against this background, to understand the development of state–company relations is also to study a centrifugal process, whereby companies emerged out of state structures. The process of mutual adaptation was to set the boundaries of the state and companies, and the institutions that guided their interaction. To understand this process, it is important to remember that an energy company emerging out of a Soviet branch ministry in the early 1990s was a very different entity from a vertically integrated corporation in the 2010s, irrespective of ownership and control. As regards the state, the instruments it had available changed. The crisis of the Russian state in the early 1990s meant that its ability to structure the economic and regulatory environment of both state-owned and private companies was different from two decades later. Over the period under study here, the state fashioned tools better suited to its requirements and made them more efficient. This reflects in turn

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2 ‘Roof’ means protection, the ‘red roof’ in this case is the militsiya (police). This was alternatively referred to as a ‘blue roof’ or ‘mentovskaya krysha’ – ‘cop roof’.
3 Vertical integration refers to the degree to which a company is in control, normally through ownership, of its supply chain and distribution.
the capacity of the state to structure the environment by finding and applying instruments, that is, to implement, compel and coerce.

The Russian reality in the early 1990s was almost the opposite of institutional stability, predictability and transparent implementation. Soviet institutions were eroding, and had anyway been created for the planned Soviet economy. In the late Soviet period, the Communist Party was a partly predictable giver and non-transparent ultimate enforcer of rules. Gorbachev’s sidelining of the Communist Party of the Soviet Union (CPSU) during perestroika, and the decreasing legitimacy of the Party after the failed coup of August 1991, led to institutional erosion and state fragmentation. The Soviet economy by 1990 had a ‘systemic vacuum’ at its heart:

> The old planning system has broken down but has not been dismantled; meanwhile, the structures vital to the functioning of a market have yet to be put in place. (IMF et al., 1990, p.1)

The systemic vacuum left the state a nominal force in segments of the economy at the break-up of the Soviet Union at the end of 1991. The reforms introduced by the new Russian government in early 1992 were meant to create private ownership in a market economy. However, as old Soviet institutions were still not dismantled, the result until the new Constitution was put in place in late 1993 was two sets of institutions existing side by side in two overlapping but incomplete state systems. The chaos of reforms in 1992–3 further weakened the capacity of the state to regulate the economy. The rules of the game were contradictory and in flux, with only a weak rule of law. Private interests and informal networks were prominent in political decision making. When faced with impending
financial crisis in 1998, elite disunity and government policies exacerbated Russia’s problems, leading to a debt default (Easter, 2012, p.138-142). In comparison, government policies, once established, quite successfully met the 2008 international financial crisis (Easter, 2012, p.146-150). These are the milestones of the development of the Russian state.

Changes in the state went hand in hand with changes in the economy. When extracting resources from the economy, and when seeking to maintain societal stability, the Russian state needs to interact with Russian companies. Companies rely on the state for their very existence, while the state relies on companies to create economic resources which it can then extract. Accordingly, state regulation of the economy includes overall support for the existence of companies, fundamentally the basic institutions of property rights and contract enforcement and institutions that extract resources, like taxation. In addition, states can and do organise sectors or companies directly by regulating market or supply conditions, through for example monopolies. A state with the basic capacity to support organisations outside its immediate reach would at least temporarily enforce and protect some contracts and property rights, extract resources from companies not just by owning them, but also through the less direct method of taxation, and regulate market access for at least some companies. More permanent and complete protection of property rights, transparent and predictable taxation and less direct extraction, and open access to markets for companies, would be the case in a state with a more advanced capacity to support complex economic organisations outside its immediate reach (North et al., 2009, p.11-12). In this way, the development of state–company relations reflects the capacity of the state to uphold increasingly complex economic organisations (North et al., 2009, p.47). Without protection of property rights, reasonable taxation and open access to markets, companies need to
pursue close relations with the state in order to operate and survive. However, even where property rights are weakly protected and companies and state organisations are very closely related, the state may be more or less responsive to companies’ demands for predictable policies or support in their operations abroad.

State capabilities are not uniform across sectors. One can easily imagine that the state responds differently to demands for changes to the institutional framework from one energy sector to another. Likewise, capabilities are likely to develop unevenly among state organisations. For example, a branch ministry may be capable of delivering clarifications and lower-level decisions, while strategic issues and demands that require coordination between state organisations remain unresolved.

In the energy sphere, state–company relations take place both in the domestic sphere and abroad. A starting point for this thesis is that the Soviet Union left Russia in control of an overwhelming share of its energy complex, including infrastructure for energy transport and distribution. Institutional changes in Russia’s energy sectors therefore had consequences for the post-Soviet region. Still, when the Russian state interacted with Russian companies at the post-Soviet level, much of this interaction was structured by foreign policy and trade institutions, such as export duties or support for Russian businesses abroad. The pattern of access and participation in state–business relations at this level therefore differed from that inside Russia. At home, institutions like taxation, licences and production permits and quotas structured state–company relations. State–company relations abroad also reflected the general development of Russian policy towards the post-Soviet states, for example, by placing more emphasis on companies as tools of Russian policy when broader integration projects, like the Commonwealth of Independent States
(CIS), faltered in the first half of the 1990s. Economic relations were given high priority at the time, in the Strategic Course, a policy document intended to guide relations with CIS states from 1995 (Decree No 940, 1995). In domestic Russian politics, the social obligations, formalised and informal, of the companies towards their employees and especially towards wider society, can be seen as a substitute for welfare provision by the state. In a situation where property rights are weak, accepting obligations in lieu of the state is a way of ensuring continued protection of property. Some of the obligations of Russian companies extended across post-Soviet borders. In this way, elites outside state organisations participated in national development as a joint project with the state. In return, they reduced their vulnerability to predation from the state.

The elite struggle for control over the future of the Russian state took place also in state–company relations, as control of state companies translated into control of the Russian state. In the 1990s, financial and operational control over Gazprom in particular was almost equal to control of the Russian state through the state budget. Added to this was the capacity to raise informal contributions through energy companies. Informal contributions, while of considerable value, were different from formal taxation. In the 1990s, the government found it difficult to extract formal taxes in full, not least from Gazprom. But President Yeltsin could nevertheless rely on Gazprom to forward ad hoc contributions to, or indirectly support, political campaigns, or step up to the plate in national emergencies such as the 1998 financial collapse. The larger the company, and the greater its potential as a source of rents, the more central an object it was likely to become in elite conflicts for control also of the state. With at least a temporary agreement within the elite on a coalition in charge of ruling the state, as in Russia from 2000, elite conflicts revolved instead around
modifications of the institutional framework in a way that maximised rents, either to the state, to the companies, or both.

In consequence, my analysis of access, participation and mutual adaptation is a means to an end, the aim being to explore whether, and how, state organisations used the companies as their tools, at home and abroad. Alternatively, company managements may have resisted on behalf of their companies.

Resistance is related to a broader occurrence: autonomy from the state in companies that were formally state owned. Extensive autonomy reduces opportunities for state access and participation. It was both an effect and cause of the state’s weakness, during the downward spiral of state capacity in the early 1990s. The relatively rapid weakening of the Soviet state during the break-up of the Union left the new Russian state so weak that it lost real, as opposed to nominal, control of state companies and enterprises, including those later integrated into the companies under study here. Extensive autonomy was a consequence of the systemic vacuum in the late Soviet period. As the system eroded from within, existing channels of access and participation were disrupted without new ones emerging, and companies became insulated from the state. The close and informal personal relations that we will see between some company heads and top representatives of the state were in periods the only relations between the state and the company. Activities in post-Soviet states are particularly interesting in this regard, as one may expect them to be particularly prone to operate beyond the reach of Russian state organisations, including foreign policymaking ones.

Increasing autonomy can be a logical response to state weakness by a company’s management. When the state is weak and fragmented, like Russia in the 1990s, (partial)
withdrawal is a logical response from a company management that would otherwise easily be removed in a conflict. In such periods, companies may have refrained from attempting to gain access and involvement. They may even have developed into a state within the state. This happens when a company sets its own rules and attempts to create institutions outside the channels of access to and participation with the state, to bypass the state’s institutional framework. If this succeeds, the company effectively sets the rules of the game, and can operate beyond the reach of an impotent state apparatus. The development of extensive autonomy from the state is best seen as a downward spiral of fragmentation and incapacitation on the part of the state, in contrast to an upward spiral of institutional development.

1.6 The Soviet institutional legacy

The Soviet economy is usefully seen as a single structure, giant but centralised. Soviet enterprises were not firms in the Western sense (Adachi, 2010, p.32-36), but production units in the corporation USSR Inc. (Hanson, 2003, p.9-13). The transformation of institutions, here defined as the rules of the game devised by humans but constraining human interaction (North, 1990, p.4), was a slow and uneven process. Soviet institutions were in many cases carried over into each post-Soviet state. These institutional remnants of the past continued to function in new circumstances and made Soviet-type rules and procedures available also to the new governments and new companies. In this study, they are called institutional legacies. Legacies are here seen to have passed from the Soviet Union to post-Soviet Russia as an inheritance, sometimes in slightly modified form, to become the basis for further institutional and organisational development. My view of legacies as institutional continuity is accordingly less inclusive, with a more modest legacy agenda, than that of scholars who define legacies as durable relationships, of different

In this study, the legacies of USSR Inc. matter in three ways. The first concerns institutional autonomy and property relations, especially the emergence of companies from the Soviet, and later the Russian state. Gradually, from the late Soviet years (1987–90) to the mid-1990s, organisations that had been part of the giant Soviet superstructure became tangibly distinct units within a Russian economy undergoing reform. Other parts of the superstructure were torn away in the break-up and became the property of other post-Soviet states. The companies studied here began their post-Soviet life at the level of USSR branch ministries – the Ministry of the Gas Industry, the Ministry for Medium Machine-Building. As Russian companies they remained in control of a considerable part of their Soviet-period industrial sector. They were formally closely associated with state organisations. In practice, too, close formal and informal relations between state organisations and the companies existed on and off for much of the period under study. Over the two decades following the break-up of the Soviet Union, however, the overall direction was away from USSR Inc. in a centrifugal process, and towards institutionalisation of formally more distant ties between the state and the companies.

In the early 1990s, the economic organisations emerging out of USSR Inc. were only beginning to exist as distinct from the state. In this they differed from companies created from scratch in the new market economy. Some, like Lukoil and to some extent Gazprom, were more easily discernible among the new old companies, but exactly where the dividing line was could not be easily determined in the early period (1991–3). Others, like Minatom and the Russian Unified Energy Systems (RAO UES), were closer to core state
organisations, but not clearly delineated. All companies, and state organisations in charge of the institutional framework, had a mix of economic interests, some connected to the state, and some concerned with private gain. This further complicated delineation between state and company.

So USSR, Inc. left a legacy that affected the degree to which organisations, here seen as the players in the game (North, 1990, p.4-5), could be distinguished from one another. There was a visible lack of distinction between economic organisations, like enterprises and production associations, and state organisations like ministries. In the planned economy, enterprises were subordinate to ministries. The separation of economic organisations from one another into state-owned and privately owned structures, for example, was a lengthy process. The state level was not clearly differentiated and separated from the company level for much of the 1990s. The separation process proceeded unevenly across industries. The blurring of the state and company side persisted for some time in all companies, with Lukoil being separated first (1993) and Rosatom last (2007). In much of the 1990s and 2000s, the dividing line between core state organisations, state companies, and partially state-owned companies remained blurred and their responsibilities diffuse.

The second legacy of USSR, Inc. was the institutional framework itself. Gazprom, RAO UES, Transneft and Rosatom survived relatively intact and unreformed to the mid-1990s. They survived as infrastructural monopolies in their respective sectors. This meant that while the Russian state in 1992 embarked on a transformation that would eventually turn the economy into a partial market economy, the institutional structure inside and around these companies changed at a more leisurely pace. The organisations took on traits that
turned them more (Gazprom) or less (Transneft) into companies, but their relations with the state were based on their status as monopolies and on informal rent-sharing. Again, we are reminded of the changes in the energy companies as organisations over the period under study, and the differences in the way the state structured their environment over time. The energy sector’s institutional framework remained in many respects a legacy of the late Soviet period, with gradually introduced modifications. The companies were therefore capable of influencing state policies to an extent not seen in many other sectors, possibly apart from the defence industry.

A third legacy was the institutions that structured ties with the other post-Soviet states. USSR Inc. extended throughout the entire Union, and linked enterprises by sector across internal boundaries (Bradshaw, 2008, p.194). The energy sector, with pipelines and power grids criss-crossing internal borders, was a physical, infrastructural expression of the Soviet Union. Due to the way in which transport grids were concentrated in Russia, energy companies were left with more of the Soviet production and transportation chains under their own control than were other companies. Their insecure and partial consolidation went beyond what could be achieved in other economic sectors. They consolidated their operations in Russia, but they were large and forceful entities also in the post-Soviet context. As much of the old physical structure was intact, maintaining or renewing ties with the other post-Soviet states was feasible, and the institutions that structured bilateral ties persisted or changed little at first. The monopoly legacy, expressed physically through extensive infrastructure, made energy companies, by virtue of their institutions, potential tools in policy towards the ‘near abroad’, the post-Soviet states. When post-Soviet trade collapsed, energy was less affected than other sectors (Table 1.1.). The companies under investigation here became all the more important to Russia’s bilateral relations with post-
Soviet states, because most of the latter remained dependent on cheap energy from Russia, or on passage through Russia to the now open global markets.

1.7 A gap in our understanding of Russian foreign policy

Energy often attracts considerable attention in post-2000 studies of Russian foreign policy, especially where the post-Soviet states are concerned. Indeed, energy is considered an important source of a ‘re-assertive’ foreign policy (Allison, 2004) in the region, particularly in broadly realist analyses of Russian foreign policy (Donaldson and Nogee, 2009, p.194-195), and of Russia as a great power (Jonson, 2004, p.99-103; Nygren, 2007, p.113-119; Oldberg, 2007, p.26-27; Mankoff, 2009, p.241-292). Also scholars of Russian energy policy highlight the political use of energy, particularly gas, in foreign policy (Stern, 2005, p.102-104; Pirani, 2009a, p.5-8).

Some see it as a cyclical phenomenon, like oil prices. Economists Clifford Gaddy and Barry Ickes remark, for example, on the link between resource abundance in the Soviet Union in the 1970s or Russia in the 2000s and expansionism in foreign policy (Gaddy and Ickes, 2010a, p.283-284). But in the 21st century, energy has been seen specifically as the basis of Russia’s rise as an ‘energy power’ (Finon and Locatelli, 2008), a ‘key pillar of [Russia’s] international influence’ (Sherr, 2013, p.66), which is not enough, according to some scholars, to make Russia an ‘energy superpower’ (Goldthau, 2008; Rutland, 2008).

But if Russia is not an energy superpower, few states would match the description. The sources of Russia’s energy power are often quoted as the rising oil prices from 1999–2000 and Russia’s resulting energy wealth, combined with the return of state control in the oil and gas industries (Hill, 2004; Finon and Locatelli, 2008). On closer scrutiny, this is too
one-dimensional a view (Goldthau, 2008; Rutland, 2008). Converting oil wealth into influence was never so simple (Rutland, 2008), nor always the only priority.

One important base of Russia’s foreign energy policy, the relationship between the Russian state and the companies in that sector, is however rarely investigated in studies of Russian foreign policy. From a realist perspective, it is a natural assumption that Russian energy companies, when operating abroad, are very close to the Russian government (Leijonhielm and Larsson, 2004; Liuhto, 2010; Oldberg, 2011). To realists, energy is often a soft power weapon. Whether a ‘commodity tool’ (Leijonhielm and Larsson, 2004, p.140) or the ‘most potent tool’ (Oldberg, 2011, p.49), when seen from the theoretical position of offensive realism, Russian energy companies are reduced to extended arms of the Russian government. While differentiating between Russian companies and general foreign policy, analyses rarely make the differentiation explicit (Sherr, 2013) or explore it (Perovic, 2006). This failure reflects the general statist disposition within realism, where foreign policy decisions are made on the basis of the national interest, without much regard to domestic cost. It ties in neatly with assumptions in the economics literature about the division between politics and the economy. Russian foreign energy policy, in this approach, becomes either dominated by geopolitics, or profit maximising, but cannot be both.

Still, the foreign operations of Russian energy companies are often reduced to a politics vs. economics frame. If they are not profit-oriented, they are tools of foreign policy, and vice versa. Scholars with a more liberalist view of international relations, like students of international political economy, tend to emphasise the business rationale in Russian energy companies’ operations abroad and therefore note a conflict with the Russian government’s foreign policy (Goldthau, 2008). Foreign policy itself is, however, just as in realism, made
autonomously by the state. The political resonance, and use, of Russian energy companies’ activities is seen then as external, almost unrelated to the companies themselves. But it remains difficult to ignore the foreign policy relevance of Russian energy companies within the post-Soviet region. Energy scholars tend to solve this dilemma by noting the political setting of energy trade in the post-Soviet region, while focusing on supply and demand (Pirani, 2009b).

Attempts to move beyond the common (geo)politics vs. (business) profits understanding of Russia’s energy interactions with its counterparts do not interrogate the domestic bases of Russian policy (Kuzemko et al., 2012), or, when they do, they refrain from linking the national level with the global (Aalto, 2012). Therefore, even as analyses may uncover a gap between company strategy and foreign policy, the links to domestic politics fall outside investigation (Poussenkova, 2012), or companies’ actions are seen as subversion of the soft power weapon ‘from below’ (Stulberg, 2007, p.167).

So the links between state–company relations at home, and the role these companies play in foreign policymaking, remain underexplored. One reason for this investigatory deficit may be the persistence of the politics vs. economics frame. This makes it easy to see the trumping of economic goals (profit) by political goals (influence) as an indication of the balance of power tipping somehow from business to state. And there investigation all too often ends.

Some exceptions exist. Peter Rutland offered an early analysis, arguing that energy companies seemed to play a ‘dominant role in formulating and actually implementing’ Russian foreign policy in the region (Rutland, 1999, p.185). ‘Informal bargaining’, he observed, tended to dominate here, as in domestic policymaking, to the extent that it was
difficult to ‘say where domestic politics end and “foreign policy” begins’ (p.184). His analysis was primarily based on oil companies, but also referred to Gazprom. Tor Bukkvoll considered the oil and gas lobby as part of Putin’s winning coalition at home, and a central supporter of Putin’s strategic partnership with the West after 9/11 (Bukkvoll, 2003). Margarita Balmaceda (2012) demonstrates the need to move beyond both political and economic explanations of Russian energy policy, arguing that there is a complex interrelationship between the two (p.153). She proposes that a company like Gazprom accumulates ‘convertible points’ with the Russian state in both the foreign and domestic realm. These ‘points’ can later be translated (‘converted’) into advantages for the company (Balmaceda, 2012, p.143). The relationship is more formalised in the oil sector than in gas (Balmaceda, 2013, p.61-89). Based on analyses of Russia’s use of subsidies in gas trade with Europe, Stacy Closson offers new insights into geopolitical influence, monopoly maintenance and personal gain as potential, interrelated explanations of Russian gas trade policy (Closson, 2014). These analyses bring us within range of an understanding of the complex relations between the state and energy companies across the domestic and foreign policy spheres. But the study of Russian energy companies abroad has still not been integrated with the well-established discussion on the characteristics of state–business relations in Russia and their relation to the development of Russian politics, economy, and the Russian state itself. The aim of this thesis is to help filling this gap, to integrate our understanding of the energy sphere in Russia’s political development with policy in the post-Soviet region.

1.8 Energy and Russia’s political development in the literature

The importance of energy to the Russian economy is well established (e.g. Gaddy and Ickes, 2010a; Sutela, 2012, p.103-104; Malle, 2013). In analyses of Russia’s political
development, however, it has been used in two types of explanations. First, resource abundance is included in explanations of outcomes in terms of political system, understood in comparative politics terms. This is an extension of the literature on the ‘resource curse’ (Karl, 1997; Ross, 1999; 2001; Sachs and Warner, 2001; Jensen and Wantchekon, 2004; Ross, 2012), by which resource abundance, and oil wealth in particular, in and of itself constitutes a problem for development and therefore for democratisation. State–business relations in the energy sphere are, due to energy’s central position in the economy, seen to influence political regime type. State–business relations in the energy sphere have accordingly been seen to contribute towards derailing democracy (Fish, 2005) or creating a ‘crony capitalism’⁴ that varies, with changes in oil price, like a pendulum swinging in a vicious circle (Gel’man, 2012).

Other authors have contended that the particularities of Russia’s political development are due less to resource revenue as such. As regards overall political development, Susanne Wengle draws attention to how market making in the case of Russian electricity reform was also state capacity building (Wengle, 2012; 2014). Structural reform was a process that strengthened the central state at the expense of sector insiders and regional governors (Wengle, 2012, p.454). In contrast, authors who study Russia’s political development relating to hydrocarbon revenue streams see Russia’s specific system for managing resource revenues and channelling them into the rest of the economy as an obstacle for development. Pauline Jones Luong and Erika Weinthal (2010) take a political institutions approach to how considerations of power maximisation among leaders result in different types of petroleum ownership, and how these then shape institutions, specifically fiscal regimes. They conclude that indirect resource management speeds the development of

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⁴ ‘Crony capitalism’ as a concept is criticised by Mazumdar (2008).
institutions and organisational capacity in a state. Direct management, through state ownership, lets the state access rents directly, but its capacity does not develop as much and the state by necessity acquires a greater role in managing the economy (Luong and Weinthal, 2010, p.121-180). Gaddy and Ickes have a similar point of departure, but come from a new institutional economics background and see the rent management system as the main institutional framework that organises state–business ties in the energy sphere (Gaddy and Ickes, 2010a, p.292). They draw attention to informal rent sharing, and argue that it gives political leaders more discretion to redistribute rents according to their preferences. In turn, this requires the deliberate weakening of property rights (Gaddy and Ickes, 2005, p.571). Resource streams, accordingly, bind the state and the companies together. They, too, argue that informality hinders development in both companies and the state.

1.9 State–company relations and institutional development in Russia

Here, the emphasis is not on political system outcomes. This thesis will build on some of the insights from the literature just referred to to understand how state–company relations changed over time as the state and the companies participated in institutional development. This makes it a study of how power arrangements result in institutional outcomes. But in contrast to Luong and Weinthal (2010), this is a study of processes of gradual change in state–company relations rather than specific institutions as outcomes. Here, as power arrangements evolve, institutions are modified. This is not a study of one institution as an organising principle, unlike that of Gaddy and Ickes (2005; 2010a). The perspective is wider institutional development in a political economy, and how this development spilled over into, and even involved, foreign relations. I will show how institutional change and continuity at times enhanced, and at times weakened, state capacity.
This study builds on the conceptual framework of social orders, developed by Douglass North, John Wallis, and Barry Weingast (NWW) (2009). Although NWW’s framework has clearly appealed to scholars of Russia (e.g. Orekhovskii, 2012; Zweynert, 2012; Paneyakh, 2013; Zudin, 2013b; 2013a; Yakovlev, 2014), to my knowledge only one comprehensive analysis to date applies the framework rigorously to Russia (Connolly, 2013). Further insights can be gained by building on these experiences and applying the NWW framework to state–company relations in post-Soviet Russia. Other studies have applied NWW to political development in other states (North et al., 2013), but not included the international level in their analyses. Another contribution of this thesis lies in its efforts to develop a comparative political economy approach, based on NWW, extendable moreover to foreign relations. The conceptual framework is detailed in the theory chapter.

1.10 Aims, objectives, and research design

This study traces the development of institutions in a central sector of Russia’s political economy, the energy sector. Considering the Soviet institutional legacies and the way in which they encompassed the post-Soviet region, this institutional development also involved foreign policy in the post-Soviet region.

Accordingly, the aims of this thesis are to analyse the changing relations of the Russian state and Russian energy companies in the post-Soviet period, with a particular emphasis on the role of these relations in Russia’s institutional development, and to relate the analysis to Russia’s foreign policy and the companies’ operations in the post-Soviet region.

In order to achieve these aims, I will analyse the relations between the state and five energy companies regarding

- Companies’ access to top politicians and the political elite;
• Companies’ influence on government policymaking and sector development, including on policies relevant for their foreign operations;

• State and regime participation in company development and opportunities to influence company strategies, including their foreign operations development;

• Their formality and informality, regularity and irregularity/resistance, and indications of power relations among state and company actors, especially in operations and policy development in the post-Soviet region;

• Formal and informal extraction of rents from economic activity in companies, and formal and informal sharing of rents with representatives of the state and the regime.

I will relate the findings on state–company relations to overall institutional development in the Russian state, discussing in particular the extent to which

• The state–company relationship changed over time

• The state had, in different time periods,
  
  o the capacity to enforce and protect property rights impersonally and equally;
  
  o the capacity to extract resources through formal taxation;

• The state used the companies as tools of domestic and/or foreign policy;

• The state, and through it, the companies, were used by a regime for informal rent extraction;

• The companies pursued informal relations, including informal rent sharing, taking on social obligations and political support, with a regime to protect their property rights;
• Formal and/or informal institutions of state–company relations in domestic politics and policymaking influenced or extended to bilateral relations and foreign policy in the post-Soviet region;

• There were similarities and differences between the cases, especially similarities/differences in
  o Formal and informal institutions that structured the relationships,
  o How close or distant the companies were to the state, and/or to the regime,
  o The use or not of the company as a tool of the state in domestic and/or foreign policy.

To pursue these objectives, I pose three main research questions. First, how did relations between energy companies and the Russian state change in the period under study? Second and third, how did these relations change more specifically as regards company activity in the post-Soviet states on the one hand, and Russian foreign policy towards the post-Soviet states, on the other?

1.10.1 The cases in this study

The five companies studied here, RAO UES/Inter RAO, Minatom/Rosatom, Lukoil, Transneft and Gazprom, have different relations with the state, and are natural units of investigation. Where Gazprom is visible and active in its relations with post-Soviet states, often with political overtones, Lukoil’s post-Soviet operations have fewer political overtones. Their respective ties with the state at home differ substantially. By including non-gas and oil companies, it is possible to better understand, and identify, the institutional characteristics of state–company relations and overall development. It is also possible, with several companies, to investigate a broader range of state interactions with companies’
foreign operations. This leads in turn to a comprehensive understanding of the potential flexibility of the state in institutional development at home and development of policy towards the post-Soviet states.

The analysis concentrates on interaction between company managements and state organisations. Access and participation at this level are the most important parts of state–company interaction. Top level interaction facilitates wider interaction between state and company. Care is taken to maintain a diachronic, not a synchronic, approach, emphasising change over time, rather than a detailed study of variety at any given time.

The highlighted period is from January 1992 to March 2012. The energy companies of today evolved from the late Soviet period, and this background is included. The beginning of reforms, under a new government, in the new post-Soviet Russian state, is an appropriate starting point for the analysis. March 2012 concluded an election cycle, with Vladimir Putin again becoming Russian president. This is a fitting endpoint to the period under analysis. A few key developments after March 2012 are included.

In the case chapters, the two decades under study are subdivided into shorter periods, and they organise the analysis. For each period, state–company relations at home are discussed first, followed by a discussion of state–company relations as regards foreign operations and foreign policy. The time periods roughly correspond across the case chapters, determined by the milestones in Russia’s post-Soviet history: the challenges of survival in the early 1990s; the 1998 financial crisis; the new political coalition around Vladimir Putin from 2000; the Yukos affair in 2003; the end of Putin’s second presidential period in 2007–8. The discussion of operations and policy towards the post-Soviet region is organised by
country, sometimes by groups of states, since host country governments impose different conditions on foreign energy companies.

General findings across cases and time are discussed in the concluding chapter. In particular, the conclusion discusses findings on the development of the state’s capacity to structure the economy and to pursue and implement foreign energy policy.

1.10.2 Case selection

The cases in this study were selected because they are comparable, while varying significantly in their relations with the state (Ragin et al., 1996, p.752). They are energy companies operating in the post-Soviet region; their relations with the state were based originally on the legacy of Soviet institutions, and they contribute resource rents to the Russian economy. Among them, one (Lukoil) stands out as different from the rest, with its more distant and formal relations with the state, its private ownership, and less involvement as a tool in Russian foreign policy in the post-Soviet region (Ragin et al., 1996, p.756). The other cases also differ in their relations with the Russian state at home and abroad, but much less than in Lukoil’s case, and are therefore approached as similar cases. They illuminate the range of relations with the state that serve to make a company more available as a foreign policy tool.

Gazprom is the most typical of the state’s tools at home and abroad, and is invariably included in studies of Russia’s relations with post-Soviet states. By comparing it with the largely similar cases of RAO UES (electricity), Minatom/Rosatom (nuclear energy) and Transneft (oil pipeline transport), and the different case of Lukoil (oil production), it is possible to investigate the central institutions in a Russian energy company’s relations with the state. By including similar cases that are dissimilar only in respect of fuel type, it is
possible to show that while Russian oil and gas companies were particularly important to the Russian state due to the resource rents they represented, the general mechanisms of state–company relations, and the institutions that made companies available as tools of the state, existed across a wider variety of energy sectors. In that respect, this study differs from most of the other studies that have cast light on Russian energy companies’ relations with the state (recently e.g. Luong and Weinthal, 2010; Gustafson, 2012; Victor and Sayfer, 2012; Frye, 2014). With a single or two-case study, or an industry-specific one, it would have been more difficult to go beyond fuel-specific state–business relations and contribute to our understanding of Russia’s general institutional development.

Two important energy sectors are not included here. The only Russian hydropower company, Rusgidro, was established as a 100 percent subsidiary of RAO UES in 2004 and developed operations outside Russia in 2011–12. It therefore falls outside the scope of this study. And second, the coal industry in Russia is partially integrated with the steel industry. In the experience of this author, the potential of this sector to be used as an instrument of foreign policy is arguably smaller than that of the sectors investigated here (Opdahl, 2004). A renewed assessment for this thesis has not significantly altered this conclusion. Coal mining and the steel industry in Russia are far more labour intensive and less profitable than oil production. Considerations of domestic political stability and foreign production or market access are significantly different from those of any of the cases here.

**1.10.3 Formality and informality**

State–company relations have a formal as well as an informal side. They are structured by the informal rules of the game, but also by the formal institutional framework. So access
and participation occur in diverse settings. The formal, perhaps regular, settings can be traced in the research process and included in the analysis. Others are singular or even spontaneous events occurring on the sidelines of formal events, or merely informal, and largely off the public record. This thesis is the work of an outsider, tracing past events. The sources I have used refer typically to formal relations, and the quality and type of sources vary. Due to the paucity of sources and their variable quality informal state–company relations cannot be grasped and analysed to the same extent as formal relations. Nevertheless, changes to formal institutions will often be preceded by changes in the informal constraints, and changes to formal institutions will be preceded by informal discussions and consultations. Formality, informality, and the methodological challenges posed by informality are discussed further in the next chapter, which introduces the central concepts of this thesis. The theory chapter is followed by the case chapters and the conclusion. The state of the sources for each case is discussed in Appendix 2. Tables and graphs are found in Appendix 1.
2. THEORY

The Introduction outlined the three main research questions as (1) How did relations between the energy companies and the Russian state change in the period under study? (2) How did these relations change more specifically as regards company activity in the post-Soviet states (3) and as regards Russian foreign policy towards the post-Soviet states? Some introductory reflections on key issues were also offered. This chapter provides the theoretical foundations to that approach.

2.1 Institutions, organisations and their place in political change

Institutions can be defined as the ‘humanly devised constraints that shape human interaction’ (North, 1990, p.3). This means that state–company relations are here understood to be constrained, or structured, by institutions, but also facilitated by them. When representatives of the state and companies interact, they do so not altogether randomly, but according to formal and informal rules of their ‘game’, meaning their interaction. Moreover, this thesis holds that their range of options in interaction is also constrained by the institutional framework (Hall and Taylor, 1996, p.940). Actors are likely to follow more or less established conventions, also when deciding on their goals. Institutions affect the range of available and desirable aims. This study is placed within the perspective on institutions that is known as historical institutionalism (Thelen and Steinmo, 1992). The discussion of Soviet institutional legacies in the Introduction shows how existing institutions constrained and enabled, and affected actors’ range of options, in post-Soviet Russia, making change more likely to occur in some directions rather than others. Historical institutionalism refers to this as path dependence.
In the analysis, we will see how institutions constrain state–company interaction even at the highest level, even when the rules are not formalised in writing. This resonates well in Russia, where the limited range of options for individual choice can be striking, particularly in the elite (Ledeneva, 2013, p.242). ‘Elite’ is here used in a conventional way, to delineate the rulers of Russian society and the economy, the governing elite, from the ruled, the population. It does not suggest strong cohesiveness among elite actors.

Actors are here seen to be both individuals and organisations. Organisations are groups of individuals bound by a common purpose to achieve objectives (North, 1990, p.5), but they cannot be the only players in the game here. Individual agency has been important in state–company relations in Russia, and in Russian politics in general. In the period under study, individuals sometimes acted according to their personal strategies, which could be inconsistent with the formally declared aims of the organisations they claimed to represent. This happened in all the cases here except Lukoil in the 1990s. This requires a view of actors that includes both individuals and organisations. In the analysis chapters, care will be taken to distinguish between individuals acting on their own and as representatives of organisations.

When approaching change and continuity in state–company relations, the terrain becomes more complicated. By seeing representatives of the state and companies as constrained by institutions, I presume there exists an institutional structure for their interaction. Change in state–company relations is institutional change, continuity is institutional continuity. But how is change possible at all, if actors are constrained by institutions that shape the playing field, the game itself, and their range of options in it? Here I note that while institutions constrain – or they would not be institutions – they do not determine. Choice and the
effects of choices made are ‘real but [...] also constrained’ (Nielsen et al., 1995, p.4). Actors may choose to introduce radical change.

Most obviously, radical change occurs as a result of exogenous shocks. The financial crisis of 1998 was one such shock to the institutional framework of the Russian state and Russian state–business relations. Actors responded by changing the institutions of state–company interaction in a number of ways, affecting most notably taxation. Arguably, the reforms of 1992 also subjected institutions to exogenous shocks. The changes in the state’s role in the economy were introduced by new actors, reform economists in the government, who intended to replace existing formal institutions in state–enterprise relations. But the effects of reform were closer to those of exogenous shocks to existing informal institutions among established state–enterprise relationships. Relying on North’s view of institutional change I hold that the formal rules ‘changed overnight’ by decree, but the informal constraints of state–enterprise interaction were ‘much more impervious to deliberate policies’ (North, 1990, p.6).

But institutional change can also be institutional breakdown caused by actors’ failure to respond to challenges. In changed circumstances, they disregard established institutions, which cease to act as constraints. Institutions no longer ‘make sense’ due to a loss of credibility, or may have decayed in the face of institutional competition (Offe, 1995, p.59-60). The boundaries between institutions failing to make sense and institutional decay are blurred, as the fate of the Russian state’s monopoly on violence in the 1990s illustrates. One may ask if the monopoly on violence failed to make sense because it failed to meet challenges from protection rackets internal and external to state organisations, or whether it

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5 ‘Enterprise’ is used when discussing unreformed economic organisations from the Soviet period up to about 1993.
just failed ‘manifestly’ (Offe, 1995, p.60) to constrain violent behaviour due to the preceding collapse of the Soviet Union. Qualitative decay and institutions that fail to make sense as constraints for actors are common components of institutional deterioration and breakdown.

Most of the time, however, institutional change is incremental. Even discontinuous change is ‘never completely discontinuous’ (North, 1990, p.6). There are elements of institutional continuity even during periods of visible change. This was the case in the years immediately preceding and following the collapse of the Soviet Union. Some constraints naturally lost their significance and relevance as circumstances changed. But the actors moulded other constraints to fit in their new environment.

In this thesis, institutional changes and continuities are seen as part of a continuous process of erosion, breakdown, and evolution: institutional dynamism (Thelen and Steinmo, 1992, p.16). This is again not a pre-determined process, but rather a process in which historically specific circumstances constrain actors’ options. Their choices, or inaction, when facing their options, result in institutional dynamism. Their choices also constrain, or enable, future options for development (Connolly, 2013, p.18). State–company relations in the energy sphere in Russia changed substantially between 1992 and 2012. The process of change during that time was however often incremental, with elements of continuity and stability, as actors adapted institutions to changing circumstances and challenges.

Thelen and Steinmo propose four sources of institutional dynamism. All can be illustrated by examples from (post-)Soviet Russia. Dynamic institutional evolution can be a result of institutional transformation, whereby previously less important institutions assume a central role as the context changes (Thelen and Steinmo, 1992, p.16). The monopoly on oil
transport by pipeline in the Soviet Union was a natural formality in the command economy until perestroika legislation allowed enterprises to make profits (1987) and relaxed the monopoly on foreign trade (1988) (Gustafson, 2012, p.41-47). This was followed by a struggle for control over suddenly lucrative oil export opportunities, an unintended consequence of Gorbachev’s reforms. Second, institutional evolution happens when old institutions are harnessed to new ends (Thelen and Steinmo, 1992, p.16), as in the 1990s when the Russian government discovered that the monopoly on oil pipeline transport, controlled by Transneft, could be useful as a means of exerting control in the oil sector. A third source of institutional dynamism is the adaptation by actors of their goals within existing institutions as a response to exogenous change (Thelen and Steinmo, 1992, p.17). The rising price of oil and gas in the early 2000s meant that Transneft acquired the financial instruments to construct new oil pipelines, and the company could successfully protect its pipeline monopoly, with government support, from potential domestic challengers and become a more forceful foreign policy tool. And finally, actors adjust their strategies to accommodate changes in the institutions themselves (Thelen and Steinmo, 1992, p.17). This happens in circumstances of rapid institutional crisis and change, often seen as a ‘punctuated equilibrium’ whereby institutional stability is ‘punctuated’ by a period of crisis and abrupt change (Krasner, 1984). The emergence of Gazprom as an autonomous organisation with a monopoly on gas export can be seen as a consequence of the adjustment of its founders, Viktor Chernomyrdin and Rem Vyakhirev, to the rapidly changing circumstances and the opportunities the monopoly now offered to profit from gas export.

These short excursions into institutional persistence in the Russian energy sphere emphasise another, related point about institutional continuity and change. Actors are
constrained by existing institutions. However, they are also uncertain about the future (Hall and Taylor, 1996, p.951). As there is an element of self-interest among political actors, they will try to maximise outcomes in their favour, even within the limited range of options that an institutional framework is here seen to offer them. In times of crisis and institutional breakdown, actors’ uncertainty comes to the fore, while the institutional framework can constrain and enable in new ways. Actors can respond to crises and modify existing institutions according to at least two strategies. They can become biased towards the status quo (Fernandez and Rodrik cited in Shepsle, 2006, p.1036) or towards only slight modifications in status quo. As institutions reduce uncertainty in interaction (North, 1990, p.6), maintaining them as stable as possible is a logical response from actors, perhaps none the more so than in rapidly changing environments. Another strategy is more radical. The examples of Gazprom (ch. 7) and Transneft (ch. 6) illustrate how institutions persist and survive in uncertain times also because they benefit powerful actors, who adapt institutions to their own aims as far as convention allows. Crisis can enable change based on self-interest. Some actors are more likely to recognise such opportunities for change. The most powerful actors are often those that are less uncertain than the rest, that is, it is the insiders closest to the existing institutional framework who can modify it to their best current advantage during crises. Crisis enables some actors more than others. This reminds us that contingency (Connolly, 2013, p.19-20) is an integral element of institutional dynamism. In periods of crisis, as constraints loosen, there may be a wider range of opportunities available to actors.

2.2 Institutional formality and informality in Russia

In studies of Russian state–business relations, the distinction between formality and informality is central. Without an understanding of informality and formality, analysis
easily becomes a superficial organisational mapping of state entities. It is often observed that informal relations and constraints trump formal distinctions and institutions. The methodological challenges of grasping how this happens are nevertheless considerable. In the 1990s, the discussion on formality and informality sometimes tied in with a strict division of politics and economics, where formal market institutions in the Russian economy were seen as subverted by informal politics (Hellman, 1998, p.204-205; Åslund, 1999, p.64-68; Hellman et al., 2000). Alternatively, authors who rejected a strict divide between politics and the economy would emphasise the importance of informality, reciprocity, and integration in the Russian elite (Peregudov et al., 1999, p.290; Frye, 2002). In the 2000s, informality became central to many approaches.

From 2000, Putin’s efforts to strengthen the vertical of power and maintain ‘equidistance’ with the ‘oligarchs’, 6 which resulted in selective treatment of business representatives, were taken as confirmation that formal rules remained subordinate to informal and personal relations. Several authors have integrated selective rule application into quite different analyses of the Russian system. Within a political economy approach, formal and informal rules work against each other (Robinson, 2011, p.437-438). Some argue that the formal order has been hollowed out altogether, leaving a state defined by ‘network-based governance’ (Kononenko and Moshes, 2011). Other scholars are more optimistic on the state’s behalf, but still note its empty façades. Sakwa argues that this is a binary political order in perpetual tension between an informal ‘administrative regime’ and a formal ‘constitutional state’ (Sakwa, 2010, p.190). Informal practice dominates by preying on the formal order. This happens when para-constitutional organisations like the seven federal

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6 The term ‘oligarch’ is used here in accordance with established practice and not to suggest that Russia’s major businessmen have common interests and outlooks in the period under study.
districts are established to enforce and enhance implementation of existing institutions (Sakwa, 2010, p.194). They subvert the spirit, but not the letter, of the formal constitutional order and its established institutional framework. The formal power vested in state organs is undermined by the power of informal decision-making and enforcement. Some of their formal and informal ‘standard operating procedures’ (Hall, 1986, p.19) are taken over by different and more powerful organisations outside the constitutional framework. The State Duma (hereafter the Duma) and Federation Council in this perspective possess less real veto power in the 2000s than the 1990s. The formal constitutional order does not disappear, and can possibly again be filled with real power to make decisions. By disappearing altogether, the formal constitutional state would deprive the informal administrative regime of its protective shield and render it meaningless and exposed. Both the formal and the informal are institutional contexts offered by the Russian state to actors, an argument which will be elaborated later in this chapter.

A strict differentiation between formality and informality presents us with a challenge when studying state–company relations. Informal practice and formal rule application take place among the same actors (organisations), often the very same people, perhaps in the same settings. So, in relations between state and business organisations, the complementarity of formality and informality seems more fundamental to interaction than the tension. Henry Hale, writing from a comparative politics perspective, emphasises the combination of ‘formal and informal presidential power to coordinate business support’ (Hale, 2010, p.38). Informality functions as an extension, elaboration and modification of formality (North, 1990, p.40). Also in Alena Ledeneva’s ethnographic study of Russian governance through power networks, to which she refers collectively as Sistema, the complementarity between formality and informality is striking (Ledeneva, 2013). So while
there is a fundamental tension wherever formal rules are applied only to punish the (informally) disloyal (Robinson, 2011, p.438), both the formal and informal rules are here seen as parts of one system.

2.3 Formality and informality in institutional development

The discussion of formality and informality in Russia points us towards another insight. Informal interaction enables a personal aspect, individual treatment according to principles of power. Formal rules applied rigorously are, under a modern constitution like Russia’s, impersonal and therefore do not discriminate according to rank or power. But when applied selectively, formal rules are in Russia used to reproduce differences in power and a system where power and the personal matters (Ledeneva, 2013, p.242-243). Networks place opaque constraints on any leader who relies on them to govern (Monaghan, 2012), because of the need to sustain the ruling coalition and maintain informal rent sharing. The emergence of impersonality, the constant codification, modification and specialisation in institutions that are essential to institutional development are therefore impeded. The balance between informality and formality can be seen as related to overall institutional development in Russia, and it shifts during the period under discussion here.

This is discussed in the literature on institutions in the Russian oil and gas sectors. Luong and Weinthal show how the outcome of domestic private ownership in the oil sector in Russia in the 1990s, exceptional in the global context, contributed towards a strong fiscal regime before 2005 (2010, p.121-180). They contrast this with the gas sector, where Gazprom engaged in implicit, informal bargaining with the government and received
protection for its monopoly in return for implicit taxes\(^7\) (Luong and Weinthal, 2010, p.169-172). Luong and Weinthal present a strong case for the existence of linkages between formal institutions that regulate state–company relations: formal and widely dispersed rent sharing (through taxation); and the development of financially healthy companies, in the Russian oil sector before 2005. The opposite set of linkages, in the case of Gazprom, facilitated informal rent sharing, and burdened the company with quasi-fiscal activities\(^8\) like subsidised prices. Naturally, quasi-fiscal activities impede the development of financially robust companies and harm the state’s financial health (Luong and Weinthal, 2010, p.54-55; 175-180). But implicit taxes and other quasi-fiscal activities enable state leaders to distribute rents informally within the elite and thereby dispense patronage. In effect, when a state manages resource revenue indirectly, by taxing private companies, this contributes to the development of institutions and organisational capacity in the state. Therefore, market making is also a process of developing state capacity (Wengle, 2012). Direct management, through state ownership, lets the state access rents directly, but state capacity does not develop as much and the state by necessity acquires a greater role in managing the economy.

Luong and Weinthal also argue that state leaders prefer state ownership and direct control, because they can then maximise sovereignty and control revenue directly. A state-controlled company like Rosneft, or Gazprom, is not always under real state control, but in making the initial choice, state leaders see state ownership and control as the more attractive option than ceding control to others. However, state leaders can retain ownership

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\(^7\) Defined as taxes that do not directly affect the government budget, usually ‘subsidies, directed credits, discounted production inputs, production quotas, and price and wage controls’ (Luong and Weinthal, 2010, p.34).

\(^8\) Defined as ‘activities that are not explicitly executed through budgetary mechanisms’ like implicit subsidies to consumers, preferential credits, tax arrears, subsidised inputs for selected industries, and extra-budgetary funds (Luong and Weinthal, 2010, p.39).
and control only when they are strong enough not to share with alternative claimants to state power (Luong and Weinthal, 2010, p.302), and leaders’ hold on power depends on dispensing the required amount of patronage (Luong and Weinthal, 2010, p.303). So when state leaders face losing their support base by retaining state ownership and control in the energy sector, they choose to share ownership and control with alternative claimants to power, and create private domestic companies (Luong and Weinthal, 2010, p.321). In their analysis, property is only seen in terms of state or private ownership, with or without direct control by the state. There is no discussion of how well property rights are upheld.

Firmly upheld property rights are, however, not a given. Property rights as an institution constrain differently depending on political context. In Russia, informality matters. This key point is raised by the new institutional economics. Like Luong and Weinthal, Gaddy and Ickes see Russia’s problem not in the rents, but in the institutions that organise the state’s ability to access and manage rent streams. They see the rent management system as the main institutional framework organising state–business ties in the energy sphere (Gaddy and Ickes, 2010b, p.292). Gaddy and Ickes also make the case that informal rent sharing gives the state more discretion to redistribute rents according to political preferences, that is, to dispense patronage. However, they point out, this in turn requires the deliberate weakening of property rights (Gaddy and Ickes, 2005, p.571). Resource streams, accordingly, bind the state and the companies together. There is a contrast between informal rents and informal institutions, and formal rents (extracted through taxation) and formal institutions. Informality again hinders development in both companies and the state.
2.4 Institutional development in a limited access order

In the wider context, I see informality, discretionary patronage, and their persistence, as part of a pattern of social organisation, a social order where rents produced in the economy work directly to secure stability in the political system (North et al., 2009, p.1; 30). Russia is here seen as one of many states where access to valuable resources and activities, as the formation of significant political and economic organisations, is a restricted privilege. In turn, the privileged form a ruling coalition and control the state. When forming the ruling coalition, the privileged also commit to managing violence among themselves and in wider society, and thereby avoid all-out wars (North et al., 2009, p.18-20). The rents they can access, and limit others from accessing, by remaining committed to the ruling coalition, are their rewards for keeping the internal and societal peace. This is how a limited access order works.

It has to be noted here that limited access orders are seen as different from open access orders (North et al., 2013, p.21-25). In open access orders, there is open access to the formation of political and economic organisations. Violence is subject to political control, and constrained by powerful institutions. Institutions like property rights are guaranteed and upheld by the state. Economic activity is subject to real competition. Rents, therefore, are dispersed throughout society in a transparent manner and not according to personal discretion within the elite.

The tension between informality and formality is part of the limited access order. Informality is here seen as an articulation of
the predominance of social relationships organized along personal lines, including privileges, social hierarchies, laws that are enforced unequally, insecure property rights, and a pervasive sense that not all individuals were created or are equal. (North et al., 2009, p.12)

Formal institutions exist and constrain interaction. Where they come into conflict with privilege, they are subordinated to a social imperative whereby stability and privilege should be upheld. Therefore, institutions constrain differently in a limited access order, compared to an open access order (North et al., 2009, p.15).

Zudin (2013b; 2013a) has developed the social order framework further as regards the development of institutions and organisations in a limited access order. The development of a limited access order is understood as a maturing process from a fragile to a basic and mature state (North et al., 2009, p.21). Importantly, in a limited access order, any division into ‘state’ and ‘private’ organisations is conditional and non-distinct (Zudin, 2013b, p.16). As the limited access order develops from fragile to basic and mature, state organisations become more specialised. The depth of specialisation among the organisations of state administration, the private economy and politics indicates the level of development in a limited access order (Zudin, 2013b, p.17). When they are fully autonomous of each other, it is an open access order. But as long as it is limited, as in Russia, relations between the ruling coalition (regime) and the state indicate the level of social order development. In a fragile limited access order, the ruling coalition substitutes for the state. In a mature limited access order, the ruling coalition represents the state (Zudin, 2013b, p.17). During the change from a fragile to a mature order, institutions become more important for interrelations within the elite. Intra-elite relations develop from constant and personal interaction to interaction regulated by (increasingly) formal institutions. Institutions are
increasingly enforced impersonally, regardless of privilege. Organisations, both proto-state and proto-private, turn less and less personal and depend less directly on their representatives (Zudin, 2013b, p.17). But as state organisations develop in tandem with non-state organisations, institutional development depends on the development of power relations within the ruling coalition – meaning that the level of state development depends on the regime. I return to this point later in this chapter.

For the purpose of my analysis, I will look for changes in specialisation among administrative, political and private economic organisations. I will follow the balance between formality and informality in the institutional frameworks surrounding companies, and possible differentiation in these frameworks. In particular, I will look for indications of a stronger role for the state, decreasing informality in state–company relations in favour of formality.

2.5 Resource rents and the Russian economy

Against this background, rents are a crucial part of relations between the Russian state and energy companies. They secure the existing social order. So to understand state–company relations, I need a basic understanding of how informal rent sharing came to be important and how it operates in Russia.

The socialist system was characterised by soft budget constraints and cross-subsidisation between sectors (Cooper, 2013, p.56). Cheap energy was a considerable source of cross-subsidies, waste and inefficiency. In addition to the general inefficiency of the planned economy, production costs were generally inflated by waste and inefficiencies. Actual production costs in the Soviet system can only be estimated (Gustafson, 1989, p.35; Gaddy and Ickes, 2005, p.560; 580). Energy intensity is a very rough, but useful indication of waste and inefficiency. For example, electricity intensity of output in the CIS economies was in the mid-1990s estimated to be more than double that of North America, or three times that of the EU average (EBRD, 1996, p.38).
economy, the Soviet economy also developed sectors and plants that would not have existed, persisted, or expanded, in absence of cheap energy. When the Soviet Union began exporting oil and gas to Europe and international markets in the late 1960s, the resulting rents were used to alleviate the effects of, and expand production in, inefficient sectors of the economy (Gaddy and Ickes, 2010b, p.293). The energy subsidy and other types of energy rent reinforced and magnified the structural specificities of the Soviet economy. These system-altering effects of energy rents addicted the economy to cheap energy (Gaddy and Ickes, 2010b, p.293). Interruption or withdrawal of rents would incur political costs that could disrupt the entire system.

Gaddy and Ickes argue that rent addiction is

an imperative to allocate rents to maintain and expand specific production sectors of the economy, notably those that the Russian economy inherited from its Soviet predecessor. (Gaddy and Ickes, 2010b, p.293)

By the 1990s, this imperative was significant for Russia’s limited access order. Rent extraction and distribution secured stability in the ruling coalition and was integral to the management of violence. Importantly for my discussion, the energy subsidy that in the Soviet period had been transferred by the centre was from the early 1990s dispensed by (some of) the energy companies under study here, especially Gazprom and RAO UES. The rents generated by oil and gas sales to international markets became ever more important to the Russian economy as a whole, as production in other sectors collapsed. Rent was channelled through taxation, especially of the oil sector, but also, significantly, through informal channels. The importance of informal channels increased as they facilitated the
division of rents from barter goods and illegal export. Across the economy, the income from oil and gas exports generated and supported inefficient production. This continued because the anticipated costs of withdrawal, like job losses and discontinued social benefit provision on a mass scale leading to popular unrest and elite upheaval, and a possible renegotiation of the ruling coalition, were seen as unacceptable by the elite. The companies studied here were integral to the social order.

Following Gaddy and Ickes, rents in the case of oil and gas in Russia are here defined as surplus obtained from oil and gas production, that is, economic profit (Gaddy and Ickes, 2005, p.560-561). Rent then equals

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\text{revenues minus economic, or opportunity, costs (including depreciation of fixed assets and a “normal” return of capital). (Gaddy and Ickes, 2005, p.560)}
\]

Calculating rent according to this definition is complicated. As noted above, nominal costs are inflated in Russia by excess extraction costs and informal taxes like bribes, while revenues are deflated by price subsidies. Excess costs, informal taxes and price subsidies have to be included with formal taxes and formal after-tax profits when calculating the surplus from oil and gas extraction (Gaddy and Ickes, 2005, p.561). The surplus, that is, the rent, accordingly comes in many forms: excess costs, informal tax, price subsidies, formal tax, and formal profit. Excess extraction costs are claimed by producers, subcontractors and suppliers, but also by individual employees on inflated staff rosters. Insofar as staff numbers are inflated by the dispensation of (mandatory) favours to top elite recipients, inflated staff rosters are the results of bribes and other types of informal
taxation. General price subsidies relieve consumers and industrial sectors of part of their energy spending in the short term, while engendering inefficiencies in the longer term (Luong and Weinthal, 2010, p.39-40). Informal taxes are often couched in the language of voluntary contributions, but are no less mandatory for energy companies than formal taxes. They are essential for continued operation. Bribes, inflated corporate spending on social services and healthcare, politically recommended corporate social responsibility (CSR) spending (Guriev and Tsyvinskii, 2011), culture and sports and philanthropy can all function as informal taxes. CSR programmes, generous healthcare provisions and spending on sports relieve the state and regional budgets of the burden of public services, or contribute towards achieving developmental goals set by the government. In this sense, the companies studied here can be seen as being at the messy fringes of the Russian state (Flinders, 2006, p.229). A state with a limited access order by definition has messy fringes. Finally, after-tax profits are generally distributed among owners (shareholders), which in the cases studied here include the Russian state. All these types of rent are relevant here.

The effects of the rent flow were not just economic. The rent flow shaped the political landscape. The 1998 crisis further increased the Russian state budget’s dependence on oil and gas rents. In 1996, energy represented 44 percent of Russia’s non-CIS trade and minerals, iron and steel another 21 percent, by value in US$ (Freinkman et al., 2004, p.64). In 2000, the corresponding numbers were 54.6 and 16.7 percent, respectively (Freinkman et al., 2004, p.64). The increasing oil price from 1999–2000 (Graph 2.1) exacerbated this tendency (Graph 2.2). Revenue from oil and gas exports followed the oil price, while the value of other exports increased at a much lower rate in the period and fluctuated less.
This form of rent distribution is not isolated to Russia, but was a feature of the Soviet system. In the Soviet period, the abundant flow of cheap energy was mostly directed from Russia to the other republics. Inherited energy dependence (Table 1.2) and rent claimants across the post-Soviet region contributed to a demand for Russia’s presence in the energy sectors of other states, because close relations with Russia could mitigate the economic and political effects of energy independence. Russian companies were central components of this Russian presence, and the rents from their post-Soviet operations were in turn channelled into their rent streams.

2.6 The shape of elite interaction across the politics-economy divide

In the Introduction, it was noted how a reduction of state–company relations in the Russian energy sector to that of a frame of politics vs. the economy closes potential avenues of investigation of Russian foreign policy. I will now briefly reiterate that point but with regard to the Russian state at home. In the 2000s, Putin’s policy of strengthening the state seemed to imply a break with the 1990s and a shift in power from business leaders to the state. After all, the links between the state and the private sector, and companies in general, were no longer so blurred. When approached as a two-sided state–business relationship, it was conceptualised as a replacement of ‘state capture’ by ‘business capture’ (Yakovlev, 2006; Sakwa, 2008, p.189). This did not take into account the extent to which company managers acquiesced, even if without enthusiasm, to the new balance between state and business actors. Stable and predictable policies were advantageous also to them. ‘Business capture’ and ‘state(-led) capitalism’ emphasised their collective powerlessness and underestimated their individual participation in the new configuration. As argued by Neil

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10 I prefer the term ‘company’ because Soviet enterprises, and initially post-Soviet companies, were not firms with full control of their business functions as in a market economy. Post-Soviet companies needed considerable time to reorganise into self-contained businesses (Adachi, 2010, p.4).
Robinson, such terms can easily inflate the break between the 1990s and 2000s so often emphasised by Putin (Robinson, 2011, p.438). The idea that a neat delineation could be made between ‘the state’ and ‘business’ was not a good guide to the markedly differentiated, personal exchanges that still took place among top politicians and businessmen. In this respect, while the 1990s and the 2000s displayed different personal exchanges among top politicians and businessmen, they were just as significant in both decades. At the top, there was still no arm’s-length, impersonal relationship between political leaders and top company leaders. Rents still flowed according to the demands of stability and patronage, requiring individual approaches to companies’ property rights in return. I therefore prefer to see actors here in terms other than simply ‘state’ and ‘business’.

In the rich literature on intra-elite interaction in Russia, the integration of politics and the economy is a key point of departure. There is considerable continuity here with the literature on late Soviet policymaking and clientelism in the Soviet system (Hough and Fainsod, 1979; Almond and Roselle, 1990; Willerton, 1992). Also for the post-Soviet period, there exist several studies of reciprocal relations and shared interests among company managers and politicians, to the extent of rendering the two sides to the relationship indistinguishable. To some, the 1990s saw a broad and informal elite consensus, an ‘oligarchic corporatism’ aiming to maximise rents among elites (Peregudov et al., 1999, p.290). Others emphasised the strong elements of exchange across various elite levels (Frye, 2002). At lower levels, fragmentation and loose networks were likely just as prevalent as stable exchange relations (Lehmbruch, 1999; 2001), but the top elite level seemed more integrated. This could be seen as mutual dependence, or ‘oligarchic capitalism’ (Rutland, 2001, p.14-26). To others, the fusion of state and economy reached a
level where the central state apparatus consisted of clans (Wedel, 2001, p.17). In an extreme interpretation, Russia under ‘clan capitalism’ was seen as ruled by hierarchical clans that could be separated into ‘top clans’ (operating at top level), sectoral clans, regional clans and criminal clans (Kosals, 2007, p.77). The term ‘clan’ in particular suggested a degree of coherence, and a pyramid-like structure, within elite groups that did not correspond to actually quite fluid and variable interactions between state and company representatives (Ledeneva, 2013, p.34-35).

These are strong synchronous interpretations of elite interactions in Russia, with much insight into patronage networks. They are, however, less useful as guides to change over time and the overall workings of the state. This drawback obtains even in the strongest of the recent network-based analyses (Ledeneva, 2006; 2013). Nevertheless, they offer valuable insight into the informal institutions that structure state–company relations. Here, interactions are expected to be less coherent, more fluid, and above all, variable from case to case and over time. I expect to find a loose system of multiple actors bound more by convention than by strict hierarchy, even as the formal hierarchy also guides interactions, especially those between the president, his administration, and other parts of the top elite.

2.7 Energy companies as concessions

As discussed earlier in the chapter, the conventions of discretionary elite interaction uphold informal rent sharing and thereby maintain political stability, but they also inhibit the development of robust, formalised institutions of state–company interaction. This is part of the limited access order. As regards Russia, Gerald Easter’s concept of ‘concessions capitalism’ (Easter, 2008; 2012) offers a succinct analysis of how economic development is impeded. Concessions exist in the most lucrative and strategically significant parts of the
Russian economy, which can be seen as an ‘upstairs’ to the ‘downstairs’ of the politically insignificant small and medium sized enterprises in the private sector (Easter, 2012, p.169).

Energy resources and monopolies are instances of such concessions. Former Soviet ministries and large enterprises in the energy sphere were retained largely intact, or partially retained and reconstituted through a series of presidential decrees in 1992. Nuclear energy was not subjected to privatisation. In July 1992, the oil, gas and electricity sectors were explicitly exempted from privatisation. In November, the gas and electricity sectors were reorganised into shareholding companies controlled by the state. Structural reform in these two sectors was delayed repeatedly in the 1990s. The Soviet oil sector had disintegrated in the Gorbachev period and been subjected to considerable commercialisation by insiders (Gustafson, 2012, ch. 3). Another November decree legalised the process and allowed privatisation in oil production, processing and distribution (Decree No 1403, 1992). The same decree exempted oil and oil product pipeline transport from restructuring and privatisation.

Legislation for the energy sectors was formed in a wider process that established a division between state and private ownership. The large gas, electricity, nuclear and oil transport monopolies remained nominally in state hands, but with considerable scope for a de facto erosion of state participation. While most energy companies belonged to the state in a formal sense, not all were managed directly by the state. Some were farmed out to privileged members of the elite, or at the very least, to supporters of the ruling coalition. Regulation of these companies was subject to the discretion of high-level state actors (Easter, 2012, p.169). The institutions that structured state–company interaction
subsequently changed, but the companies remained fundamentally supportive of the regime.

When concessions were handed out under Yeltsin, they were not fully protected as private property. Boundaries remained blurred. With unsettled and unclear ownership and control in energy companies, their managers had good reason to invest in relational capital and share the rents (Gaddy and Ickes, 2005, p.571). By keeping the rent flowing through their companies while the future organisation of entire sectors was unknown, managers and owners made themselves and their companies indispensable in the Russian social order. This meant that managers, state actors and wider sections of the elite and population had stakes in maintaining the status quo with regard to ownership and monopolies. Energy became, and remained, a truly political business. This recalls the way in which big economic organisations in a limited access order are ‘necessarily also political ones’ (North et al., 2009, p.268-269). Moreover, relations between state and companies, whether state- or privately owned, were structured by patronage ties that bound members of the elite to each other across any nominal divisions between the state and the private (Fish, 2005, p.166-167; Zudin, 2013b, p.19). As I will show, this lack of differentiation between state and private interests occurred also in companies nominally controlled and owned by the state. Formal ownership diverged from de facto control. However, while managers’ actual control of companies moved them beyond the formal institutional framework and made it appear irrelevant, their control was secured by informal rent sharing in return for political support.

Privileged access to concessions still depended on personal relations within the ruling coalition, and was not guaranteed as impersonally held property rights. The strengthening
of the state under Putin meant that concessions managers were called back into state service (Easter, 2012, p.170). By state service, I here mean revenue – not just formal taxes that benefit society as a whole, but also the familiar, quasi-fiscal activities (Luong and Weinthal, 2010, p.134) or informal rents (Gaddy and Ickes, 2005, p.565-567) that include broad, selective rent sharing through price subsidies, informal taxes like bribes and selected charity, and excess costs in staffing, transport and infrastructure. All these were maintained and some expanded in the 2000s, but they were also tied more closely to the ruling coalition.

This has profound implications for state–company relations in the energy sphere. For the purposes of this study, the starting point for a definition of the state is that the state and the companies are not fully autonomous. I have rejected an a priori separation of politics and economics, and now I pursue this thread logically to see the Russian state as possessing limited autonomy from society, yet remaining a source of power for a regime. In the process, I consider also the question of which instruments the state offers the regime.

2.8 Towards a definition of the state

Comparative political scientists have drawn attention to the weakness of both the Russian state and Russian society (Roberts and Sherlock, 1999; Sperling, 2000, quoted in Easter, 2012, p.12 fn. 18; Easter, 2002). Russia has been seen as an ‘incapable’ state that ‘operated in an institutional void’ (Easter, 2012, p.12). Disconnected and disorganised state and societal actors, including business, therefore fell back on the well-known practice of patron-client relationships (Easter, 2012, p.12). Economists have often seen the combination of weak society and strong state as a ‘predatory state’ (Hedlund, 1999, p.324-329), a ‘grabbing hand’ (Frye and Shleifer, 1997), or, in the absence of unity within elites,
even ‘competing kleptocracies’ (Hedlund, 1999, p.329). While a ‘weak state/strong business’ view and the ‘strong state/weak business’ view both distinguish between state and business actors, the ‘weak state/weak society’ view emphasises instead the integration of politics and the economy to the detriment of development in both state and society.

In the energy sector, the weak state, weak society combination has been seen to produce a ‘rentier oligarchy’, which enriches itself at the expense of everyone else (Luong, 2000, p.38-40). In the 1990s, enrichment led less to unity in the elite than to fragmentation. The state fragmented into constituent sectors and regions, with energy remaining closely linked to central state organisations. The fruits of enrichment, the rents, were not, however, all siphoned off, but distributed through informal rent sharing. Selected sections of society received ‘trickle-down income’ from the ‘oil-dependent economy’ (Ledeneva, 2013, p.278). This is possible where patronage networks structure interactions between the elite and the general population. In return, elites could rely on ‘political machines’ (Hale, 2010, p.35-37) that delivered votes and stabilised the wider population.

The weak state/weak society pattern of post-socialism is accordingly a specific one. State and society are linked through informal institutions, patronage networks, which extract rents from some companies, in various ways, and distribute rents to various claimants in the elite and wider population. When we look at the Russian state in terms of the institutional context it provides for actors (Hay and Lister, 2006, p.10-11), my argument is that the constraints of patronage networks are interlinked with and embedded in the formally articulated institutional context of the state. This means that the state cannot act autonomously of the elite, but remains in an ambivalent relation to it. Patronage and the resources of the state, and ultimately regime stability, depend on the extraction of rents.
There is an imperative for state actors to protect the privileged extraction of rents, and this is why there are opaque constraints on those who rely on networks to govern (p. 38).

But the state is not only institutional context. States are also defined by their power, which is exercised by state organisations according to an institutional framework. And here I rely on a statist position. I see state power as consisting of despotic and infrastructural power. Despotic power refers to the range of actions that state organisations can undertake without routine negotiation with society, in effect, policymaking (Mann, 2012 (1993), p.59). This, in turn, reflects the extent to which state organisations are enabled, through the institutional framework, to realise state autonomy. Infrastructural power is the institutional capacity of a state to ‘penetrate its territories and logistically implement decisions’, in effect, implementation (Mann, 2012 (1993), p.59). Based on Mann, I see the Russian state in the 1990s as lower in both despotic and infrastructural power than in the Soviet period. In the 2000s, both despotic and infrastructural power increased.

When Putin came to power, he subordinated the fragmented public sector and its constituent political machines to himself and his supporting coalition (Gaddy and Ickes, 2005, p.571; Hale, 2010, p.35-37). Regional governors, the major challengers of the central state in the 1990s, were weakened as state organisations and economic sectors were modernised (Wengle, 2012, p.449-450). This strengthened the infrastructural capacity and despotic powers of the state. However, Putin then exercised state autonomy in a partisan way, turning the state’s increased policymaking powers to the advantage of the ruling coalition. This was particularly visible in his selective approach to enforcement in the energy sector. The potential to develop a measure of state autonomy vis-à-vis the ruling coalition and enforce general rules in an impersonal way was not realised. There was
therefore less need for state organisations to engage in routine negotiations with the elite when shaping policy. With greater despotic power, the ruling coalition, the regime, could rule through the state. But the result for the state was that it was now a hostage to the ruling coalition. This is the paradox of a limited access order: the state can enforce contracts among companies as an impersonal third party where privileges are unaffected. When it comes to relations within the top elite, including concessions, enforcement is based on privilege and carried out by the ruling coalition, the regime (North et al., 2009, p.18-20). Where the regime is concerned, the state is partial.

But the subordination of fragmented political machines to one regime also strengthened the infrastructural power of the state. State actors now gained easier access to resources that were previously subject to negotiation with heads of sectors, regions, and companies. Increased despotic power led to an increase in infrastructural power. Where the state’s reach ended, it could compel energy companies to fund services and thereby substitute for state organisations. The state could penetrate its territory and energy sectors to a greater extent and more effectively. Institutional frameworks were now upheld and implemented to a greater extent.

2.9 States and regimes

This means that while a wide variety of contemporary states may appear to offer somewhat similar institutional frameworks for state–company interaction, the informal conventions of a limited access order reflect a different logic from that of an open access order. The institutional framework constrains according to the social order’s logic. This has been noted by scholars with a comparative politics perspective on contemporary Russia, who have aimed to define the Russian regime. The Russian political system has been seen as a
hybrid regime (Diamond, 2002) and a competitive authoritarian regime (Levitsky and Way, 2002; 2010), one of a large group of regimes with democratic and autocratic elements. In such regimes, political leaders can translate access to economic resources into advantages or control in the political sphere, for example, through an ‘ability to selectively direct vast resources of material wealth and power outside the formal institutional channels’ (Hale, 2005, p.138).

In turn, this ‘discretionary economic power’ undermines formal democratic procedures, like elections (Levitsky and Way, 2010, p.66-67), by ‘skewing the playing field’ (Levitsky and Way, 2012, p.30). This suggests the likelihood of incumbents employing state power (Levitsky and Way, 2010, p.56-61) for their own advantage, that is, the stabilisation and perpetuation of their position and, thereby, of the political regime. These authors implicitly see authoritarian state institutions and organisations as different from democratic ones. I prefer to see this difference as a difference of social order. The immediate access of political leaders to economic resources in a limited access order, and the role that privileges and personal connections play in providing both political and economic power, are the keys to understanding why institutions constrain differently. If the net is cast wider, to compare not politics but political economies, it is possible to compare authoritarian and democratic institutions. The difference between them comes through less in terms of design differences, but more in terms of implementation. The institutional framework around Russian energy companies may resemble those of its peers in many other states, including democratic and autocratic regimes. But in Russia (and other states), institutions like property rights are implemented differently, in a social order context in which privileges define the scope for exercising a right that exists on paper.
From the literature on political outcomes, I take away a distinction between state and the regime, understood here as a more or less cohesive collective of the incumbent and coalition in control of the state. The regime is only in possession (albeit perhaps not fully) of the state. It is not equal to the state. The regime employs the state apparatus for its own ends (Gaddy and Ickes, 2005, p.571 esp. fn. 525; Sakwa, 2010, p.194), and the selective rent distribution may certainly resemble a ‘kleptocracy’ (Dawisha, 2011). But this is only one side of the social order. This is also the arrangement that upholds stability and manages violence. The stability may be temporary and drive the economy to stagnation, but the alternative, short of a painfully negotiated change of regime, remains more widespread and uncontrollable violence.

2.10 State capacity and authoritarian durability

All the same, the regime does prey on the state. This point is raised by Lucan Way, who counts state power as one of the sources of authoritarian capacity (Way, 2005, p.235). He sees authoritarian state power as fundamentally different from the powers of a democratic state, while I rely instead on the concept of social order. How can I then approach the relationship between states and regimes? Dan Slater and Sofia Fenner argue, in a discussion of authoritarian durability, that ‘state power is the strongest institutional foundation for authoritarian regimes’ staying power’ (Slater and Fenner, 2011, p.16). They see state infrastructural power, as defined above, as very helpful to autocrats. Regime actors can deploy state infrastructural power through a set of infrastructural mechanisms, in order to enhance authoritarian durability (Slater and Fenner, 2011, p.19). The infrastructure is the state’s, but the regime deploys it to its own ends and, over time, shapes it. Slater and Fenner outline four mechanisms as particularly helpful for autocrats (Slater and Fenner, 2011, p.20). First, the state possesses a coercive infrastructure with coercive
capacity, which autocrats can use to coerce rivals. Second, mechanisms of resource extraction can be used to maintain the power advantage over society (Slater and Fenner, 2011, p.21). I here see these mechanisms as working both through formal taxation and informal rent management. Third, the mechanisms that register the population can be employed to monitor the population and target suppression, accommodation and negotiation with groups (Slater and Fenner, 2011, p.21-22). And fourth, state infrastructure is used to cultivate dependence in the elite and wider population, giving them a stake in the status quo. Regimes can use dependence (on jobs, incomes, services and possibilities for a better life) to enhance stability (Slater and Fenner, 2011, p.22-23). The better the command of state organisations over state infrastructure, resource extraction, monitoring, accommodation and negotiation, and the more it cultivates dependence, the more state capacity increases.

So autocrats and their supporting coalition shape these mechanisms, and the institutional frameworks that enable state organisations to enact them, to their needs. Regimes will strengthen the state, and weaken it, according to the imperative to remain in power by managing violence and distributing access to rents.

For state–company relations, this means that companies differ not just in their relationships to the state, structured by ownership, state hierarchy (ministry), or private ownership, but also according to their relationship to the regime. They all have a place in the rent distribution system that supports the ruling coalition. Their institutional contexts are also shaped by their rent-sharing responsibilities and privileges. Or, put differently, it matters to companies who is in control of the Russian state. Their continued existence, as they are today, depends on their relations with the regime, and they are not guaranteed survival
beyond the duration of the current coalition. So the mutual dependence between top members of the ruling coalition in charge of the state, and company managers aligned with the coalition, is an asymmetric one. Company managers know that a war of all against all is a likely alternative to the status quo. Even when the regime relegates them to the status of junior partners, they still prefer the status quo (Yakovlev, 2014, p.16). A reduction in rent aggravates tension within the elite (Yakovlev, 2014, p.14), but company managers are loath to embark on a risky renegotiation of the ruling coalition. The asymmetric power relations within the ruling coalition, a result of the regime’s use of state power as a source of strength, are therefore powerful supports for the status quo. The lack of restructuring and renewal in Russia after 2004 (Aleksashenko, 2014), and the unanimous support of top company managers for Putin’s policy towards Ukraine and the annexation of Crimea in 2014 underline how much they all depend on stability. This support remained in place as oil prices were halved and the costs of economic and foreign policies under Putin became apparent.

But state capacity and regime stability ultimately also depend on the company managers. This is not just because they manage and channel the rent streams to the ruling coalition. It is also because they represent state infrastructural power in two of the three other meanings outlined here. Due to the Soviet legacy infrastructure, they extend into the post-Soviet region. They can be employed to coerce rivals at home or exert pressure on governments of other states through the cultivation of dependence on their services. In this sense, I see them as tools of the state. To very different degrees, they are at the regime’s disposal. Sometimes, this is negotiated access, at other times, it is direct. Their institutional contexts are also affected by this dimension of their interaction with the state.
2.11 The theoretical framework, summed up

This thesis starts from the premise that institutions structure the environment for actors. In a limited access order, however, institutions constrain differently than in an open access order. There is an imperative to uphold privileges, including the privileged extraction and sharing of rent, and thereby maintain stability in the ruling coalition. This leads to a dominance of informality and personal relations over formality and impersonal relations, in central parts of the institutional framework, like the rent management system and property rights protection. But informal institutions, informal rent sharing and weakly protected property rights inhibit the development of state capacity and of financially healthy companies. However, such a set of linkages enables the ruling coalition to dispense patronage and, thereby, maintains authoritarian durability. In contrast, formal institutions, formal and widely dispersed rent sharing through taxation, and strongly protected and enforced property rights enable the development of state capacity and of financially healthy companies. The ruling coalition cannot on the other hand dispense patronage easily and readily, and authoritarian durability is therefore weakened.

In Russia, a resource rich state, the rent management system is a central institution that structures state–business relations and upholds the social order. Privileged access to property, and protection for property control, depend on property owners’ or concessionaires’ (in case of control over state-owned companies) maintaining personal relations with the ruling coalition, and sharing rents with it, formally and informally. To the extent that the ruling coalition compels company leaders to rely on personal relations and informal rent sharing with state actors to protect managers’ control or ownership over companies, the ruling coalition also rely on the same company leaders to enhance authoritarian durability.
The ruling coalition, here called the regime, is in charge of the state and its institutional development. In turn, the regime also preys on the state by using the institutional context it provides and its power mechanisms, for enrichment and to remain in power. To enhance authoritarian durability, the regime uses the state’s infrastructure for coercion, resource extraction, registration and monitoring of the population, and to cultivate dependence on the state and the regime. When access to property, here, companies, also includes access to state infrastructure, companies can be used as tools of the state. However, because a regime in a limited access order uses the state to remain in power, the same compan(ies) can also be used as tools of the regime.

The relationship between the state, the regime and the company can extend beyond the state’s borders. In the case of Russia and the post-Soviet region this is first and foremost due to the continued existence of contiguous infrastructure for energy supply and transport. Other post-Soviet states were to a considerable extent dependent on this infrastructure, controlled directly or indirectly by Russian energy companies, to access energy, but also to access markets for energy resources under their own control. Inherited energy dependence on Russia turned Russian companies into potential tools of the Russian state also in relation to the post-Soviet region. To the extent that the Russian state controlled or influenced energy companies’ access to business activity (operations) in the post-Soviet region, the relationship between Russian energy companies and the Russian state extended into the post-Soviet region. In this way, the Russian state, and the regime in possession of it, could extract resources, coerce and cultivate dependence on the Russian state in the post-Soviet region by using energy companies as foreign policy tools.
2.12 Operationalisation

To apply this conceptual framework to the cases, I rely on the three main research questions that introduced this chapter: (1) How did relations between energy companies and the Russian state change in the period under study? (2) How did these relations change as regards company activity in the post-Soviet states, and (3) as regards Russian foreign policy towards the post-Soviet states?

To answer these questions, I rely on the following operational tasks and questions. First, I look for changes in the structure of interaction. These include formal changes to formal institutions, but, as discussed, this is only part of the institutional context the state offers companies. The structure of interaction is affected by actors’ use of access and participation insofar as actors adapt institutions, and their own aims and strategies within the institutional framework. They may grant each other, or withhold, access to institutions and policymaking, and they may participate, or not participate, in institutional development and policymaking. By seeing this as a process of mutual adaptation, I here mean that the actors adapt to each other. This part of their interaction is to some extent available for investigation.

Where access, participation and mutual adaptation take place, I investigate the balance between formality and informality in the institutional framework, especially as regards rule enforcement. Are there any observable linkages between direct management, informally extracted and distributed rents and informal bargaining for political support on the one hand, and indirect management, formal rents and formal bargaining over political support on the other? Are property rights and monopolies weakly or strongly protected, or defined more or less clearly?
Above all, changes in the balance between formality and informality would be expected to affect the composition of rents. Are there any changes to that composition, in transparency surrounding rent extraction and management, or increasing institutionalisation of rent extraction and distribution? Considering the dependence on cheap Russian energy in the Soviet period, I am also interested to see whether rent extraction and distribution extend into the post-Soviet region.

Second, I need to relate changes in the structure of state–company interaction to Russia’s evolving social order. A limited access order evolving from a rather basic to a more mature state would be expected to display increasing specialisation and institutionalisation among organisations, and a growing emphasis on rights that are upheld impersonally as opposed to privileges that are upheld individually. The state would be expected to grow stronger as the ruling coalition changed from being the state to being a representative of the state. So I start by asking whether the importance of privileges changes over time. Are there any indications of a greater degree of impersonally enforced rights in state–company interaction? Are there any conflicts between formal institutional frameworks on the one hand and concessions and privileges on the other? In the event of such conflicts, are they resolved differently at different times? Is it possible to observe differentiation between state and private interests in rent extraction and distribution?

On institutionalisation, I look for growing regularity and indications of routine and certainty, as opposed to personal contact and possibly uncertainty, in state–company interaction. Just as importantly, I ask whether organisations grow increasingly specialised? And lastly, does the role of the state, as distinct from the regime, grow stronger or weaker with time?
My third set of questions concerns power relations. Mutual adaptation among actors also reflects asymmetric power relations within the ruling coalition, with top state actors achieving greater autonomy and, in consequence, greater despotic power. I am here interested in the asymmetric dependence of companies on the regime, and changes to these relationships.

The final set of questions for analysis concerns the content of interaction. When I see the companies as state infrastructure and potential instruments, are there any differences over time in how they are used by the regime? Are they used to stabilise the regime? Do they cultivate dependence on the state, and/or are they used as means of coercion? If they cultivate dependence on Russia, is dependence used as a coercive mechanism? If they are used as tools in the post-Soviet region, are they used directly as constituents of a regime, or is their use negotiated? Is it possible to make any inferences on any possible relation between the assumed direct state access to resources after 2000 and changes in foreign policy?

And lastly, it has to be kept in mind that changes in the structure of interaction, the evolving social order, power relations and the content of interaction are not expected to conform to any idea of progress. I do not expect any linear development towards increasing formality, institutionalisation, specialisation, more rights and less privilege, a stronger state and a weaker regime, more indirect use of companies as tools, etc. While some of the questions that guide my analysis are formulated in such terms, changes can occur in both directions. While Russia in 2012 was very different from Russia in 1992, change is not equal to progress in this thesis.
2.13 This investigation as a qualitative inquiry

The subject matter of this thesis lends itself easily to qualitative methods, being complex, detailed, and bounded in time and space (Ragin et al., 1996, p.750). On this basis, an inductive approach recommended itself. I found current theories and concepts underdeveloped, and with insufficient explanatory power when approaching state–business relations in Russia, and particularly when observing the resonance of these relations across the post-Soviet region. I developed an initial theoretical position based on the literature on Russian energy operations in the post-Soviet region. This was that overall relations between the Russian state and Russian companies, at that research stage conceptualised as different varieties of (vaguely corporatist) policy networks, influenced policy formation for the post-Soviet region. This position was later revised, as summarised in 2.11. In contrast with much of the contemporary literature, the starting propositions were that Russian energy companies aimed both to make profits and to further Russian foreign policy, and that companies were likely to differ in their balance between profits and politics.

I decided at an early stage of the research process to study cases of energy companies’ interaction with Russian state actors. The rationale for choosing companies as case units was based on the initial theoretical position, which suggested comparing companies. In the course of the investigation, I abandoned the idea of a clear balance obtaining between politics and profits as of little value to our understanding of both Russian domestic politics and foreign policy, and to the analysis of the cases. It did not survive my familiarisation with the field and the contexts with which interviewees themselves saw themselves involved. Instead, politics and profits were intertwined, and politics affected profits. Moreover, when I approached the first interviews with an aim of concentrating on state-company relations under Vladimir Putin, the interviewees emphasised the importance of
the history of state–company ties. This history extended further backwards than I had anticipated, even as I was already rather familiar with contemporary Russia. Historical and contextual sensitivity (Silverman, 2005, p.84) demanded a revision of the design to include change and continuity over a longer period.

The observable difference between companies persisted and warranted systematic analysis. Identifying, applying and developing the most useful analytical categories (Pope et al., 2000, p.114) then became a major task in the research process. The definition of cases moved from ‘cases as companies that interact with the state’ to ‘cases as state–company interaction’, and the starting point of the investigation was moved back in time from 1999 to 1992.

Systematic data analysis also yielded an emphasis, from the companies’ point of view, on the centrality of relations with the top Russian leadership, both government and presidency. The concept that first emerged as a clear finding in the data was ‘monopoly’, with a contrast in private ownership. There seemed to be a difference in relations with state organisations between companies that held some sort of monopoly at home and those that did not. For the companies that held monopolies, it was important to retain it. In this way, the iteration that takes place during a qualitative research process (Spencer et al., 2003, p.212) led the investigation towards an even greater emphasis on institutions. Relying on historical institutionalism in a study of institutions in state–company interaction in their own setting (Thelen and Steinmo, 1992, p.12-13) became then a natural choice, also in view of the case study design.

To sum up, the research process was problem-driven and aimed at building a narrative. The narrative was increasingly throughout the process informed by theory. Data analysis
yielded categories and concepts, and related them to each other. These early findings were interpreted in light of theory. However, the early findings also informed a search for a theoretical framework that could explain as much as possible, as parsimoniously as possible. I then went back to the data, and searched for more complete data, to develop the narrative in each case according to the theoretical framework. Towards the end of the research process, I interrogated and modified the conceptual framework until it informed the analysis to such a degree that other explanations paled in comparison (Bates et al., 1998, p.17).

2.14 A five-case study

As discussed in the Introduction, the choice of cases for this study was based on the view that it was important to include state–company relations both within and without the oil and gas industries, for comparison and contrast of the general phenomenon (Silverman, 2005, p.127). While industry-specific, or fuel-specific, explanations cannot account for all the cases here, political and economic ones can. There are considerable interaction effects between natural monopolies\(^{11}\) (pipelines, grids, nuclear fuel) and a propensity for (continued) state ownership and control. But by approaching the cases as cases of state–business interaction in institutional development, it is possible to establish whether the informality and formality of rents and institutions, related to social order development, matter for domestic and foreign policy by making the companies more, or less, available as instruments of the state.

Constant comparison (across cases, over time) was a path to validity in the study (Silverman, 2005, p.213-214). Even as findings were not expected to be applicable to

\(^{11}\) A natural monopoly is capital intensive, has a large economy of scale, and a single seller can supply an optimal quantity of throughput at the lowest possible total (Omonbude, 2009, p.129; Ericson, 2012, p.622).
state–company relations in other countries, five cases studied longitudinally would make the findings more readily transferable and generalizable across different sectors in Russia, particularly where interaction concerned foreign operations. In the course of the investigation, the initial assumption of a balance between politics and profits was refuted, and this unexpected turn of events strengthened the validity of this study (Silverman, 2005, p.212-213). The emphasis on institutional and social order development, and the development of the Russian state, which emerged, made the theoretical insights here relevant to other sectors and states as well.

The breadth of cases resulted from a stratified, purposive sample strategy (initially ‘one company for each energy sector’), but it led to an understanding of how the companies share certain central characteristics as legacies of the Soviet system and were therefore more similar than initially expected. Essentially, they were comparable (Ragin et al., 1996, p.752) also for the institutions that structured their relations with the state. Eventually, they facilitated a more nuanced understanding of institutional similarities, and unexpected parallels emerged.

Case selection also opened for the possibility that the privately owned Lukoil would be a most different case in its relations with the state. This turned out as expected, thus enabling a contrast to be made with the other cases. The investigation also revealed interesting similarities and nuances between Transneft, Minatom, RAO UES and Gazprom in their relations with the state. While their relations with the state at home and their instrumental use by the state abroad were largely similar, these relations still differed in certain characteristic ways. Taking a comparative political economy approach, it made sense to return to the data and ask what it is about state–business relations that makes companies
more or less available as tools to the state. This shows how a narrative with theory is more powerful than one without (Bates et al., 1998, p.236).

2.15 Sources and data

This investigation relies on material in newspapers, statistics from Russian official sources and the companies themselves, annual reports and other information from companies, official government documents and legislation, articles in trade journals, transcripts from WikiLeaks, reports issued by various international and non-Russian government organisations, scholarly literature, as well as interviews with company representatives, energy scholars and analysts (Appendix 2). Newspaper and trade journal material, and interviews, were the most significant primary sources, followed by government documents and legislation. However, the same sources also provided considerable secondary source material.

I made use of this wealth of sources mainly in two ways. First to obtain factual information about energy operations and foreign policy, and second to obtain an insight into mind-sets, policies, priorities and subjective analyses about particular episodes and processes (Richards, 1996, p.200). The interviews were particularly valuable for this second purpose. Interviews were semi-structured, guided by a flexible list of themes and possible questions (Richards, 1996, p.202) targeting the interviewee in question. I used broad introductory questions instead of confining the conversation to the pre-defined list (Rapley, 2007, p.18). On several occasions, valuable interview time was lost as interviewees used their superior position of power (Richards, 1996, p.201) and dodged questions. With the targeted questions, above all I tried to understand interviewees’ analyses of energy sector and company relations with the state, and how they had changed over time. I specifically asked
several interviewees about how they would divide the state’s relations with one or several energy sectors into periods, and possibly connect changes and distinctive periods to wider changes in the state and in the political economy. Depending on interviewees’ role in relation to a specific energy sector or company, I asked them to place the company or the sector in relation to the state, politically and economically (over time), and their views on the importance of being, for example, state owned, privately held, or in control of a monopoly. This was followed up with more specific questions on topics like expectation of support from the state, and state expectations of company loyalty. An issue raised in relation to foreign operations and specific policies, for example transit avoidance, was the extent to which interviewees saw this as national policy or company strategy. I also asked about the significance of top leaders and their teams. Several interviewees were frank and responded in depth to most of these issues, even as some were inclined to use the opportunity to talk about broad topics to dodge the question. The general and understandable exception was that company representatives were not inclined to comment much on company leaders.

To sum up, during interviews I sought to have interviewees walk me through their own, personal analysis of state–company relations, or state–sector relations where this was more relevant. In addition to enriching the research process with a wide variety of subjective analyses, the interviews also gave me a much better and more nuanced understanding of mind-sets in the energy sector. A comment about how a sector, or a company, would have related to the state at one point, compared to later, several times pointed me towards issues that I had previously approached as less relevant, or understood in a different context. In this way, interviews played a formative role in the research process, by helping me to structure and connect arguments. As I also engaged in intermittent, informal discussions
with knowledgeable insiders from the energy sphere, in Norway and Russia, I had a natural testing ground for the concepts and inferences occasioned by interviews.

Several interviewees preferred me not to cite from interviews, or not to refer directly to issues raised during interviews. As some issues had come up in more than one interview, it would not be accurate, or fair on interviewees, to cite one, but not another. This challenge was solved by not citing interviewees in the text. Instead, I used interviewees’ responses in the search for more complete written sources, like newspaper articles, that could be, and were, cited. Appendix 2 has more detailed information about how I conducted interviews, and a list of interviews.

All factual information deriving from sources, especially newspapers, other journalistic material, and interviews, was treated with care. Checking and confirming information were a priority. Sources were compared as far as possible. Reliability was assessed for every source, and I made it a priority to assess individual journalists. Most sources were biased in some way on state–company relations, and the bias was not always easily teased out. Bias in newspaper reports was to some extent understood through informed reading of trade journals.

Sources were collected from the Internet whenever possible, and this extended the range of sources considerably. Care was taken to check authorship and versions, and to retain copies of web pages, on paper and/or hard disk. The WikiLeaks material appeared while I was in the midst of assembling the data. This required separate assessments of reliability and bias as secondary source material. Discussions with colleagues and (retired) diplomats supported my assessments. The WikiLeaks material provided additional insights on dimensions of other data.
Much attention is paid to formal and informal institutions in this thesis. Informal institutions are necessarily more difficult to study. Throughout the process of data collection and analysis, I have tried to remain alert to indications of informal institutions, informal enforcement and interaction occurring informally alongside the formal institutional framework. Such indications have elicited further investigation and inquiry as far as possible. Sources used in each of the cases are discussed in Appendix 2.
3. ELECTRICITY: RAO UES/INTER RAO

This chapter discusses the Russian electricity monopoly (RAO UES 1992–2008) and its subsidiary – and in some respects successor – Inter RAO (1997–), along with the relations of both to the Russian state. Throughout the chapter, I will show how the Russian state and RAO UES/Inter RAO participated in the development of foreign policy and foreign electricity operations and relate this to their interaction in overall institutional development. The Soviet legacy, an integrated electricity sector, acted first as a channel for sharing Russian rents through a subsidised power supply system, where electricity was often not paid for. Changing state–company interaction drove institutional development at home, and boosted state capacity. As state capacity increased, RAO UES had better opportunities to expand foreign operations and its Inter RAO subsidiary. Inter RAO could in turn be used as a foreign policy tool. This chapter, like the ones that follow, is structured roughly chronologically, following state–company relations from 1992 to 2012. It is subdivided according to the milestones of Russian history in the period (p.26). For each period, domestic state–company interaction is discussed first, followed by interaction abroad.

3.1 The break-up of the Soviet Union and Soviet legacies

In the Soviet period, the power sector, excluding nuclear energy, was organised under the Ministry of Electric Power. UES was the only distributor (Patel, 2013, p.45). A Russian Fuel and Electricity Ministry was created in February 1991, while Minatom remained responsible for nuclear power generation. When the Soviet Ministry of Electric Power was abolished in November 1991, the Russian ministry took its place, along with its responsibilities for UES. As this happened, a reformer without industrial experience,
Vladimir Lopukhin, was appointed Fuel and Energy Minister (Gustafson, 2012, p.63-64). As the state hierarchy weakened, established institutions failed to constrain actors lower down in the hierarchy and momentum passed from the Ministry to a subordinate committee appointed to manage UES. This committee was headed by a former Soviet, now Russian, deputy minister, Anatolii Dyakov, an experienced insider in the power industry who had started as an electrical fitter. He was well positioned to recognise the UES, the grid, as the central infrastructural legacy of the Soviet Union. Reliable electricity supply would enable the industry to retain the status quo and maintain the institutional framework of interaction with any government.

During 1992, UES re-emerged as a holding company, in three stages. In July, a presidential decree established privatisation procedures (Decree No 721, 1992), though electricity was made exempt from this process along with the rest of the fuel and energy complex in August (Decree No 922, 1992). Decree No 923 divided the entire power production and distribution system into shareholding companies (1992). In November, a final decree established the holding company RAO UES, supposed to include the entire electricity sector (Decree No 1334, 1992). At least 50 percent of RAO UES was to remain in state hands; the rest would be made available to private owners, including electricity industry employees, in stages during 1993–5. Dyakov became head of RAO UES in December and soon after was made Board Chairman (Museum for the History of the Northwest Power Industry, 2014). An opportunity arose for him with the collapse of the old institutional framework to maximise sector autonomy, but also to ensure as far as possible the survival, stability and integrity of UES itself.
3.2 Keeping afloat and muddling through

RAO UES did not consolidate as planned. The breakdown of the central planning system sparked a process of regional autonomy. By 1992, this process was well underway (Engoian, 2006, p.3241). In the weeks between the decrees of July and August 1992, several regional power companies fell partially or wholly into regional authority control; in some places this was to reward loyal governors (Berger and Proskurnina, 2008, p.69-71). While the government reformers had planned a consolidation from below, the need to maintain a ruling coalition with regional support was an informal, but strong counterweight to any deliberated policy. At the time, RAO UES controlled 72 percent of Russian electricity production and 96 percent of the power transmission network (RAO UES, 2005b; Patel, 2013, p.45). However, RAO UES held only minority stakes in nine of the regional subsidiaries, some of which were crucial to the general power supply (Tompson, 2004, p.5).

Thus the regions came to hold considerable power in the holding company RAO UES. The process of regional autonomy progressed apace throughout the 1990s, contributing to the fragmentation of the public sector and of RAO UES (Gaddy and Ickes, 2002, p.185-187). Power companies and power industry service companies fell into creditors’ hands for defaulting on real debts, or debts imagined by creative local managements (Berger and Proskurnina, 2008, p.68-70; 74-79). Yeltsin continued to hand out stakes in regional power companies to governors who supported his ruling coalition. The institutional framework gave local directors more power than the RAO UES top management, which depended on the goodwill of subsidiary managements. Decentralised decision-making permeated the ownership structure. Thirty percent of the government’s votes were exercised by the regions (Decree No 1334, 1992). Dividends on state-held shares were to be reinvested in
RAO UES (Decree No 1334, 1992), creating a disincentive for transparency. The initial priority of privatisation without basic restructuring maintained regional autonomy and impeded further reform (Gray, 1995, p.41-42), as vested interests multiplied (Tompson, 2004, p.4-5). By late 1994, only 25 percent of RAO UES was in non-state hands (Gray, 1995, p.39); from 1996, the state steadily reduced its stake (Table 3.3).

The power industry continued in a semi-reformed state. The government controlled tariffs: they grew at only half the rate of industrial producer prices and lagged behind fuel prices (IEA, 2003, p.22; Tompson, 2004, p.7). The result was a negative spiral of under-investment in power infrastructure, falling power supply reliability, and fixed capital depletion. By the mid-1990s, non-payments and arrears were the rule rather than the exception in regional power companies, which regularly threatened to declare themselves bankrupt (Nevezhin, 1996).

By the mid-1990s, RAO UES had acquired a stabilising role in the Russian economy, while also easing much of the pressure to speed up the process of structural change. The economy was plagued by debts and non-payments due to the absence of real budget constraints. The problem became acute after the government made it illegal to turn off power supply to state-owned enterprises in October 1995 (Murtazaev, 1995). RAO UES’s subsidiaries became the largest creditors in their respective regional economies. The regional electricity sector was plunged into debt, most of it owed to Gazprom and the coal companies, which were therefore forced to share their rents with the electricity industry. By the second half of 1996, electricity consumers owed the industry 71 trillion rubles in unpaid tariffs, while industry employees had 1.5 trillion rubles in outstanding pay (Ekonomika i zhizn', 1996). By that year’s end, enterprises in federal ownership owed the
electricity sector 8.7 trillion rubles (Nevezhin, 1996), largely offset against regional tax claims on the power companies. In comparison, RAO UES, the holding company, had a turnover of 8.9 billion rubles that year (RAO UES, 1997). Tariff collection rates fell below 85 percent, only 15–20 percent of which was paid in cash (RAO UES, 2005b, Berger and Proskurnina, 2008). The rest was barter involving all kinds of goods, and other forms of nonmonetary payments, including promissory notes (Gaddy and Ickes, 2002, p.25).

Barter trade and promissory exchanges created ample opportunities for enrichment through a flourishing intermediary sector (Bekker, 1997; Nevezhin, 1997), which channelled rents to regional and federal elites. Dyakov himself established a company, RAO EEK (Edinaya energeticheskaya korporatsiya), which did very well as an intermediary in the promissory note trade (Ivanov, 1998; Rossiiskaya gazeta, 1999; Berger and Proskurnina, 2008, p.67). Unchecked by central state control, the holding company grew at the expense of its subsidiaries, which in turn lost much of their value. The holding company made a profit and paid dividends (RAO UES, 1997), while the regional power companies had to look to the state budget for investments (Babich, 1997).

At the same time, the semi-reformed electricity system was useful to the state. By making it possible for unprofitable enterprises to survive, RAO UES stabilised many regions. Central state organisations, however, failed to conduct audits, let alone take an interest in the development of RAO UES (Babich, 1997). The state seemed impotent and RAO UES inaccessible. But people and factories continued as before, regardless of failing tariff payments. RAO UES buoyed the economy by softening budget constraints for non-profitable companies. As long as power companies failed to pay for their own gas, RAO UES provided another channel for rents from Gazprom’s export to Europe. This reduced
human suffering and preserved a modicum of political stability, but it also reduced the pressure to accelerate structural reform. RAO UES also channelled rents from barter trade. Regional economies depended on the electricity subsidy, and regional authorities depended on the rent streams. RAO UES’s top management joined other monopolies, especially Gazprom, to keep reform off the agenda (Bekker, 1997). Unlike Gazprom, RAO UES had no access to foreign markets that could shield it completely from the hazards of playing the economic stabiliser role and distributing rents through subsidies to consumers. This weakened the company considerably as a result.

3.3 The trade collapse

The Soviet Union’s power grids were not designed to operate in isolation. Systematic under- and overcapacity criss-crossed republican boundaries (as reflected in Table 1.2) (Anex, 2002, p.401). The trade in electricity in the post-Soviet region fell significantly after 1991. Between 1991 and 1997, Russia’s import of electricity, all from the post-Soviet region, decreased from 35 to 7 TWh, or by 80 percent (OECD/IEA, 2005, p.24). Russian exports were halved between 1991 and 2000 (exports from 1997 are found in Table 3.4) (OECD/IEA, 2005, p.24). The trade decline reflected reduced consumption. Overall utilisation of installed power supply capacity in the post-Soviet region fell from 61 percent in 1990 to 50 percent in 1994 (Gray, 1995, p.21).

RAO UES continued to export power to the post-Soviet region. In the mind of the senior management, it was a technical imperative (Kommersant, 1994). Debts accumulated and the payment rates were low. Belarus, Kazakhstan, Ukraine and Georgia by 1998 owed RAO UES 647 million US$ (Table 3.7). In volume, export to places outside the post-Soviet region stood at only 10 percent of the volume exported to post-Soviet states, though
it generated 123 percent of the cash revenue (RAO UES, 1999). Barter payment and non-payments were the general rule inside the post-Soviet region (Table 3.6). Negotiating debt-for-equity swaps to recover debts was complicated, particularly with Kazakhstan (Stalker, 1995b).

Non-payments prompted RAO UES to cut off non-Russian grids in the late 1990s. The Ukrainian grid was cut off in 1999, and supply to Georgia reduced (Kozyrev and Gavrish, 2001). Even Kazakhstan, whose northern regions were completely integrated with Russia, experienced reduced supply (Klasson, 2000; RAO UES, 2000). In the post-Soviet region, people traditionally expected a stable, abundant and accessible supply of power, almost for free. By 1998, most people in the region had got used to frequent, hour-long power cuts, breakdowns and electricity rationing.

3.4 Reform and financial crisis

Yeltsin’s second presidential period (1996–99) yet again prioritised reform of the natural monopolies. RAO UES, Gazprom, the railways and the post and telecommunications systems were targeted. Reformers in the new government, led by Fuel and Energy Minister Boris Nemtsov, drafted the decree, which was detailed on RAO UES (Decree No 426, 1997; Gotova, 1997; Berger and Proskurnina, 2008, p.43-44). Reform, it was said, would attract investment. By 2003, the reform would have created a wholesale electricity market, a spot market, a market operator and a stable regulatory environment, several competing, fuel-based generating companies and one state-owned hydropower-based generating company (Kurronen, 2006; Skyner, 2010; Solanko, 2011). Payment discipline would be enforced, cross-subsidies abolished, the tariff system restructured (Decree No 426, 1997). The tasks were monumental. RAO UES is the largest electricity monopoly that has been
unbundled anywhere, though the reform was modelled on similar reforms in Brazil, Mexico and South Africa.

Dyakov was vehemently opposed to reform, but he had failed to understand the changing political context of Yeltsin’s second presidential period (Nevezhin, 1996; Bekker, 1997; Gotova, 1997; Berger and Proskurnina, 2008, p.58-59). As the new government reinterpreted and enforced RAO UES guidelines, Dyakov was told in early 1997 that his positions as top manager and Board Chairman were incompatible (Bekker, 1997). Boris Brevnov, a young manager and former colleague of Nemtsov’s, was hired in from outside the electricity sector, and appointed in March 1997. He was unprepared for the job of heading RAO UES, let alone reforming it (Berger and Proskurnina, 2008, p.29-35). He began by ordering a comprehensive audit of RAO UES, a move boycotted by the managers (Wengle, 2012, p.447). This made it difficult to proceed with the reform. When Anatolii Chubais was given Brevnov’s job in April 1998, his predecessor had already fallen out of favour with his erstwhile patrons. Dyakov, on his side, had marginalised himself with his resistance to reform and handling of Brevnov, which included an exchange of compromising material between them (Ivanov, 1998). Chubais could therefore embark on the reform with a clean slate.

Chubais had experience. He was deputy prime minister from 1992 to 1996 and one of Russia’s leading privatisation and reform advocates. He had co-authored the 1990 market reform programme, headed the State Property Committee (1991–1994), the Presidential Administration (1996–1997), served as Minister of Finance in 1997 and headed Yeltsin’s electoral campaign in 1996. When he came to RAO UES in 1998 to reform it, it was
apparently at his own request; it was, in his opinion, a key sector (Berger and Proskurnina, 2008, p.17-18; 23-24).

By August 1998, when Russia defaulted on its debts and the financial crisis unfolded, the ground was well prepared for reform. Chubais and his team had compiled a reform manual (Berger and Proskurnina, 2008, p.36-39), and they were determined to see it pushed through. A presidential decree and a compromise with Gazprom enabled them to launch a campaign against non-payers, in which regional companies could, and did, turn off electricity to non-paying power users (Decree No 889, 1998). Collection rates and the share of barter improved slightly in the last months of 1998, reducing informal rent streams somewhat (RAO UES, 1999). Throughout the entire organisation, old industry hands were being replaced by younger managers (Wengle, 2012, p.442).

The RAO UES reform was unusual at the time in being pushed through by a management that gradually took over control of the industry. This was well understood by Chubais and his team (Gaidar and Chubais, 2008, p.134). After 2000, attracting investment to the sector was no longer controversial. Power demand was projected to rise rapidly during the post-crisis recovery. The crisis had made export beyond the post-Soviet region competitive. The industry would struggle to meet this demand. The sheer scale of the reform caused repeated delays. The regions lined up against a reform designed to disempower them (Knyazev and Reznik, 2000; Berger and Proskurnina, 2008). Many regional power company managers were also unfavourably disposed to working in radically different conditions. The final period of reform was pushed forward from 2003 to 2004, later to 2007–2008. When the reform legislation was passed by the Duma in February 2003, it was

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12 In the event, the Russian electricity market grew by 19% annually in the period 2004–2008 (Datamonitor, 2009).
a political victory for Chubais and his team, and for the government (Federal Law No 35, 2003; Federal Law No 36, 2003). With the support of the Duma and state organisations, especially the Presidential Administration led by Aleksandr Voloshin (1999–2003), Chubais and his team enjoyed wide-ranging powers in how the reform was implemented, leading one observer to comment that RAO UES ‘substitut[ed] itself for the state on the issue of reform’ for as long as a decade (Engoian, 2006, p.3241). One interpretation would be that state organisations were not sufficiently supportive of reform to secure its irreversible completion. But, more persuasively, by farming out reform to the RAO UES management, the state indicated the seriousness of its commitment. The RAO UES reform planners seem to have learnt from other electricity reforms the importance of ‘demonstrat[ing] the viability and robustness of the new regulation’, especially in case of changes in government (Newbery, 1994, p.311). Arguably, RAO UES did not so much substitute itself for the state as manage reform in a way that emphasised the state’s commitment to implementing it. The new institutional framework in turn obliged the state to enforce institutions, or face great costs in the event of failing to do so (Gaidar and Chubais, 2008, p.138-139).

3.5 A new approach to the post-Soviet region

Chubais brought a new approach also to the post-Soviet region. RAO UES prioritised debt restructuring in 1998, and in 1999 ceased to accept barter on current payments (RAO UES, 2000). Where old debts could not be paid in cash, exchanging debt for equity was the preferred strategy (RAO UES, 1999). Ukraine and non-paying customers in Kazakhstan were disconnected. Hard budget constraints were extended to the post-Soviet region as well.

13 An overview of reform legislation is found at http://www.fsk-ees.ru/about/reform/
In 1998, RAO UES sold about two-thirds of Russia’s electricity exports (RAO UES, 1999) and established a subsidiary, Inter RAO, to effectuate cross-border trade (Gubenko, 2002). Inter RAO started up in 2000, first recovering Belarusian electricity debts and then facilitating transmission to Kaliningrad. Performing what was essentially a barter operation, it cleared electricity debts country by country. In the cases of Georgia and Kazakhstan, Inter RAO used unannounced blackouts as a form of pressure (Berger and Proskurnina, 2008, p.211-212; 216).

Andrei Rappoport, a trusted member of RAO UES’s management, headed Inter RAO’s Board of Directors (Medvedeva, 2007a). The Board had five members (until 2007), two of which, from 2004, represented Rosenergoatom, now a minority owner. The Board was largely a formality, conducting most of its business through correspondence (Kommersant, 2008b). Important decisions were made by the RAO UES board, rather than Inter RAO’s. The addition of a minority owner, Rosenergoatom, does not seem to have altered this situation significantly. If anything, it led to even closer supervision from RAO UES. The formal institutional design was unaffected, with the composition of the Board the sole exception. Working with Chubais, Rappoport authored Inter RAO’s development and managed the company’s political support and media profile, effectively sidelining the company’s young manager, Evgenii Dod (2000–2009).

De jure, there was no monopoly on cross-border electricity trade. The legal stipulation was that RAO UES organised and conducted cross-border electricity trade (Melkumyan, 2002). From 2001 Inter RAO was the export-import operator in a role delegated from RAO UES. The function could be performed on behalf of third parties, i.e. other exporters (Zvyagin, 2004, p.52). Starting in 2000, RAO UES began to exclude other companies from cross-
border trade. In 2001, Rosenergoatom planned exports to both Georgia and Ukraine (Gorelov, 2001b; Rybal’chenko and Razumovskii, 2001). Instead of agreeing to effectuate trade for Rosenergoatom, RAO UES offered it a 15 percent stake in Inter RAO (Maksimov, 2001; Melkumyan, 2002). Rosenergoatom refused to accept less than 50 (Maksimov, 2001; Melkumyan, 2002). The export-import conflict went to the Anti-Monopoly Ministry for arbitration. Rosenergoatom settled for a 40 percent share of Inter RAO in mid-2002, and sought a corresponding share in electricity exports (Gorelov, 2006). It was not successful, apparently due to resistance from within RAO UES (Siluyanova, 2003b).

3.6 The new coalition

Chubais was an old acquaintance of Putin’s from the St. Petersburg City Administration, and he headed Putin’s first election campaign in 2000. He was also close to Aleksei Kudrin, finance minister 2000–2011. Chubais combined personal political clout and network with formal mechanisms to drive reform forward. He was consistently rated as one of Russia’s three or four most influential businessmen (e.g. in Turanov, 2006).

When Putin became president in 2000, he distanced himself from Chubais as he did from many others in an attempt to hold the so-called oligarchs at arm’s length. All the same, relations between Chubais and Putin remained relatively close (Smirnov, K., 2000), and Chubais was not worried about his own position. When asked whether his loyalty to Putin protected him from arrest, he replied ‘Unlike the oligarchs … I built this power’ (‘V otlichie ot oligarkhov … ya stroil etu vlast’’) (Tregubova, 2000). He identified with public service and the pursuit of state interests, rather than those of the business community (Berger and Proskurnina, 2008, p.138).
Right up until 2008, Chubais and Putin are known to have met alone at least twice a year. Meetings with third parties, or in preparation for group meetings, often included an element of mediation. Putin on these occasions had to conciliate opposing parties, conciliation being one of the most important informal institutions of the presidency. This was especially necessary in the early 2000s when Chubais and Rem Vyakhirev or Aleksei Miller of Gazprom clashed on gas prices and deliveries to electricity production, and between Chubais and Putin’s own senior economic advisor, Andrei Illarionov, over the electricity reform. When Chubais and Putin met on their own, they would also discuss wider political concerns (Smirnov, K., 2002b; Kornysheva, 2003).

3.7 Expansion in the post-Soviet region: Building a ‘liberal empire’

In 2003, RAO UES and Inter RAO embarked on a programme of expansion in the post-Soviet electricity sector (Table 3.2). The timing was decided by events, but underpinned by a coherent mission statement. At the heart of the expansion project lay Chubais’s concept of ‘liberal empire’. In autumn 2003, just as RAO UES/Inter RAO completed this first wave of expansion, Chubais advocated a policy of ‘liberal empire’ in the post-Soviet region (Chubais, 2003; Lenta.ru, 2003). This, in his eyes, was Russia’s mission in the 21st century. The liberal empire would be based on economic power, used for the benefit of all the states in the region. He emphasised the need to support Russian culture in the post-Soviet region, along with freedom and human rights. Crucially, he gave the state the role of supporting Russian businesses abroad (Chubais, 2003). His proposals also seemed to justify RAO UES’s foreign operations (Libman and Kheifets, 2007, p.15).
The RAO UES/Inter RAO expansion programme had three widely articulated goals: to profit financially from electricity trade; to stabilise power supplies\(^\text{14}\); and export power to countries outside the post-Soviet region. The potential markets were Romania and Bulgaria, Turkey and Afghanistan. Exports from Azerbaijan to Iran, and from Kyrgyzstan to China (Gorelov, 2004; Blagov, 2006a), were also a possibility. A fourth aim, to enable integration with grids outside the region, was frequently mentioned. While the latter was one of Chubais’s pet projects, it was ultimately rejected after the 2008 financial crisis. Reuniting the post-Soviet electricity grids was an essential first step (Table 3.1). Inter RAO could then expand operations in the region (Startseva, 2003). Resynchronisation\(^\text{15}\) and trade improved power supplies, and investing in dilapidated assets helped further. To turn a profit, RAO UES used its understanding of the business culture to make the end customer pay (Crane et al., 2005, p.424-425).

Making use of investment opportunities where Western companies had failed was one of Inter RAO’s two routes to expansion. The other was debt-for-equity deals that recovered electricity debts from the 1990s. Inter RAO leaned on the creditworthiness of RAO UES to acquire equity for a low price, making use of short-term loans without collateral (Bekker, 2003).

3.7.1 Belarus

Building on its good relations with Belarus, in 2002–3 Inter RAO worked with the Belarusian company Belenergo on exports to Poland (Grib, 2003). In 2002, RAO UES

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\(^{14}\) The larger the electricity grid, the more stable it is, provided it is well maintained and technologically up to date. Multiple sources of supply, from different fuel types, usually makes economic sense. Hours of peak demand vary across a large grid, facilitating more rational utilisation.

\(^{15}\) When electricity grids operate synchronously, their speeds and frequency match. After disconnection, they have to be brought back to exact synchronisation to exchange power.
established a trading company, Tsentr realizatsii energii, to export power to Russia and Belarus (Inter RAO Lietuva, 2014). In 2003 Inter RAO was put in charge of electricity exports to Belarus in place of RAO UES, and the price increased by 28 percent for 2004 (Mazaeva, 2004), in response, apparently, to government pressure on RAO UES (Gorelov, 2008b). Belarus could substitute domestic electricity for imported Russian power, but would incur losses (Grib, 2004). It preferred instead to buy expensive Ukrainian electricity, and later Lithuanian electricity. In Lithuania, however, Inter RAO was the only exporter with spare capacity, and Belarus was therefore forced to accept Inter RAO’s terms (Grib, 2004; Mazaeva, 2004; Naumova and Grivach, 2004). Belarus subsequently reduced its overall import of power (Gorelov, 2008b). When the issue came up again in 2008, Inter RAO gave Belarus a more flexible contract (Gorelov, 2008b).

3.7.2 Ukraine

Re-synchronisation of the Russian and Ukrainian electricity grids proved problematic, even though Ukraine repaid its debts (Vorotynskii, 2000). It was eventually completed in August 2001 (Klasson, 2001). The synchronisation agreement did not regulate electricity trade, which would be negotiated afterwards (Stepanenko and Gorelov, 2001). RAO UES aimed to export some power to Ukraine and to work with Ukraine on exports to Moldova. But Ukraine linked Russian electricity export to Moldova to Russia’s ratification of the EU Energy Charter Treaty, terms it would be impossible for Russia to fulfil (Stepanenko, 2003). Ukraine was not eager to compete with Russia for the Moldovan market, where the South Ukraine NPP (Nuclear Power Plant) was directing its surplus (Grishkovets and Dar’in, 2006; Grishkovets and Gavrish, 2006).
Expansion through equity was a more promising strategy. In November 2003, RAO UES participated in a Russian–Ukrainian consortium that came close to acquiring stakes in ten (of 27) regional power distribution companies undergoing privatisation. The timing was good and the price quite low, according to one RAO UES board member, Seppo Remes. Prime Minister Viktor Yanukovich and President Leonid Kuchma were positive to RAO UES participation, and the consortium included Kuchma’s son in law, Viktor Pinchuk (Egorova et al., 2003; Siluyanova, 2004a). However, the consortium met with resistance from Ukrainian competitors (Siluyanova, 2004c) and also from Verkhovna Rada, Ukraine’s parliament, due to RAO UES’s participation. The privatisation process was delayed in December 2003, and halted in January 2004 (Butrin et al., 2003; Egorova and Gavrish, 2003). Dmitrii Medvedev, now head of the Russian presidential administration, travelled to Kyiv to support RAO UES and other Russian energy companies, like Gazprom, but was unable to influence the process (Zaets, 2003). One of the Russian businessmen in the consortium, Konstantin Grigorishin, had his property in Ukraine confiscated in March 2004 (Butrin and Rudenko, 2004; Siluyanova, 2004c).

In the event, a presidential decree established a public company, EKU, to own the regional companies (Mishneva et al., 2004). Chubais is alleged to have suggested this solution (Ivzhenko, 2005). When a possible privatisation of EKU came up in 2005, after the Orange Revolution, RAO UES/Inter RAO was seen as a likely buyer, in light of Chubais’s support for Yushchenko during the Orange Revolution (Ivzhenko, 2005). But RAO UES and Inter RAO decided not to invest in equity in Ukraine, possibly due to the difficult political environment.
3.7.3 Moldova

The Moldova GRES plant dominated Moldova’s electricity generation. The plant is located in the secessionist republic of Transnistria and controlled by its authorities in Tiraspol. Up to 2000, Moldova’s government in Chisinau was the formal owner. By 2000, Moldova GRES was operating at reduced capacity and needed modernisation and repairs estimated at 120 million US$ (Prikhodko, 2000).

Inter RAO first tried to acquire control of the plant in 2000 in a joint effort with Moldova’s Moldelektrika and a Transnistrian company, Moldavskaya GRES (Prikhodko, 2000). They failed. In 2003, Tiraspol allowed privatisation in Transnistria, apparently to prevent control of the local economy falling into the hands of the government in Chisinau. Several large enterprises came under Russian control, directly or indirectly (Solov'ev, V., 2006). Gazprom and Inter RAO submitted a joint bid for Moldova GRES, proposing a debt-for-equity deal (Gudim et al., 2003, p.15). Gazprom would write off Moldova’s more than 600 million US$ gas debts, mostly incurred by Transnistria, in return for Russian investments in Moldova GRES. Inter RAO would manage the plant (Siluyanova, 2004a). However, an unknown Belgian company, St. Guidon Invest, won the tender in late 2003, paying 29 million US$ for the plant and offering 161 million in investments (Gamova, 2004). Clearly a front company, St. Guidon was rumoured to be connected to the de facto government in Tiraspol (Suvorova, 2004; cf. Levinskii, 2005), or possibly backed by Russian money (Gamova, 2004; Burlak, 2005). Chisinau and Tiraspol’s tense relations complicated the situation further (Siluyanova, 2004a), especially as Chisinau had recently refused to sign a Russian conflict resolution proposal for Transnistria, the Kozak plan.
Unlike Gazprom, Inter RAO remained interested in Moldova GRES (Bruce and Yafimava, 2009, p.174), especially because it made it possible to export electricity to Romania. RAO Nordic acquired 51 percent of Moldova GRES in March 2005. In August, Inter RAO acquired the remaining 49 percent by buying St. Guidon Invest. The estimated price for both deals was 85–100 million US$, giving both the Transnistrian authorities and St. Guidon’s owners a good share in the proceeds (Vin'kov, 2005; Grishkovets, 2008a). The Moldovan government was not pleased by this *fait accompli*. A legal transfer required its prior approval. In addition, Inter RAO had been advised on the deal by Valerii Pasat, a former Moldovan official who had served as defence minister, head of special services and ambassador to Moscow (Gamova, 2007). Reportedly, Putin had recommended Pasat to Chubais (Kolesnikov, 2008, p.64). Following the deal, Pasat was arrested on arrival in Moldova and convicted in January 2006 (Solov'ev and Popov, 2007). Chubais followed up with a campaign against Voronin, targeting Moldova’s relations with EU governments (RFE/RL, 2006f; Kolesnikov, 2008, p.66-68). Whether a tool of the Russian government or not, Chubais assumed a foreign policy role.

Inter RAO and the Moldovan government were now in conflict on all fronts. In November 2005, Inter RAO cut electricity supplies from Moldova GRES to right-bank Moldova after Moldova refused to accept a price increase (Kiselev and Panfilova, 2005). Moldova imported electricity from Ukraine (Embassy Chisinau, 2007). The Moldovan government outlawed the transport of electricity from Moldova GRES to Romania, on account of the dilapidated state of the Moldovan grid (Gorelov, 2007a). The prospect of making a profit from Moldova GRES disappeared. RAO Nordic then sold 49 percent of Moldova GRES to an unknown offshore company, FREECOM, for 38 million US$ (Grishkovets, 2008a). In early 2006, Chisinau kept Inter RAO from participating in privatisation tenders for sections
of the Moldovan grid (Gamova and Krashakov, 2006; RFE/RL, 2006f), offering Gazprom instead a controlling stake in the national power grid in exchange for lower gas prices until the end of 2009 (Reznik and Egorova, 2006b).

Gazprom declined non-gas equity (Grib and Dar’in, 2006). The pressure worked, and in return for a discounted gas price from April to and including July 2006, the Moldovan government withdrew its demand for a review of the privatisation deals in Transnistria (Reznik and Egorova, 2006b; Solov’ev, V., 2006), and Inter RAO retained its 51 percent share in Moldova GRES.

In July 2007, the presidents of Russia and Moldova agreed on a compromise in the electricity conflict. It included cooperation on electricity transit to Romania, possible future supplies to right-bank Moldova (Embassy Chisinau, 2007) and Pasat’s release from prison (Gamova, 2007).

3.7.4 Georgia

When Inter RAO in mid-2003 acquired power generation and distribution assets in Georgia and Armenia, it was a major breakthrough for the company in the South Caucasus. The lack of control with generation and transmission in Georgia had in 2002 hampered electricity exports to Turkey (Klasson, 2003). After privatisation in 1998, much of Georgia’s electricity generation and distribution was owned by the US-based AES Corporation (Gularidze, 2003a; 2003b; Siluyanova, 2004a). Non-payments, generally around 50-60 percent across the CIS (Fankhauser and Tepic, 2007, p.1042), were a serious problem in Georgia.

In spring 2003, AES pulled out. Two electricity plants, Tbilisi’s distribution grid, and 50 percent of the Turkish energy trading company Transenerji, came up for sale (Gotova,
The subsequent deal with Inter RAO became known to the Georgian public in July 2003, four months before the general elections (Sikamova and Efimov, 2003; Siluyanova, 2003a). The Georgian government and President Eduard Shevardnadze claimed not to have been informed of the deal beforehand (Bekker, 2003). This seems unlikely in the light of AES’s longstanding problems. Chubais and Rappoport justified the investment, and downplayed the commercial significance of the Turkish market (Bekker, 2003). The opposition made a point of the deal, criticising the government and forcing the resignation of Energy Minister Davit Mirtskhulava (Vignanskii, 2003). After the November Rose Revolution, Mirtskhulava was arrested and convicted (Civil.ge, 2004). When Ilya Kutidze, RAO UES’s representative in Georgia, was interrogated as well, Rappoport pressured the Georgian government to stop interrogations by instituting a sudden blackout (Berger and Proskurnina, 2008, p.213-214).

Inter RAO paid 25 million US$ for the Georgian electricity assets (Siluyanova, 2004a), and acquired accumulated non-payments as outstanding debt. AES had recorded a 129 million US$ net loss in the second quarter of 2003 (Civil.ge, 2003c). The Georgian government now committed to a debt payment schedule (Bekker, 2003). Following the Rose Revolution, the new government and RAO UES developed normal working relations, reflecting the extent of Georgia’s dependence on Inter RAO for electricity.

Inter RAO and AES concluded the deal through subsidiaries based abroad and Inter RAO had used RAO Nordic, which operated in the Nordic electricity market. There was therefore no obligation to inform Inter RAO’s Board ahead of the deal. The minority shareholder, Rosenergoatom, and RAO UES appear to have disagreed on the need for expansion and how it should be carried out (Gotova, 2003). Using RAO Nordic as
investment vehicle also allowed money earned abroad to stay abroad, avoiding Russian taxation.

Chubais later complained of a lack of support from the Russian embassy in Tbilisi (Berger and Proskurnina, 2008, p.213). Information on its expansion had very likely passed from Chubais to Putin in advance, to secure presidential approval (Gotova, 2003; Kornysheva, 2003; Siluyanova, 2003a). This was necessary for any Russian state-owned company branching out into a neighbouring state. It was more important to use informal mechanisms of participation in foreign operations, going straight to the president, than to ensure formal institutional oversight within RAO UES and the hierarchy of state organisations.

3.7.5 Armenia


In early 2003, Russia and Armenia reached a deal, leading to equity transfers beginning in July. In the first swap, Inter RAO assumed control of the Hrazdan\textsuperscript{16} hydropower plants (Hakobyan, 2003; Kravchenko, 2003a). In the second swap, Metsamor’s management rights were transferred to Inter RAO on a five-year renewable basis. TVEL, Metsamor’s creditor, could not own equity outside Russia (Hakobyan, 2003; Kravchenko, 2003a).

\textsuperscript{16} Razdan in Russian.
According to RAO UES’s management, Inter RAO would not have acquired control of Metsamor without having Rosenergoatom as a minority shareholder (Egorova, 2006a). The arrangement was extended for five more years in 2008 (WNA, 2010) and ended in 2012 (ARKA News Agency, 2012b; 2012a).

RAO UES had been expected to win the privatization tender for the Armenian power grid in 2002, but it went to Midland Resources Holding, a British company run by two Russian expats (Urikhanyan, 2001). In early 2005, Inter RAO acquired the grid all the same, paying Midland 73 million US$ for a 99-year lease (Movsesyan, 2005; Zhelenin, 2005). Ideas of expanding the electricity and gas trade with Iran surfaced regularly in Armenia. Inter RAO’s acquisitions gave Russia a lever in this relationship. By 2005, Inter RAO controlled around 80 percent of Armenia’s electricity sector (Siluyanova, 2005b). The deal between Inter RAO and Midland attracted criticism for having been carried out without the Armenian government’s approval (Gordienko and Orlova, 2005). The Armenian Commission for Regulation of Public Services demanded clarifications from the National Grid Company about Inter RAO’s lease, but the matter was later dropped (Gordienko and Orlova, 2005). Armenia was politically close to Russia and attracted few alternative investors.

3.7.6 Azerbaijan, Kazakhstan and Tajikistan

In Azerbaijan, Inter RAO had tried several times to acquire a stake in transmission on the Absheron peninsula, which included Baku (cf. Mirkadyrov and Gordienko, 2004; Kjærnet, 2007; Sabonis-Helf, 2007b). In 2005, Russia and Azerbaijan started trading electricity (Tables 3.4 and 3.5). Within the framework of the North-South transport corridor, Russia, Azerbaijan and Iran synchronised electricity grids and expanded cross-border lines from
2006. By 2009, plans were in place to expand trilateral cooperation between Russia, Azerbaijan and Iran (Inter RAO, 2010b, p.12).

RAO UES began negotiating with Kazakhstan in 1995 on a restructuring package for Kazakhstan’s electricity debt to RAO UES (Stalker, 1995b), which stood at 419 million US$ by the end of 1998 (RAO UES, 1999). In January 2000, the prime ministers agreed on a debt-for-equity swap in principle (Pulina, 2000). Agreeing on content was more difficult. A detailed deal was reached in September 2004, and the swap took place in 2005 (Gleason, 2004). Industry and Energy Minister Viktor Khristenko and President Putin both played an important role in finalising the swap to the benefit of RAO UES (Berger and Proskurnina, 2008, p.215-217). Under the final deal, Kazakhstan and RAO UES formed a 50/50 joint venture (JV) for ownership of the Ekibastuz-2 coal-fired power plant, which was already exporting electricity to Russia (Gleason, 2004). The Russian-controlled company Access Industries was trusted with the management of Kazakhstan’s share (Aleksandrov and Cherkesova, 2007). In 2007, the Kazakhstani corporation for management of government property, Samruk-Kazyna, challenged the deal with Access Industries and a number of other deals (Bol'shakov and Ishmukhammetov, 2007). Inter RAO’s share of Ekibastuz-2 seemed to be in danger of takeover, though this did not happen (Aleksandrov and Cherkesova, 2007).

In 2003, negotiations started on a debt-for-equity swap involving Tajikistan’s debts to Russia (Inter RAO, 2008b). The final package strengthened Russia’s military and strategic presence in Tajikistan, but also included two billion US$ of Russian investments in Tajikistan’s hydropower sector (Panfilova, 2009a). Sangtuda-1, a hydropower plant project
from the Soviet period, was included in the deal, possibly a result of Chubais’s and Rappoport’s respective efforts (Gorelov, 2008a).

By July 2004, RAO UES/Inter RAO was set to receive a 51 percent share of Sangtuda-1 to settle 50 million US$ of Tajikistan’s debt, while also undertaking a 50 million US$ investment obligation (Berger and Proskurnina, 2008, p.226). From August, Tajikistan and Kyrgyzstan exported electricity by swaps to Kazakhstan and Russia in anticipation of a final agreement. In September, however, Tajikistan’s President Imomali Rakhmon declared that Iran was joining Sangtuda-1 with 250 million US$, thereby jeopardising the Russian–Tajik deal. The deal was settled in a last-minute call between Rakhmon and Putin (Berger and Proskurnina, 2008, p.226). In the final deal, the Russian side undertook to invest 200 million US$ at Sangtuda-1, while the 50 million US$ debt settlement was retained (Glumskov and Grib, 2004). The Russian share of Sangtuda-1 was set at 75 percent (Litvinov, 2004). The Russian government guaranteed Inter RAO’s investments in the project, emphasising the state’s involvement in the deal (Libman and Kheifets, 2007, p.22). Construction on Sangtuda-1 recommenced in 2005, and the first part of the power plant opened in January 2008 (Berger and Proskurnina, 2008, p.218-226).

3.8 Implementing the ‘liberal empire’

Chubais and Rappoport supervised Inter RAO less after 2005, but both remained in close contact with the business, particularly Rappoport. He managed some aspects of Inter RAO’s operations in direct subordination to Chubais (Berger and Proskurnina, 2008, p.211-217; 218-222). Electricity exports and import deals remained his responsibility (RAO UES, 2003; Grib et al., 2006). The formal institutional framework for cross-border trade was underdeveloped and tied to RAO UES. The arrangement that allowed Inter RAO
to assume day-to-day responsibilities was based on personal trust. This kept Rosenergoatom away from cross-border trade. The head of Inter RAO, Dod, managed the routine affairs but kept a low profile. He may have been close to Igor Sechin, but was clearly less close to Chubais (The Moscow Times, 2009b). Rappoport, on the other hand, was not close to Sechin (Mazneva, 2008b). Chubais was involved in Inter RAO’s expansions and investments and overall business strategy up to 2008. As senior manager, he also took charge of the political side of Inter RAO’s business. Chubais’s network ensured government support for Inter RAO operations.

There was little state interference in Inter RAO’s development before late 2006, when discussions began on the question of Inter RAO’s ownership after RAO UES reform. According to Theresa Sabonis-Helf, Inter RAO was created ‘so that foreign generation holdings of RAO-UES will not be affected by the electricity reform currently under way in Russia’ (2007b, p.430-431). This was also flagged in the Russian press to explain why Inter RAO’s expansion occurred so close to RAO UES’s planned dissolution (Gotova, 2003; Sikamova and Efimov, 2003; Khrennikov, 2006). The purpose of Inter RAO was sometimes seen as ensuring that RAO UES’s top management, not least Rappoport, retained their lucrative positions in the future. This supposition was not baseless, as I show below.

Inter RAO’s expansion also enabled the Russian state to retain its influence in the post-Soviet electricity sector. This was profitable (Perovic, 2006, p.96). Chubais and other management representatives were always careful to point out that investments were made on a commercial, not a political motive. Rappoport at one point denied that Inter RAO’s

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17 The date for unbundling and privatisation was in the process of being pushed forward to 2007–2008.
Board had even discussed the political implications of the South Caucasus investments (Siluyanova, 2004b). According to one source, the question of commercial gains from post-Soviet expansion was raised by RAO UES’s board, but brushed aside by the chairman, Voloshin (Siluyanova, 2005a). Chubais clearly saw Inter RAO as fulfilling a geopolitical mission in its South Caucasus acquisitions, and indicated that the investments in Georgia and Armenia were made in cooperation with the Kremlin (Egorova, 2005). Using informal contacts to cut across the formal institutional framework was essential to preserve Putin’s support. This applied even as RAO UES was formally authorised to make the decision. The balance between formal and informal channels of access and participation was tilted towards the informal. Representatives of the state repeatedly viewed Inter RAO expansion in light of foreign policy. This occasioned worries around the question of ‘to whom they will belong after restructuring, and how much has been paid for them’, in the words of one government source in late 2003 (Egorova et al., 2003).

3.9 The end of the monopoly

Chubais remained an independent state company leader, and critic of Putin. While Russian business leaders generally took Khodorkovskii’s arrest in October 2003 as a signal to keep quiet (p.170), Chubais went much further in his criticism than anyone else (Vardul’, 2003; Kommersant-Vlast’, 2005), especially during Putin’s second term (Derbilova and Panyushkin, 2007). At this point, RAO UES had become a ‘refuge’ for Yeltsin-era liberals (Wengle, 2012, p.449). After Putin’s pre-election speech in Luzhniki stadium in November 2007, when he invoked the image of domestic and foreign enemies, ‘oligarchs’ in particular, Chubais replied by calling Medvedev the better choice for president and criticised Putin for ‘spitting on his predecessors’ (Latukhina, 2007). After this incident, contact between the two faltered (Kolesnikov, 2008, p.183; 300-301).
The RAO UES reform progressed as planned, however. Chubais seemed to have an informal guarantee of RAO UES’s autonomy and overall support for the reform, giving him a carte blanche in implementation. By 2006–7, Putin and Chubais disagreed about most things, including electricity reform, though the former was not inclined to interfere (Kolesnikov, 2008, p.264). Chubais was supported by the liberals in Putin’s government (Wengle, 2012, p.449). Voloshin was another effective advocate of reform (Gazeta, 2003; Gorelov, 2003; Smirnov, K., 2004). The reform attracted investment, enabling Russia to escape an impending power generation capacity shortfall (Derbilova et al., 2012) and increasing the sector’s value ahead of privatisation (Wengle, 2012, p.451). It also increased the state’s capacity in the sector by establishing functioning market mechanisms (Wengle, 2012, p.436-437). Stalling the reform would have brought back the old problem of a sector beyond state control. The electricity reform, like the reform of Rosatom (ch.4), restored state capacity in a previously insulated sector and made it governable. But it was different from the latter reform, and indeed from the general tendency of state organisations in Putin’s first and second presidential periods, in consisting of the dissolution of a monopoly and the privatisation of state property (cf. Vin’kov, 2008). The process undercut the power of regional governors, which served Putin’s centralising project well (Wengle, 2012, p.451-452).

RAO UES was dissolved on 19 June 2008. The establishment of a competitive electricity market depended on the implementation of key elements in the coming months. With RAO UES gone, and Chubais ensconced in another company, the process slowed down somewhat (Skyner, 2010; Solanko, 2014). In 2012, one key market participant called the reform incomplete (Dokukina, 2012). It seems that Chubais had lost some of his influence over reform implementation in the final months before June 2008. To some extent this was
a consequence of the reform design, which vested the Energy Ministry with considerable regulatory power after RAO UES’s dissolution (Derbilova et al., 2012). Chubais then lost formal and informal influence over key appointments. Other members of his team also lost their positions. The same happened to both Rappoport (Medvedeva, 2007a; Mazneva, 2008b) and Voloshin (Kommersant, 2008b). Yuri Udaltsov, another key RAO UES manager, was relegated to the government’s expert group on electricity reform (Dokukina, 2012). Crucial new organisations like the Market Council, the state organisation responsible for monitoring prices, were headed by people closer to Sechin and the Kremlin (Vedomosti, 2008; Skyner, 2010, p.1399-1400). The Market Council later introduced caps on wholesale prices. As Chubais commented in 2012, the Energy Ministry was not up to the task of putting its regulatory powers to use (Derbilova et al., 2012). The Energy Ministry had been strengthened, and formal institutions became more important in interactions within the elite, but there were limits. When faced with demands by members of the ruling coalition, the Energy Ministry was overruled.

3.10 Inter RAO comes into its own

During the electricity reform, state representatives and Inter RAO’s agreed on the priority of keeping Inter RAO’s assets in one company and protecting the de facto export-import monopoly. To Chubais, it was essential to maintain Inter RAO’s monopoly until neighbouring, post-Soviet markets developed to a level where they could reliably predict electricity demand (Gaidar and Chubais, 2008, p.141).

State representatives connected the state ownership of Inter RAO to post-Soviet influence. In 2007, a representative of the Industry and Energy Ministry commented on a possible sale of Inter RAO:
It’s a strategic stake. As the company sells electricity abroad, it influences the policies of many states, above all in the CIS. (Medvedeva, 2007b)

Another government source called Inter RAO a ‘knife switch’[^18] and a ‘serious argument in dialogues with neighbouring states’ (Egorova, 2006b).

The legal status of the foreign trade monopoly remained unclear. According to the electricity reform legislation, there was no monopoly on foreign trade. It was regulated like trade in general (Federal Law No 35, 2003). RAO UES’s trade monopoly was a practical consequence of its domestic transmission monopoly. The grid would remain a state monopoly post reform. But access to it, and thereby to foreign trade, would be open to market participants (Federal Law No 35, 2003, para.30-31). In 2006, the Audit Chamber highlighted the absence of a legal basis for the transfer of foreign trade from RAO UES to Inter RAO (Gorelov, 2006; Medvedeva, 2006). Rappoport’s dual role in charge of foreign trade at RAO UES and as Board Chairman of Inter RAO occasioned doubts on whether RAO UES had formally granted Inter RAO a foreign trade monopoly, or simply informally allowed it to effectuate such trade. The latter was indirectly confirmed when the effectuation of foreign trade upon RAO UES’s dissolution automatically passed not to Inter RAO, but to the Federal Grid Company (FSK) (Gorelov, 2008c). In 2006 things were left as they were. Informal political support for RAO UES’s management preserved the monopoly. The state’s increasing control of the energy sector during Putin’s second term reinforced this support. To both state representatives and market participants, foreign trade was relatively insignificant and based anyway on long-term contracts. After RAO UES’s

[^18]: An open switch for high current circuits, now generally replaced by closed safety switches.
dissolution, there was still a lack of detail in formal regulatory framework for cross-border electricity trade (Gorelov, 2008c). Inter RAO continued in a monopoly position due to its market share.

By 2006, everyone agreed that Inter RAO would remain in state hands, but the details of the ownership structure were subject to intense negotiation. Throughout 2006 and 2007, Inter RAO’s pre-reform management, with Chubais’s support, sought the RAO UES Board’s approval for a management stock option (Gorelov, 2007b). They first demanded a 15 percent stake in Inter RAO’s ordinary shares, which would reduce the state’s stake. A second demand was for 9.9 percent (Gorelov, 2007b). In the end, the management was awarded one-off bonuses and no ownership (Gorelov, 2007b). The struggle revealed the hostility of state representatives, especially Rosatom representatives, to the current management as future minority owners of Inter RAO.

In 2006, Chubais preferred a 100 percent sale to Gazprom (Grib and Kornysheva, 2006). Rosenergoatom naturally preferred a 100 percent transfer to Rosatom (Grib and Kornysheva, 2006). In May 2007, Chubais advised Putin to retain Inter RAO’s pre-reform management, but spoke to deaf ears (Gorelov, 2007b). Only in late 2007 was an unequivocal decision taken to let Rosatom become a majority shareholder in Inter RAO (Medvedeva, 2007a). On Chubais’s advice, Inter RAO was then reorganised as an open-stock shareholding company, and received some of Russia’s most modern generation technology (Gorelov, 2007b; OAO Inter RAO, 2008; Dzaguto, 2010c). The new company was transferred to Rosatom.

As Rosatom’s subsidiary, Inter RAO was subject to more direct state control. Both the company’s management and its Board had changed substantially by 2009. Dod left Inter
RAO for RusGidro, the hydropower company, in November 2009. The new young Director General, Boris Kovalchuk, came from Rosatom and had experience from Dmitrii Medvedev’s team (Inter RAO, 2009e; The Moscow Times, 2009b). He was also the son of the well-known businessman Yurii Kovalchuk, Board Chairman of the Rossiya Bank, and a friend of Putin’s. Energy Minister Shmatko was on the Board in 2008–11, though it was chaired by Deputy Prime Minister and Rosneft Board Chairman Sechin (Grishkovets et al., 2008b). Inter RAO’s Board was no longer small and relatively insignificant. In 2008–11, its eleven members represented diverse state, state-controlled and private interests (Inter RAO, 2009d). Sechin used his position as Board Chairman to expand the state’s influence in the energy sector (Fialko et al., 2010). The role, and interests, of minority shareholders diminished (Grishkovets, 2008c; 2009).

3.11 Inter RAO Group

In 2011, Inter RAO Group, as it was now known, integrated vertically through acquisitions in retail electricity supply and power engineering. A leaner RAO UES-like structure was the result, with the crucial exception of the electricity grids (Fialko et al., 2010; Ispolatov, 2010a; 2010b). The acquisitions were financed by a private placement with the Russian state, Russian state energy companies and private investors, increasing Inter RAO’s capital stock threefold. Rosneft, RusGidro and Norilsk Nickel became shareholders (Inter RAO, 2011c). The reduction in direct state ownership opened for ownership by state-owned companies and companies that supported the regime (Ispolatov, 2010a; Dzaguto and Grishkovets, 2011; Inter RAO, 2011d; 2011a). Inter RAO became the third-largest electricity company in Russia, controlling 10 percent of power generation (Solanko, 2014, p.135). With Rosatom, RusGidro and GazpromEnergo, the state now controlled over half of Russia’s generation capacity (Solanko, 2014, p.146).
In 2011, Sechin and Shmatko left the Board, following President Medvedev’s decree to reduce government representation on Russian company boards (Sterkin and Mazneva, 2011). Sechin, president of Rosneft from 2012, returned as Board Chairman in mid-2013 (Inter RAO, 2014, p.96). In late 2013, Rosneftegaz, the state’s holding company for the oil and gas sector, headed by Sechin, acquired Rosatom’s stake in Inter RAO (Inter RAO, 2014, p.131).

Regime control with Inter RAO increased from 2011. Its management participated in official delegations to India, and opened offices in Cuba and Abu Dhabi (Inter RAO, 2011b). There were investments in Laos (Skorlygina and Dzaguto, 2012). A new expansion plan for Latin America and Asian states, several of which had notoriously unprofitable electricity sectors, indicated that foreign policy considerations weighed more than commercial opportunities (Grishkovets, 2008c; Kommersant, 2009; Inter RAO, 2010c). Electricity exports to China were renewed and considerably expanded (Bogomolova, 2009; Dzaguto and Grishkovets, 2009; Inter RAO, 2011d, p.76; Vostochnaya energeticheskaya kompaniya, 2014). Inter RAO became an instrument of foreign policy outside the post-Soviet region.

The days of a complete foreign trade monopoly ended (Grishkovets, 2010b). TGK-1, owned by Gazprom and Fortum, and ENEL’s electricity subsidiary, Rusenergosbyt, pursued a limited cross-border electricity trade in 2011 (TGK-1, 2012, p.33; Vasil'ev, 2012, p.61), but Inter RAO remained the dominant exporter (TGK-1, 2012, p.33).

3.12 The post-Soviet region: Ubiquitous Inter RAO

To fuel further expansion and reap the benefits of a dominant position in foreign trade, Inter RAO had to be useful to foreign policy. The annual reports for 2009 and 2010 placed
equal priorities on growth within Russia and without Russia (Inter RAO, 2010b, p.50; 2011d, p.63). The 2009 business strategy prioritised reliable service in Russia at the expense of synchronisation with neighbours (Inter RAO, 2010b, p.50). However, by 2010, the goal of integrating electricity markets and open up for transnational trade was back (Inter RAO, 2011d, p.64). Foreign operations continued to expand.

Inter RAO’s expansion in Georgia continued in 2009. The Inguri hydropower plant straddled the boundary between the Zugdidi region and Abkhazia, with Abkhazian control of operations. Overall management in the 1990s and 2000s was the only point of cooperation between the Georgian government and the Abkhazian authorities. Inguri was the largest hydropower plant in the South Caucasus, supplying electricity to Georgia, Abkhazia, and Sochi in Russia. After the 2008 Russian–Georgian war, the Abkhazian authorities took issue with this state of affairs (Kevorkova, 2008; Simonyan, 2008c). They planned to privatise the management rights for Inguri in return for modernisation and repairs. The Georgian government promptly resumed its plans for the privatisation of Inguri and some smaller hydropower plants. Its aim was to encourage the Azerbaijani company, Azerenerji, to tender a bid (Simonyan, 2008b). Abkhazia’s authorities meanwhile pursued contact with Inter RAO (Kevorkova, 2008; Simonyan, 2008a). To their surprise, Inter RAO then agreed with the Georgian government on a joint management arrangement for the plant (Grishkovets et al., 2009; Simonyan, 2009). Dod sought Abkhazia’s approval of the deal (Gordienko, 2009). The Georgian government saw Inter RAO as more reliable than the Abkhazian authorities (Embassy Tbilisi, 2009). The agreement was controversial in Georgia. Saakashvili’s government argued Inter RAO’s case against considerable opposition (Simonyan, 2009; The Moscow Times, 2009a). Inter RAO’s position in Georgia was good. It stood for 35 percent of the electricity supply, and
avoided interruptions during the war (Embassy Tbilisi, 2009). Inter RAO also carefully avoided taking excessive political risks, causing it to turn down an offer of Russia’s 50 percent stake in the company GruzRosEnergo that controlled grids in parts of Russia, Georgia and Abkhazia (Dzaguto and Grishkovets, 2011). The stake was eventually transferred to FSK.

Inter RAO’s operations in Armenia changed less, but were used as tools to shape energy relations with Iran (pp.272-3). Seventy percent of Armenia’s electricity exports went to Iran in 2010 (Oganesyan, L., 2009; Polyakova, 2010).

Relations with Ukraine stalled. Ukraine’s share of Russian electricity import fell from 27.9 percent in 2005 to 0.2 percent in 2009 (Inter RAO, 2006; 2010a). By 2008, Ukraine received 5 percent of Russia’s exports (Inter RAO, 2009c, p.68). Relations with Belarus also deteriorated. In 2010, Belarus tried to increase electricity transit tariffs to pressure Russia in the oil transit dispute (p.222) (Grishkovets, 2010a), though the transit volumes were too small for the ploy to yield any result. As the dispute unfolded and Belarus faced liquidity problems, electricity relations worsened. Belarus’s debts accumulated. In 2011, Inter RAO disconnected Belarus (Dzaguto et al., 2011). Exports resumed only when President Medvedev intervened, in what appeared to be a political signal conveyed by Inter RAO (Grishkovets, 2011).

In July 2008, Inter RAO again consolidated complete control of Moldova GRES in a 63 million US$ deal with FREECOM, leaving its owners with 125 million US$ for its two-and-a-half-year-long ownership (Embassy Chisinau, 2008; Grishkovets, 2008a). A Hungarian company, EMFESZ, belonging to the Ukrainian businessman Dmytro Firtash, was possibly involved in the deal (Zateichuk, 2007; Grishkovets, 2008a; Inter RAO,
2008; Peretolchina, 2008). From 2009, Moldova again had Moldova GRES supply following problems with Ukrainian suppliers (Grishkovets et al., 2008a).

In Kazakhstan, the package deal between from 2004 also included plans to expand the Ekibastuz-2 thermal power plant with two new units. In late 2009, financing for one of them was included in the credit line Russia opened for Kazakhstan during the financial crisis. The financial package from Vneshekonombank was finalised in 2010 (Inter RAO, 2009b; Granik, 2010; Gabuev and Konstantinov, 2011) and construction work started in 2011 (Inter RAO, 2014, p.84). Also in 2010, Inter RAO came close to acquiring 50 percent of Ekibastuz-1 (Bol'shakov and Ishmukhammetov, 2007). Instead, however, Kazakhstan strengthened state ownership in the electricity sector (Grishkovets and Dzaguto, 2009; Mazneva, 2010).

In Tajikistan, Sangtuda-1 was completed in 2009 and opened by the two presidents (Inter RAO, 2009g). The Russian government now owned 83.5 percent of Sangtuda-1: 66.4 percent directly, 14.9 through FSK, and 2.24 percent through Inter RAO (Dzaguto, 2009a). Inter RAO planned a shares issue to take over some of the government shares (Inter RAO, 2009a), but this did not happen. Tajikistan quickly ran up electricity debts to Sangtuda. Exporting to Russia through swaps was proposed as a means of debt recovery (Dzaguto, 2009b). In August 2011 Sangtuda started exporting to Afghanistan.

Inter RAO’s success at Sangtuda-1 opened up other possibilities for the company. Rogun, a much larger unfinished Soviet project, was also included in the 2004 deal, but with the Russian aluminium company RusAl as Russian partner (Marat, 2010). By 2007, RusAl and Tajikistan’s government disagreed over Rogun. Tajikistan abrogated the agreement (Marat, 2008a; Panfilova, 2009a). Russia, Chubais then declared, was not going to abandon the
Rogun project, implying the participation of RAO UES/Inter RAO (Solov'ev and Grishkovets, 2008). This was approved by all parties, yet there was no progress in the negotiations. Sergei Naryshkin, head of the Presidential Administration, took part in the negotiations (Gorelov, 2008a; Panfilova, 2008b). The Tajik government tried to attract Iran and Pakistan to join the project, to no avail (Grishkovets, 2008b). The government broached other possibilities, such as an international consortium with Russian participation. But neither RAO UES/Inter RAO nor the Presidential Administration would go along with less than half of Rogun if Russia were to finance the project. A minority stake was unacceptable to Tajikistan (Grishkovets and Ravinskii, 2008; Grishkovets and Solov'ev, 2008). By now, bilateral relations were complicated further by the economic crisis (Gabuev, 2009; Panfilova, 2009a). The Tajik government proceeded without Russian participation (Marat, 2008b; 2010).

In Kyrgyzstan, the 2005 Tulip Revolution delayed the expansion of Kambar-Ata HPP, in which Chubais had declared a RAO UES interest the year before. The tender for Kambar-Ata 1 came in 2007, while Kyrgyzstan would complete Kambar-Ata 2 on its own (Panfilova, 2008a). Kazakhstan participated in the Kambar-Ata 1 tender (Zhelenin, 2007b). Russia’s bid succeeded, and Inter RAO proceeded jointly with a Kyrgyz counterparty in June 2009 (Inter RAO, 2009f). Riots and regime change in 2010 further delayed Kambar-Ata 1, but also put Kambar-Ata 2 back into the contest. Cost estimates then stood at 1.7–3 billion US$, to be financed by Russian credits (Gabuev and Karabekov, 2011; Panfilova, 2011).

In 2010, Russia was invited to participate in the Central Asia-South Asia-1000 (CASA-1000) project. Originally a project involving Tajikistan, Afghanistan and Pakistan, it would
construct high-voltage lines from Central Asia to Peshawar in Pakistan. Inter RAO proposed supplies from Kambar-Ata 1 and Rogun (Dzaguto, 2010d). Russia later offered 500 million US$ in project funding in return for Inter RAO control of the line (Dzaguto, 2011d).

3.13 Conclusions

The Russian electricity monopoly emerged unreformed from the Soviet period. By 1993, RAO UES was a semi-reformed holding company under nominal state control. It had little control of regional power companies, while informal rent streams were siphoned off at every level. The Russian state did not have, and appears not to have sought, full regulatory access to the electricity system beyond perfunctory formal meetings. RAO UES did not participate in institutional development and policymaking, and there was little of either. In terms of the structure of interaction, the electricity industry had extensive autonomy.

As the formal channels of access and participation atrophied, the state was left incapacitated and fragmented. Informal access and participation dominated state–company interaction, the basis of which was an exchange of mutual support and rent sharing between regional and industrial elites and the ruling coalition. This preserved elite stability, especially in the regions, where elites constituted select circles of claimants. Wider rent sharing in the form of cheap electricity and non-payments stabilised society. It also cultivated dependence on the state, but in particular on Yeltsin’s ruling coalition.

While the trade in electricity in the post-Soviet region waned rapidly, barter, soft payment constraints, and informal channels of participation and rent sharing entered post-Soviet electricity trade, too. In this way, dependence on Russia was cultivated also among post-Soviet elites and populations. However, RAO UES was unable to shoulder this burden
interminably, and customer relations in the post-Soviet states translated into hard constraints and real payment terms after the 1998 financial crisis. This was subsequently also the case with domestic customers.

When Chubais took over at RAO UES in 1998, structural reform was long overdue. The reform was prepared during Yeltsin’s second presidential period and pushed through in the early years of Putin’s first. It was a political project aimed at increasing state capacity and creating electricity markets. The state gained real regulatory powers and real, formalised access to the electricity industry. Regional authorities and sector insiders were marginalised. Arrears and debts were cleared. While formal channels were used to boost state capacity in this way, Chubais and his team complemented them with informal channels of access and participation to achieve results. At the highest level, Putin supported both reform and foreign operations. On this point, RAO UES as a case differs from the other state-owned companies studied here. The state reduced its direct engagement in electricity and increased its indirect regulatory powers through market institutions. To the extent that the reform gave companies almost free access to electricity markets in substantial parts of the country, the state now had far greater capacity to support complex economic organisations (p.9). For the state, electricity reform was also a process that resulted in an indirect relationship, structured through market regulation, with the electricity industry. State organisations became more specialised, with a clearer delineation between policymaking and administrative functions. This extended to ownership, which in the electricity sector was now more specialised, also among state companies. But while markets and companies were now further removed from the state’s reach, the state retained control of a substantial part of the sector indirectly via ownership ties.
While Inter RAO passed to Rosatom in the course of the reform, it also came into the orbit of the regime through the involvement of Sechin, and most likely also Kovalchuk. The later reform stages, after the dissolution of RAO UES and the foundation of a wholesale market for electricity, progressed only slowly and partially. When Chubais in 2012 commented on the Energy Ministry’s weakness in putting its regulatory powers to use, it illustrates precisely the type of regime influence that was exercised through the state-owned majors in the electricity sector after 2010. The reform enabled the state to exert property rights, and thereby empowered the regime. There were indications that the post-reform institutional framework, part of a now more mature social order, came into conflict with the privileges of the ruling coalition.

The electricity switch was used as a tool at an early stage to recover post-Soviet electricity debts. With a subsidiary for cross-border electricity trade, Inter RAO, RAO UES’s management ensured that foreign operations continued relatively unaffected by reform. Inter RAO expanded, partly shielded from formal hierarchies within and without RAO UES. Informality and personal trust were at the heart of the company’s operations until well into 2006. Informality seems to have enabled a sharing of electricity rents with host country businessmen, most conspicuously in Moldova. When Inter RAO survived intact in the post-reform era, it was because it was a tool of the state in the post-Soviet region. While RAO UES no longer existed and cultivated dependence on the state at home, Inter RAO maintained these functions abroad. It maintained dependence on Russia in the post-Soviet electricity sector, by virtue of its ubiquitous role in enabling electricity development across the region. Dependence was sometimes used to coerce, with Inter RAO being the carrot and enabler to Gazprom’s stick, as I will show in chapter seven. Inter RAO seemed to accept its role as instrument of foreign policy, after 2008 as well, when it seemed to
direct its rents at foreign policy goals to invest in distant electricity sectors of variable commercial merit. It became a tool of a regime-led foreign policy towards Asia and Latin America. Institutional changes at home had made it more, not less, accessible to the state and this was why it could become a prominent factor in Russia’s foreign policy.
4. NUCLEAR ENERGY: ROSATOM

The study of the electricity sector in Chapter 3 showed how informal rent sharing and informal institutions in the 1990s continued into the post-Soviet region. Formal rent sharing, and formal institutional change towards indirect management by the state in the 2000s also extended into the post-Soviet region. There, increased Russian state capacity in the electricity sector maintained dependence on Russia. In the nuclear energy industry, too, the Russian state and companies in the industry interacted over foreign policy and foreign operations to the extent that they participated in institutional development at home. Crucially for foreign operations, post-Soviet nuclear development remained dependent on Russia. In Ukraine and Kazakhstan, nuclear energy industry development depended on access to Russian technology and infrastructure.

Rosatom is a holding company for the Russian nuclear energy industry. Table 4.1 lists Rosatom’s predecessors. Rosatom’s civilian side, the nuclear energy industry, comprises several companies united under Atomenergoprom, a subsidiary holding company.19 The Rosatom subsidiaries relevant to this study are those involved in the nuclear fuel cycle and nuclear power plant (NPP) construction in the post-Soviet region: TVEL, ARMZ, Tekhsnabeksport and Atomstroieksport. The fuel company TVEL has 17 percent of the world nuclear energy market, producing and selling Russian-produced and designed fuel cells to many countries. The uranium holding ARMZ is one of the world’s five leading uranium mining companies and unites all of Rosatom’s uranium and raw materials assets.

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19 Rosatom holds enterprises in the nuclear military complex directly. Nuclear construction was in 2011 incorporated in the Atomenergomash holding.

20 The nuclear fuel cycle refers to all the stages from uranium ore mining and extraction, processing into $\text{U}_3\text{O}_8$ (yellowcake), conversion to uranium hexafluoride (UF6), enrichment, fuel production and electricity generation to spent nuclear fuel which can be reprocessed (closed cycle) or stored as waste (open cycle).

21 ARMZ was until 2008 Atomredmetzoloto, when it became Uranovy kholding ARMZ (Uranium holding ARMZ).
Tekhsnabeksport\textsuperscript{22} is the world’s largest exporter of uranium and uranium products, and holds a 40 percent share of the global market in enrichment services for fuel purposes (Atomstroyeksport, 2011a). Atomstroyeksport is a leading supplier of nuclear power stations to the world market. In 2010, the nuclear energy industry contributed 78.4 percent of Rosatom’s turnover, and nuclear energy exports contributed approximately 29 percent (Dzaguto, 2011a). Table 4.3 lists Soviet and Russian-produced reactors in the post-Soviet region and beyond.\textsuperscript{23}

4.1 The break-up of the Soviet Union and Soviet legacies

Until 1986, the Soviet military and civilian nuclear industries belonged to Minsredmash, the Ministry for Medium Machine-Building (Cooper, 1991, p.7, 17; Perera, 1997, p.14-16; 35-40). Following the Chernobyl disaster of May 1986, there were attempts to restructure the nuclear industry, but it remained overblown, inefficient, and unsafe (Kudrik et al., 2004, p.25-26). When foreign trade was reorganised in 1988, the nuclear industry acquired control of official foreign trade in nuclear materials, conducted through Tekhsnabeksport (Tekhsnabeksport, 2014). In 1992, the Russian segments of the civilian nuclear industry were reconstituted by decree as the Nuclear Energy Ministry, Minatom (Decree No 61, 1992). Minatom had ministerial policymaking, planning and executive powers, with no clear delineation of military and civilian divisions of the nuclear sector (Decree No 61, 1992; Bukharin, 1995). Minatom had little ability to design specific policies for the different parts of the nuclear industry. Enterprises involved in the nuclear fuel cycle formed specialised companies directly subordinate to Minatom. There, the personnel changed little from the Soviet period to around 2000. For example, the Minister for

\textsuperscript{22} Tekhsnabeksport operates as Tenex internationally.

\textsuperscript{23} An overview of reactor types, including pressurized water reactors like the Russian VVER, is found at the website of the World Nuclear Association (2014c).

4.2 Keeping afloat and muddling through

The new nuclear industry companies, including TVEL, ARMZ, Tekhsnabeksport and Atomstroieksport, evaded the disruptive privatisations of the early 1990s. Nuclear power plants would also remain in state hands (Palamarchuk et al., 2001, p.53). But from 1993, a select number of enterprises subordinate to Minatom could be partially privatised, apart from sensitive institutes and factories (Decree No 446, 1993). In this process, licensing requirements and state stakes or golden shares\textsuperscript{24} benefited company directors and industry insiders (Kudrik et al., 2004, p.26; Jeppesen, 2006, p.20-25; Pappe and Drankina, 2007). TVEL and Atomredmetzoloto, state ‘concerns’ from 1991 turned shareholding companies in 1992, were ripe for privatisation (Kadosov, 1992b; TVEL, 2014; Uranovyi kholding ARMZ, 2014).

Privatisation could have started a process of differentiation of state and private organisations. The reality in the nuclear energy sector became instead a grey zone at the state’s fringes, with little access for central state organisations. Private gain and informal relations became the norm. Privatisation undermined the hierarchy of state organisations, with the state incapable of establishing institutions to control and support private organisations. The boundaries between state and non-state were blurred from the beginning.

\textsuperscript{24} A golden share is a nominal share that gives an owner, often a government, direct influence over company development and an opportunity to outvote other owners on specific issues. It is an instrument associated with privatisation processes and with sectors of strategic interests to states.
In 1995, major banks and investors were allowed to accept shares as collateral for fresh loans to the Russian state. The arrangement (‘loans for shares’) allowed major businessmen to obtain a share of informal rent streams in state organisations, and later to acquire the companies when the state defaulted, as expected, on its debts. On the list of companies up for auction, one was a nuclear energy company, Tekhsnabeksport (Segodnya, 1995a). It may have been the result of efforts by Oneksimbank, which belonged to Mikhail Prokhorov and Vladimir Potanin. The bank was also seen to be close to Chubais (Pelekhova, 1998b). After an auction without bidders, possibly due to Minatom’s effort to reverse the process (Pelekhova, 1998b), Tekhsnabeksport was placed on a list of strategic enterprises and withdrawn from further auctions (Segodnya, 1995b).

Informal privatisation efforts proved more successful. The former Soviet nuclear energy industry minister (1989–91), Vitalii Konovalov, was central to the creation in 1991–2 of the company TVEL (Belyaninov, 2001). By 1996 there appeared to be a privately held TVEL Concern, duplicating the state-owned TVEL (Belyaninov, 2001). It positioned itself as the legal successor to the state-owned TVEL (Proskuryakov and Buran, 1994, p.51). TVEL was at this point being reorganised from a Minatom department into a joint-stock company (Decree No 166, 1996). It experienced severe cash-flow constraints (Perera, 1997, p.115). The private company survived, and exported uranium, until Konovalov was forced to resign in September 2000 (Proskuryakov and Buran, 1994; Belyaninov, 2001; Osetinskaya and Shcherbakova, 2001). The TVEL Concern supplied Ukraine with nuclear fuel for several years, and informal rent streams were likely channelled to a diverse group of claimants, keeping the sector afloat. According to Konovalov and others, the situation arose in an effort to save nuclear fuel production from disintegration and foreign takeover (Proskuryakov and Buran, 1994; Kuznetsov et al., 2006, p.25; 35; 38). Konovalov was
investigated by the Public Prosecutor in the mid-1990s, but was never charged (Belyaninov, 2001). The Security Ministry, too, was unable to ascertain the full extent of the illegal trade in uranium in the early 1990s, according to then Deputy Prime Minister Sergei Stepashin (Belyaninov, 2001). Konovalov remained important in TVEL and within the industry also after his resignation (Belyaninov, 2001).

The state’s lack of state control of the nuclear energy industry in the 1990s reflected the lack of state capacity. Minatom, like Minsredmash before it, was beyond state control and ruled by protective industry veterans. It survived on informal rent streams. Several subsidiaries, especially TVEL and Tekhsnabeksport, enjoyed considerable autonomy. There was a hierarchical relationship between ministry and enterprises, but little formal control. This was somewhat mitigated by the presence of company directors, i.e. of TVEL, on the Minatom collegium (Government Order No 775, 1992; Government Resolution No 175, 1992 (1993)).

The industry’s informal rent streams came from uranium sales. The Soviet Union officially entered the international uranium market in 1990. Scientists were then already engaged in an informal trade of nuclear material, often bartered in exchange for laboratory equipment. In 1991 and 1992, foreign trade relations multiplied, officially through Tekhsnabeksport, and unofficially through minor channels (Mikhailin, 1995). Foreign trade companies in the nuclear industry started doing deals outside the sector (Zotova, I., 1992; Kravchenko, 1994). Due to the absolute nature of the non-proliferation regime, a state’s nuclear energy relations can come into doubt if there is suspicion of any grey areas in contacts with other states. This lack of state control became a foreign policy problem. Contact with Iran, established in 1992, was initiated by the nuclear industry (Kommersant, 1992). It got out of
hand in 1995, when Nuclear Energy Minister Viktor Mikhailov (1992–8) signed a protocol of intent with Teheran on a Russian-built Iranian centrifuge plant for uranium enrichment (Orlov and Vinnikov, 2005, p.52). Neither the president nor the MFA (Ministry of Foreign Affairs) had been consulted. The protocol was quickly cancelled (Orlov and Vinnikov, 2005, p.52). There followed an uncontrolled proliferation of contacts between the Russian nuclear industry under Mikhailov’s successor, Evgenii Adamov (1998–2001), and Iran (Stenin, 2005). Similar situations occurred with India, Syria and Libya (Khripunov, 2001, p.54).25

The nuclear energy industry also pursued less risky partnerships with foreign agencies and companies, designed to keep the industry afloat (Serov, 1997; Yamshchikov et al., 1998; Kudrik et al., 2004). By 1994, non-payments and deferred salary payments were a regular occurrence (Segodnya, 1994; Popov, A., 1995; Alieva, 1998). Foreign partnerships addressed nuclear safety and non-proliferation following the end of the Cold War, and directed funds towards trained personnel, to keep them in their jobs and provide them with income. Programmes like the US-Russian Megatons to Megawatts26 saved the industry from collapse at a time when ‘people weren’t paid their wages’, as Mikhailov remarked (Perera, 1997, p.42; Koroleva, 2006). According to Konovalov, nuclear fuel sales abroad were the sector’s only source of income and covered ‘less than half’ of its costs (Alieva, 1998). In 1997, Minatom earned 2.2 billion US$ on its foreign (hard currency) contracts (Volchko, 1998). To avoid US anti-dumping procedures, Russia’s foreign trade in nuclear materials and uranium often involved middlemen (Kadosov, 1992a; Lavr, 1992). Uranium trade therefore undermined state control of the industry. There was ample opportunity for

25 At the time of writing, there is no indication that Russia does not keep its obligations within the international regime on non-proliferation regime in relations with Iran, but at that time, there were serious international worries about Russia’s interpretation of the non-proliferation regime.
26 Also known as HEU-LEU in English and VOU-NOU in Russian.
informal rent streams and embezzlement (Pavlov, 1998), also in Tekhsnabeksport (Kats, 1999). Minatom under Mikhailov refused to put a stop to this, in defiance of government orders (Bogatykh, 1999). Minatom’s informal rent streams protected it from central state interference, and the state was incapacitated.

4.3 The trade collapse

Within the Soviet Union, enrichment and fuel producing enterprises were located on Russian territory, and the country had about 80 percent of Minsredmash’s enterprises. The rest was now abroad. The most profitable uranium reserves were in Kazakhstan and Uzbekistan, but there was also some production in Ukraine (Table 4.2). Yellowcake and fuel pellet production took place in Kazakhstan. Trade collapsed after the Soviet break-up. For Russia, this was, as noted above, complemented by considerable expansion in the nuclear energy industry’s contacts beyond the region (Tarasov, 1998).

Demand for nuclear fuel declined as economies contracted, and planned projects were put on hold. Ukraine, Armenia and Lithuania remained dependent on Russia for nuclear fuel and heavily dependent on nuclear energy (Tables 1.2 and 4.3). Armenia shut down its reactors completely between 1989 and 1993, reopening one in 1993 using Russian fuel. The political and economic transition in Central Europe also led to reduced demand for Russian nuclear fuel.

Ukraine closed some reactors in 1992, and fuelled the rest from stocks (Voskresenskii, 2000). In 1993–5 Ukraine exchanged its nuclear warheads for Russian fuel. This began as a bilateral arrangement, which from 1994 included the US in anticipation of Ukraine’s

27 Orebodies in Kazakhstan are larger and the ore can be more easily extracted than in Russia’s deposits.
28 Yellowcake (U₃O₈) results from the processing of natural uranium. In the nuclear fuel cycle, yellowcake is converted and then enriched, see fn. 20 above.
29 Fuel pellets are pellets of fuel-grade uranium stacked inside fuel rods.
commitment to denuclearise and accede to the Treaty on Non-Proliferation of Nuclear Weapons (NPT) (Garnett, 1995; WNA, 2014b). In 1995 Ukraine procured fuel commercially for 1996 to 2010 from TVEL Concern, which won the tender (Voskresenskii, 2000). Ukraine represented up to a third of the international market for Russian nuclear fuel. The TVEL Concern was an attractive supplier to Ukraine due to its low prices, but also because it accepted payment in nuclear cycle goods (Vaganov, 1999; Voskresenskii, 2000). As the TVEL Concern rather than the Minatom subsidiary was the Russian counterparty and payment was by barter, the resource streams on the Russian side, too, probably went through both formal and informal channels. The arrangement appeared under bilateral agreements, but bore some resemblance to payment scams in fuel deliveries to Lithuania in 1995 (Perera, 1997, p.86). Ukraine ran up debts for nuclear fuel, and Russia withheld part of the supply for 1998 (Vaganov, 1999). In an effort to regulate the debt, in 1997 the trade was channelled through a multilateral Russian–Ukrainian JV, created for the purpose. The founding companies included the Ukrainian state property fund, a Ukrainian and a Russian bank, the TVEL Concern and a Ukrainian-Andorran entity (Prime-TASS, 1997). The payment arrangement benefited the Russian state less than private companies, and it persisted for several years (Vaganov, 1999; Voskresenskii, 2000).

Ukraine sought to diversify fuel supplies and maintained contact with Westinghouse, a major US nuclear energy company which had also participated in the 1995 tender.\(^{30}\) By means of further diversification, Ukraine conducted a tender for the construction of a nuclear fuel plant in 1995, narrowly won by TVEL (Zamyatin, 1996). Further development of the project was shelved at this point, for unknown reasons (Vaganov, 1999).

\(^{30}\) Traditionally, the choice of NPP design was also one of fuel supplier. Trials of one fuel type in a different reactor type are expensive and involve safety and technical tests over a long period.
To the Russian nuclear energy industry, ties with customers were still easier to maintain than those with suppliers. In 1993, post-Soviet uranium producers agreed to develop their production under an integrated organisation, with the aim of creating a transnational company (Kadosov, 1993). Accessing finance was a fundamental problem. States left with minor components of the Minsredmash system, like Kyrgyzstan’s Kara-Balta Mining Combine, lacked resources and sought Russian support (WNA, 2011c). Russia lacked the resources and also a strategic planning capacity to make use of such opportunities.

Deciding on priorities was also an obstacle slowing post-Soviet integration. It was exacerbated by the demands of the competitive and non-transparent international uranium market. Kazakhstan in particular was interested in expanding uranium production and looked to Russia for partnership and customers. But Russia had stopped importing uranium ore from Kazakhstan when the Soviet Union was dissolved. Uranium processed in Kazakhstan at the time was stranded (Koretskii, 1994). Views on the uranium market also differed. When Kazakhstan’s experts warned about an impending uranium shortage, Russian experts disagreed (e.g. Sidorenko, 1997, p.19). Minatom did not expand its nuclear ties with Kazakhstan; it left it to its subsidiaries. Atomredmetzoloto, Russia’s partner for an integrated uranium industry in the CIS, saw Kazakhstan only as a competitor on the international market. TVEL’s vision for post-Soviet reintegration was to see Russia become a dominant partner. It had little understanding of how circumstances had changed, however (Alieva, 1998). Atomredmetzoloto and TVEL maintained ties with Ulba, Kazakhstan’s only nuclear industry plant, due to the companies’ total inter–dependence. The Ulba plant processed uranium ore into yellowcake and produced fuel pellets from uranium enriched in Russia. Fuel pellet production was the only part of the nuclear cycle that was not located on Russian territory. In 1996 Atomredmetzoloto and TVEL ceased
payments, forcing Ulba to diversify its customer base (Perera, 1997, p.150; 153; Shmidke, 2006). Kazakhstan’s uranium production in 1997 was only 25 percent of what it had been in 1991 (WNA, 2011e).

4.4 Out of the shadows and into the financial crisis

By the mid-1990s, Minatom and its subsidiaries had weathered the post-breakup crisis. International uranium sales generated resources and allowed ministers and company heads to retain sector control. Non-payments at nuclear power stations were connected to problems in the wider economy. The government, especially Deputy Prime Ministers Chubais and Nemtsov, worked from 1997 to widen its control of the nuclear sector (Volchko, 1998). Minatom resisted structural reform, its autonomy protected by its considerable resources. Informal rent streams shielded it from interference, including access and participation within the hierarchy of state organisations. In late 1997, Minatom secured government support for an expansion programme in the domestic nuclear energy sector, and the reorganisation of nuclear power production into a Minatom holding company (Volchko, 1998).

Mikhailov’s resignation in early March 1998 was a surprise. A major scandal connected to the Megatons to megawatts programme was just unravelling, and there was speculation that Mikhailov had tried to save the industry by resigning (Pavlov, 1998), or conversely that the scandal was used as an excuse to get rid of an independent-minded minister (Emel’yanenko, 1998). His first deputy, Aleksandr Belosokhov, also resigned (Pavlov, 1999). However, at the time several banks were fighting for the control of Minatom’s income streams from abroad (Gotova, 1998; Pelekhova, 1998b). Two banks, Oneksimbank and Menatep, were in a position to influence outcomes at the level of the president via
Chubais and the prominent businessmen Boris Berezovskii and Roman Abramovich, all of whom had connections with the ruling coalition. A third bank, Natsional’nyi rezervnyi, was vying for the position of insider bank with the established sector bank, Konversbank (Gotova, 1998; Pelekhova, 1998b).

Mikhailov’s most likely successors in Minatom were Konovalov of TVEL and the prominent nuclear scientist Evgenii Adamov. Konovalov had proposed in 1991 an integration of the nuclear fuel cycle companies into one organisation (Pelekhova, 1998a). He now proposed to restructure the industry into a military, a civilian and a scientific branch (Pelekhova, 1998a). He was known to have a dismal view of outside influence in the sector. In particular, he was hostile to Oneksimbank’s and Menatep’s advances into the sector’s financial streams (Pelekhova, 1998b). Adamov was less politically experienced but was supported by Abramovich (Gotova, 1998; Pelekhova, 1998b), and was appointed in the end (Pelekhova, 1998b; Vaganov, 1998). Following the financial crisis in August, he selected Konversbank as Minatom’s overall banker (Gotova, 1998).

Konovalov continued to push for a reorganisation of the nuclear energy industry divorced from the military and science branches (Pelekhova, 1998b). This included a proposal to Gazprom, in which he offered Gazprom a prominent role, possibly a stake, in a partially privatised nuclear energy industry, in return for financial support for TVEL (Oganesyan, T., 1998; Pelekhova, 1998a; Agentstvo ekonomicheskikh novostei, 1999).

Efforts under Mikhailov (1992–8) and Adamov (1998–2001) to introduce contemporary management and financial practices and turn Minatom into a ‘team player’, in short, to facilitate state access to the industry, were regularly perceived as attacks on the industry (Khripunov, 2001, p.50; 57; cf. Sotnik, 2001) and its rent streams. Adamov was popular
within the sector. He followed government orders (Bogatykh, 1999), and had Chubais’s and Berezovskii’s support (Gotova, 1998). He would have been well positioned to launch a reform. But his efforts to create a market-economy version of Minsredmash met with resistance in the military nuclear industry (Khripunov, 2001, p.55). After his resignation in 2001, he was credited within the nuclear sector for the nuclear revival that followed the crisis years (Atomnaya strategiya, 2009). But real structural reform of the sector was postponed, with lack of progress at home and a wide variety of foreign activities beyond government control. Before March 1998, Minatom had been largely autonomous of other state organisations, including of the cabinet ministers directly in charge of its oversight. The lack of a channel to central state actors hindered institutional development.

4.5 A new approach to the post-Soviet region

The most profitable section of the post-Soviet nuclear industry, uranium mining in Kazakhstan, was the first to initiate programmes of renewal and expansion. Kazakhstan created a state company in 1997 to manage the nuclear industry, Kazatomprom, aiming to become the world’s leading uranium extractor by 2010 (Grudnitskii, 2006a; 2006b). This would be a starting point for a full nuclear fuel cycle. The plans were revealed in 2000, when the uranium price was at a historic low point (Graph 4.1). A careful expansion of Kazakhstan’s nuclear ties with Western, Japanese, Chinese and Russian companies followed. Before 2004, Kazatomprom aimed for maximum reintegration with Russia (Grudnitskii, 2006a). Russian companies and Minatom were interested in Kazakhstan’s fuel pellet production and future uranium supplies, but did not consider Kazakhstan a partner in the nuclear fuel cycle (Grudnitskii, 2006a). Giving Kazakhstan a stake in enrichment was off the Russian agenda well into the 2000s, even if the enrichment process
were to remain under Russian control. Kazatomprom’s overtures on cooperation and partnership in enrichment found little response in Russia (Grudnitskii, 2006a).

Instead, Russia from 1996–7 promoted tripartite cooperation with Kazakhstan and Ukraine in nuclear fuel production in the JV Uktvel, dominated by Russia (Koretskii, 1997). Kazakhstan would supply fuel pellets, Ukraine would make zirconium casing for the fuel rods, and Russia would enrich the uranium and assemble fuel rods (Koretskii, 1997; Voskresenskii, 2000; Shmidke, 2006; Ryasnoi, 2008b). Progress was slow. Ukraine was financially constrained and would have preferred a barter-tolling agreement to a JV. Ukraine’s decision makers disagreed over a partnership with Russia (Koretskii, 1997). Russia took Kazakhstan’s participation for granted, to which Kazakhstan responded with very patient negotiation (Koretskii, 1997). The JV was established in 2003 (Starostin, 2003). Technical difficulties in Ukraine initially slowed production, however (Ryasnoi, 2008b; Ivzhenko, 2010).

Ukraine continued to explore diversification in nuclear fuel supply, a factor it made use of in negotiations over terms with Russia (Rubtsov, 1999). In 2000, Ukraine and Russia agreed to exchange uranium concentrate and zirconium alloy for nuclear fuel, with only 35 percent of Ukraine fuel paid for in cash (Perera, 1997, p.146-147; Vaganov, 1999; Voskresenskii, 2000; WNA, 2011d).

4.6 The new coalition

By 2000, progress in Russia’s nuclear energy sector was held back by a lack of mutual access and participation, even contact, with state organisations. The state had little access to Minatom’s foreign contacts. One of Rosatom’s key reformers, Anna Belova, later remarked that Russia’s nuclear sector had been less modern compared to other nuclear
powers (Belova, 2008; Turanov, 2004). The nuclear energy industry was unable to address issues like future uranium supply, decommissioning of old NPPs and safe long-term storage of spent nuclear fuel (Kudrik et al., 2004). There was an accumulated lack of investment. Considering the failure of Minatom’s leaders to initiate major changes, reform and structural change would obviously also require new leaders.

Adamov left Minatom in 2001 after a State Duma anti-corruption investigation concluded that he had breached the law (RFE/RL, 2001b). He and three subordinates were later convicted of fraud, and Adamov was charged with embezzlement in the US (Lenta.ru, 2008; Sokovnin, 2008; Sergeev and Sokovnin, 2011). Adamov’s successor at Minatom was Aleksandr Rumyantsev (2001–5). Putin tasked him with regaining control over Minatom’s considerable cash flows (Leskov, 2006), that is, make its rent streams available to the state. However, Rumyantsev was close to Konovalov (Belyaninov, 2001) and did not stand up to vested interests in the sector (Leskov, 2006). In spite of declarations to the contrary, reform was quietly postponed (Galiev and Khisamov, 2001; Khripunov, 2001, p.57).

The nuclear energy industry and its rent streams remained outside central state control and were vulnerable to creeping privatisation in the struggle among elites. In 2003, the Russian–Georgian businessman Kakha Bendukidze attempted to gain control over Atomstroieksport by taking a stake in the partly privatised company Atomenergoeksport (Aleksandrov, Yu., 2004; Pappe and Drankina, 2007). When Putin and Minatom became aware of this, Bendukidze was pressured out of business in Russia. Gazprombank acquired his stakes (Aleksandrov, Yu., 2004; Pappe and Drankina, 2007). In the state’s effort to regain control, Minatom lost its supra-ministerial powers and became a Federal Agency for
Nuclear Energy early in 2004. It lost policymaking powers and was placed organisationally directly under the new Energy and Industry Ministry, established as part of a government reform. Some of its powers and its direct participation in policymaking were restored in July, but Rosatom, as it was now known, remained a second-tier organisation (Kudrik et al., 2004, p.27).

But with economic growth and growing demand for electricity, it remained a government priority to gain access to the nuclear energy industry and restructure it in support of expansion. According to forecasters, the rise in demand would continue, and not be easily met by oil- and gas-fired thermal plants. Prices in the Russian electricity market were regulated, while the export market for gas and oil was now highly profitable. There was much to gain from less reliance on gas-fired plants (Nigmatulin and Nigmatulin, 2006). Nuclear energy was an attractive alternative (Orlov, V., 2008; Oxenstierna, 2010, p.21; 37). NPPs already generated 16 percent of Russia’s electricity (Energeticheskaya strategiya, 2003, p.96). Existing reactors had their service lives extended. The Russian government also planned to build 26 new reactors before 2020, to cover 23 percent of electricity production.\(^{31}\) Uranium demand would almost double (Energeticheskaya strategiya, 2003, p.96).

Domestic expansion would support the export business, which relied on the home market to test innovations. Russian nuclear technology export was already a success in the growing international market. TVEL experienced a 20 percent increase in profits from international sales from 2003 to 2004 (Siluyanova and Kovalevskii, 2004). Russian nuclear fuel exports now accounted for around 17 percent of the world market, but the government

\(^{31}\) Estimates for future nuclear power production increased in the course of reform.
envisioned a 30 percent share by 2020 (Vakhmenin, 2007; Omelchenko, 2008; *Energeticheskaya strategiya*, 2009, p.69). In the eyes of Rosatom’s reformers, domestic and international concerns drove the reform (Belova, 2008; Orlov, V., 2008). Without reform, investment, manpower and uranium shortages would inhibit growth, including international growth. The government also found it necessary to control the industry through a working ‘power vertical’ (Belova, 2008). The nuclear energy industry could only develop on terms that enabled state management and control of the sector (Belova, 2008). This was emphasised by the US reactions to the construction of the Bushehr NPP in Iran (Kornysheva et al., 2006). By 2005–6, the industry itself acknowledged the urgency for reform (Kornysheva et al., 2006).

4.7 Expansion and renewal?

Uranium stockpiles and reprocessed Soviet-era warheads and spent fuel cells still made up for some of the discrepancy between Russian uranium demand and supply. Imports covered the rest. With increasing demand, imports would also have to increase. The post-Soviet region had good uranium sources close to home (*Energeticheskaya strategiya*, 2003, p.53; 58; *Energeticheskaya strategiya*, 2009, p.41) and uranium prices were already increasing (Graph 4.1). With several years needed to develop new uranium fields, and rising international demand, the Russian nuclear energy industry found itself in a new situation.

In 2002–3, relations in the nuclear energy field between Russia and Kazakhstan began to change. TVEL acquired a ‘golden share’, nominally 32 percent, of the Ulba plant in 2000 (Voskresenskii, 2000; Stulberg, 2007, p.206-208). This was subsequently converted into

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32 The golden share gave TVEL a veto over ‘unfavourable business decisions’ including closure, ownership change, management change, change of business direction and decreases in production.
an ordinary minority stake. It was a first step towards further integration. But according to Mukhtar Dzhakishev, head of Kazatomprom, it was still difficult to organise a substantial degree of cooperation between Russia and Kazakhstan until 2003–2005, because there was no political will in Russia to support a reform agenda (Grudnitskii, 2006a). Kazatomprom found Russia’s terms insufficiently advantageous, moreover (cf. Stulberg, 2007, p.177-209). Russia wanted Ulba to process uranium from Russian stockpiles, while under Kazatomprom’s plan Ulba would receive newly mined uranium from the Zarechnoe uranium wellfield (Kucherenko, 2000; Shmidke, 2006).  

Armenia’s debt to TVEL for nuclear fuel in the 1990s had long been subject to negotiation. In 2003, the debt was included in the large debt-for-equity swap with Inter RAO (pp.93-4). Ukraine, on the other hand, took steps in 2005 to limit its dependence on Russian nuclear fuel, and embarked on trials of Westinghouse fuel at the South Ukraine NPP in 2005.

4.8 Reform and new stability

When Minatom was downgraded in spring 2004, it marked the beginning of a turbulent period in the nuclear energy industry. Presidential Aide Sergei Prikhodko, an experienced trouble-shooter, was appointed chairman of TVEL’s Board of Directors in October 2004 (Chereshnev, 2004; Siluyanova and Kovalevskii, 2004). Another sign of impending change came in February 2005 when Pyotr Shchedrovitskii, advisor to the presidential envoy to the Volga Federal District, Sergei Kirienko, became director of the nuclear management institute, TsNIatominform (Antonov et al., 2005). Kirienko was appointed to head Rosatom in November 2005, where reform was clearly under way (Antonov et al., 2005;  

33 Owners from 2002: Atomredmetzoloto (RF) 45%, Kazatomprom (KZ) 45%, Kara-Balta Metallurgical Plant (KG) 10%. In 2003, Atomredmetzoloto’s share was divided between Atomredmetzoloto, TVEL and Tekhsnabeksport. Owners from 2005: Tekhsnabeksport 49%, Kazatomprom 49%, Atomredmetzoloto 1%, Kara-Balta 1%. This changed in 2010: Uranium One (Canada, 51.42% owned by ARMZ) 49.67%, Kazatomprom 49%, Kara-Balta 0.67%.

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Sergei Sobyannin, appointed head of the Presidential Administration in November 2005, was also involved and chaired TVEL’s board from May 2006 to November 2007 (Butrin et al., 2006; Melikova, 2006). That position had previously been held by a deputy minister in Minatom/Rosatom. In December 2007, Sobyanin became head of the Supervisory Board for Rosatom, the state corporation (Tovkailo, 2007).

Kirienko was the first nuclear sector top manager from outside the industry. He was a loyal state manager, and loyal to Putin, but not personally close to the president. Kirienko brought his own team to Rosatom (Koroleva, 2006). Kirienko and Sobyanin installed loyal managers from outside in crucial positions, apparently to ensure that changes to formal institutions would be followed by changes in informal constraints. Kirienko’s former deputy, Sergei Obozov, became head of Rosenergoatom before its conversion into a shareholding entity (Malkova, 2006a; Nikol'skii, 2006a). Vladimir Travin, Kirienko’s deputy at Rosatom and head of Atomenergoprom, had a nuclear sector background, but came with Kirienko from Nizhnii Novgorod (Embassy Moscow, 2007c). A few years later, Kirienko’s critics were no longer among Rosatom’s top echelons. A key reformer later remarked that people and enterprises in the wider industry should have been included during the reform (Belova, 2008, p.145), in addition to the already large team of experts from the Presidential Administration and the sector (Bovt, 2007). The wider industry was subjected to, not involved in, a reform process. The appointment of Sergei Shmatko as Energy Minister in May 2008 may have reassured industry leaders. Shmatko had a background from Rosenergoatom in the 1990s and Atomstroieksport from 2002, including Bushehr construction.
The nuclear reform was the last reform of Putin’s second term, and it was quick. By December 2006, the Duma had passed enabling legislation for a new property structure in the nuclear energy industry (Belyakov, 2006b; Federal Law No 13, 2007; Press-tsentr atomnoi energetiki i promyshlennosti, n.d.). The President signed the law in February 2007 (Emel’yanenkov, 2007a; Press-tsentr atomnoi energetiki i promyshlennosti, n.d.). It separated the military and civilian parts of the industry, although Rosatom remained the common umbrella. At the lower level, the industry became more specialised. The state’s shareholding company for the nuclear energy industry, Atomenergoprom, was established by decree in April 2007 (Emel’yanenkov, 2007c). This indicated that Putin rather than risk a lengthy discussion in the government, threw his ‘most powerful support’ behind the reform (Kornysheva, 2007a; Orlov, V., 2008). Final legislation on Rosatom as a state corporation passed the Duma quickly, in October–November 2007 (Belyakov and Sokolovskaya, 2007; Emel’yanenkov, 2007b; Vakhmenin, 2007). The urgency was underlined when the legislation projects were forwarded by the President, not the government. By early 2008, most of the new structures were in place, just in time for the presidential election.

Well into the process, key participants expected Rosatom to become a one hundred percent state-owned company (Emel’yanenkov, 2006; Malkova, 2006b; Nikol’skii, 2006b; Vaganov, 2006). The hierarchy of its subsidiaries was not clear, with three alternative hierarchies on the table (Butrin et al., 2006; Proskurnina and Nikol’skii, 2006).

In September 2007, it was announced that Rosatom would become a state corporation. Previously a rare type of organisation, the state corporation was re-invigorated by Putin in 2007 (Butler, 2008, p.310). Throughout 2007, Putin promoted it as a vehicle of state
participation in the economy (Putin, 2007). In the case of Rosatom, the organisational outcome of state corporation, which was not a state-owned company, indicated that Putin had the final say on this issue. Observers took this as proof that the state would no longer take a hands-off, commercial approach to the economy, but act as manager as well as owner (Embassy Moscow, 2007a).34 In October 2009, President Medvedev criticised state corporations because, he said, they had got out of control; no more state corporations were established (Filatova, 2009). By then, Rosatom’s organisational form was secured by stable institutions.

State corporations rested on a different institutional framework from other state companies. The organisational type allowed Rosatom to be both a holding company and a government body (Orlov, V., 2008). Uniquely among state corporations, Rosatom was endowed with the right to conclude treaties with foreign states (Butler, 2008, p.310). This institutionalised Rosatom’s practice of entering into relationships with other states on nuclear matters without the MFA’s knowledge, as happened with Burma in 2007 (Embassy Moscow, 2007d). Central state control and coordination were undermined also in Rosatom’s new institutional framework.

State corporations were subject to less public oversight, mandatory transparency and budgetary control than other state companies. They were ‘non-state, non-private, administrative-commercial entities’ (Krasavin, 2007), with considerable freedom to dispose of their means through non-commercial funds. Rosatom’s Supervisory Board controlled the state corporation’s primary funds and four reserve funds that were intended to function as guarantee and collateral for all Rosatom’s subsidiaries (Malkova and

34 Other state corporations were Vneshekonombank (foreign investment bank), Rosnano (to develop a nanotechnology industry, a shareholding company from 2010), Rostekhnologii (to develop advanced technology), Olimpstroy (The 2014 Olympic games in Sochi), and the Corporation for housing reform.
Mazneva, 2007). Resources transferred from the state budget to state corporations ceased to belong to the state and were at the state corporations’ disposal, as were any profits (Krasavin, 2007), making them a channel for rents in their own right. The boundaries of the state remained blurred, and this benefited Rosatom. The arrangement also enabled cross-subsidisation among Rosatom subsidiaries, with profitable activities subsidising loss-making ones (Cooper, 2013, p.59-60). In effect, soft budget constraints returned to the industry, as state corporations could not be bankrupted. Loss-making entities would be sustained on rents.

State corporations were also exempt from many of the usual state enforcement and oversight mechanisms and requirements of mandatory disclosure of information (e.g. on suspicion of money laundering, etc.) that applied to other state controlled entities. In particular, state corporations were exempt from audits by the Audit Chamber (Krasavin, 2007), and were only required to report to it annually. Rosatom was overseen by its own supervisory board, with members appointed by the president (Federal Law No 317, 2007). The supervisory board and the general director had more independence from the state than did state-owned shareholding companies. State corporations could attract private investors in public–private partnerships. A lack of transparency was now institutionalised.

The crucial advantage of organising Rosatom as a state corporation seemed to be in maintaining management control of Atomenergoprom and preventing it from operating autonomously of Rosatom. Rosatom was the first state organisation – apart from the Ministry for State Property, Rosimushchestvo – to hold state-controlled companies as state property (Kornysheva, 2007a). It gave Rosatom greater control over subsidiaries. At the same time, it functioned as a ministry, performing regulatory and budget tasks. Subsidiary
holding companies, like Atomenergoprom, were protected from privatisation by the new strategic sectors law that restricted private, especially foreign, investment in sectors like the electricity grid, subsoil companies and the nuclear industry (Federal Law No 57, 2008; Heath, 2009). For practical purposes, the dividing line between Atomenergoprom and Rosatom was thin. They were both housed in the old ministry building and responding to outside inquiries, also by this author, seemed to function as an integrated entity, at least in 2009.

From a government perspective, it was an efficient setup. With Atomenergoprom a wholly state-owned shareholding company, government control further down in the hierarchy was secured (Emel’yanenkov, 2007c). As observed by Belova, one wanted to avoid a situation in which

the whole holding company [кhozyaistvuyushchii sub”ekt] Atomenergoprom would start living a life of its own, and problems connected to e.g. nuclear radiation safety, or a lack of unified, coordinated management would have negative consequences for the development of all parts of the nuclear industry. (Belova, 2008, p.146)

Indeed, Rosatom’s subsidiaries did what they could to retain some autonomy and resist change. In November 2006, the long-standing rivals, TVEL and Tekhsnabeksport, formed a JV, the Uranium Mining Company (UGRK), intended to become Rosatom’s uranium mining subsidiary (Butrin et al., 2006; Kornysheva, 2006b; 2006a). It was a non-starter. There were licensing problems, perhaps compounded by unwillingness in Rosatom to allow an audit of the involved assets (Yur’eva, 2007). Importantly, UGRK did not fit into Rosatom’s final structure. In 2008–9, with the central organisational features in place,
Tekhsnabeksport ceded gas centrifuge production to TVEL, which incorporated the nuclear fuel cycle, while uranium assets were now wholly organised under ARMZ (Kiselev, S., 2011).

According to Kirienko, the ‘legendary Minsredmash was reconstructed, only in the new market environment’ (Emel'yanenkov, 2007b). Post-reform Rosatom incorporated several direct successors of Minsredmash entities, reorganised them, and added control of foreign trade. There were similarities, Kirienko argued, because Minsredmash had proven to be an efficient type of organisation in the Soviet Union (Orlov, V., 2008). In the nuclear energy industry, the Soviet period was the golden age, and Soviet institutions were adapted to fit Russian needs.

Rosatom’s financial relations with the government appeared unidirectional, especially during the financial crisis of 2008–9, when it received additional support from the state (Dzaguto, 2009c). This, in turn, reflected the increased capacity of the state to support the nuclear energy industry. In contrast to a decade earlier, the state also had the means to buoy up the economy through crisis. As Rosatom was now subject to less public scrutiny and state oversight than it had been as a federal agency, the channels for rent sharing between Rosatom and the state were opaque. There were opportunities for corruption, and occasionally, indications in the media that factory-level kickbacks were channelled upwards as rent (Kotlyar, 2012). But presidential control and enforcement increased, especially relative to other state organisations. Informal enforcement mechanisms seemed an important part of the institutional framework.

The complexity and vastness of Rosatom and its subsidiaries could potentially counteract external control mechanisms and deny real access to the industry. That being the case, it
would replicate the problem of an autonomous sector. However, this was unlikely to happen under Kirienko and Sobyanin. They were loyal to Putin and owed their positions to this loyalty. They were not just state managers, but Putin’s personal representatives. Energy Minister Shmatko was also loyal to Putin, and he was known also to be close to Igor Sechin (Embassy Moscow, 2008). The personal side to this loyalty was illustrated when Dmitrii Medvedev took over as president in 2008 and Sobyanin followed Putin from the Kremlin to the Cabinet. When Sobyanin ceded his place on the Board on becoming Mayor of Moscow in October 2010, Igor Shuvalov, a Board representative from the Presidential Administration and known to be close to Putin, took over as chairman. While the institutional framework had the potential to replicate sectoral autonomy, sector managers were loyal to Putin and his regime. The implementation of formal institutions strengthened by reform still depended on informal constraints.

4.9 The reassertion

4.9.1 Kazakhstan

After Rosatom was recreated as a market version of Minsredmash, Russia made it a foreign policy priority to revive as much as possible of the old Minsredmash structures (Belkina, 2006). Kirienko’s vision was to integrate the nuclear sectors in Russia, Kazakhstan and Ukraine in a vertically integrated holding company (Yermukanov, 2006). Kazakhstan was at this point more positive towards Russia than was Ukraine.

A strategic nuclear energy partnership between Russia and Kazakhstan was established in 2006. Kazakhstan was now an attractive uranium supplier and Russia only one of several rivals for partnership (Vinokurov, 2007; Muzalevsky, 2010). Kazakhstan had developed relations with Japan (RFE/RL, 2007b; 2007c; Sergeev, M., 2007a; WNA, 2011e), Canada
and France (Shmidke, 2006; Ibragimova, 2010). In one decade, Kazatomprom had acquired stakes in all parts of the nuclear fuel cycle (Ibragimova, 2010). Dzhakishev was careful to rebuff any suggestions that Kazatomprom competed with Rosatom (RFE/RL, 2007a).

With a strategic partnership established with Russia, Kazatomprom was willing to compromise over uranium supplies to Ulba. Production began in 2006 (Yermukanov, 2006). The same year, Tekhsnabeksport and Kazatomprom began to explore the Budenovskoe 1 and 2 wellfields, where production began in 2008 (WNA, 2011e).

Kazakhstan also planned to develop nuclear power production jointly with Atomstroieksport (WNA, 2011e). The project, planned from 2006, failed to take off until 2009. This was apparently due to funding problems, but possibly also to Russian reluctance to share intellectual property rights (WNA, 2011e; Kazatomprom, 2015).

The International Uranium Enrichment Centre (IUEC), set up in 2006–7, completed the expansion of bilateral nuclear energy ties. Strongly promoted by Putin (Blagov, 2007a), it was a JV between Russia and Kazakhstan, but was open to other states. Initially, the cooperation included plans for a joint Tekhsnabeksport–Kazatomprom enrichment facility next to the IUEC, but this was later decided to be uneconomic (RFE/RL, 2007d; WNA, 2011e). The IUEC, in particular, targeted Iran’s pursuit of nuclear energy (Rykovanova, 2006; Sindelar, 2006; Loukianova, 2008), but it also served Kazakhstan’s purpose of obtaining a stake in uranium enrichment (Ibragimova, 2010, p.82). To Russia, profits also mattered (Sindelar, 2006; Torbakov, 2006). Offering a 10 percent stake to new participants, a minimum of 51 percent of the IUEC would remain with Tekhsnabeksport

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35 The IUEC is not to be confused with the IAEA–Russia not for profit nuclear fuel bank established near Angarsk in 2010, or with Kazakhstan’s proposed (2010) and projected (2013) nuclear fuel bank at Ulba.
(Kornysheva, 2007c; Ibragimova, 2010, p.82). The IUEC also held a fuel reserve for members of the International Atomic Energy Agency (IAEA) (WNA, 2011f).

In May 2009, Dzhakishev, long-serving president of Kazatomprom, was unexpectedly arrested along with eight of his deputies, on embezzlement charges connected to uranium mine JVs with foreign partners.\(^{36}\) He was replaced by Vladimir Shkolnik, former trade and industry minister with a history in the nuclear industry (Perera, 1997, p.96-98). Shkolnik was assumed to be more pro-Russian than Dzhakishev, but he upheld Kazatomprom’s ambitious expansion strategy (Pannier, 2009a; Ibragimova, 2010).\(^{37}\) After the arrest of the senior management, the decision process in Kazatomprom slowed down. It was speculated that Russia would want to reduce the position of Kazatomprom to that of a minor uranium producer instead of a well-positioned competitor to Rosatom (Embassy Astana, 2009). Dzhakishev’s arrest effectively ended the close business partnership between Kazatomprom and Canada-based Uranium One, mentioned in the charges against Dzhakishev.\(^{38}\) ARMZ subsequently acquired control of Uranium One in a series of acquisitions and equity exchanges from June 2009 to December 2010 (Seccombe, 2009; Uranium One, 2009a; 2009b; 2010; Atomredmetzoloto, 2011, p.15-17; 32-33; 36-37). It is not possible to say whether Kazatomprom’s weakened international position in the nuclear energy sector after May 2009 had anything to do with Russian influence inside Kazakh state organisations.

\(^{36}\) Dzhakishev had been cleared of similar charges in 2007.

\(^{37}\) Shkolnik was born in Russia, and his son is married to the daughter of Vadim Zhivov, then head of ARMZ (now Uranium One) and allegedly responsible for Rosatom’s contacts with Kazatomprom (Kosharnaya, 2009).

\(^{38}\) Uranium One shares traded down by a third before being suspended from the Toronto stock exchange following Dzhakishev’s arrest.
In 2011, the bilateral strategic partnership reached a second stage, with progress in both uranium exploration and nuclear power plant plans. Kazatomprom was expected to acquire a share in the enrichment plant at Novouralsk from Russia in 2011 (WNA, 2011e; 2011f).

4.9.2 Uzbekistan

On the expiration of the US-German uranium trader Nukem’s contract with Uzbekistan’s uranium-producing Navoi Mining & Metallurgy Combine (NMMC) in 2005, Uzbekistan aimed to diversify uranium sales (Faizullaev, 2009, p.29). Russia had for several years wanted to return to Uzbekistan’s uranium sector and now capitalised on its support of Uzbekistan’s repressive regime (Torbakov, 2006). In 2006, Uzbekistan and Tekhsnabeksport agreed to develop the Aktau deposit jointly (Faizullaev, 2009, p.30; WNA, 2011c). However, Uzbekistan baulked at allowing privatisation or private investment in NMMC (Faizullaev, 2009, p.29).

After ARMZ’s takeover of Uranium One, Uzbekistan’s government also held off from closer ties with Russia on nuclear energy (Faizullaev, 2009, p.30; WNA, 2011c), preferring instead ties with Japanese companies (Panfilova, 2009b).

4.9.3 Ukraine

Russia and Ukraine concluded in 2007 a cooperation protocol covering nuclear equipment, uranium exploration and fuel production (Angelova, 2008; Davydov, I., 2008). The same year, Westinghouse secured a three-year commercial contract for larger fuel deliveries from 2009 (Kurdov, 2007; Sergeev, M., 2007b; WNA, 2011d). Deliveries under the commercial contract commenced in 2010 (Energoatom, 2010). Some of the fuel was supposed to be produced from Ukrainian uranium (Ryasnoi, 2008a; 2010a). Westinghouse’s price was allegedly 10 to 30 percent higher than TVEL’s, but it was fixed
(Ivanitskaya et al., 2008; Ravinskii, 2008). TVEL’s price was determined in the annual Russian–Ukrainian negotiations on all fuel types (Gorelov, 2007c; Kornysheva, 2007b; Kornysheva and Chernovalov, 2007). Ukraine depended on fuel storage and reprocessing in Russia. Russia’s fees for this service rose considerably between 2005 and 2008. A further increase would bring TVEL’s fuel price up to Westinghouse’s level (Embassy Kyiv, 2008).

Ukraine had also developed relations with the Australian uranium company Uran Ltd (Ivzhenko, 2009b), and built up a strategic uranium reserve (Ryasnoi, 2010a). In 2009, Rosatom made progress on comprehensive cooperation contingent on increased fuel deliveries for TVEL (Ivzhenko, 2009b; Kosharnaya, 2009). This had the effect of halting progress in projects like the completion of the two final reactors at the Khmelnitskyi NPP, and its financial package in particular (Ivzhenko, 2009a). Internal Rosatom documents leaked to the Ukrainian press in 2009 indicated that Rosatom was pursuing a strategy to force Ukraine to abandon the Westinghouse supply option and agree instead to a comprehensive cooperation deal with Russia (Kosharnaya, 2009).

After Viktor Yanukovich became Ukraine’s president in January 2010, relations with Russia regarding nuclear energy improved. On a visit to Kyiv in April 2010, Putin proposed that the two states integrate their operations in the nuclear fuel cycle, nuclear machine building and power generation in one holding. This, in effect, would recreate a modern Russian–Ukrainian Minsredmash. If the suggestion was ‘too revolutionary’ for Ukraine, Putin proposed carrying out the integration ‘in stages’ (Dzaguto, 2010a; Ivzhenko, 2010). The projects under discussion had been put on hold by Yushchenko, but a joint holding company would be a further step towards integration (Emel'yanenkov, 2010;
Dzaguto, 2011b). Yanukovich was most enthusiastic towards the modernisation of Ukraine’s NPPs and developing a Ukrainian nuclear fuel assembly plant in cooperation with Russia. It would replace the Ukrtvel JV, according to Energoatom’s president, Yuriy Nedashkovskii (Ryasnoi, 2008b; Ivzhenko, 2010). Yushchenko had preferred Westinghouse, while Yanukovich now preferred to go with TVEL (Emel'yanenkov, 2010). Putin also wanted to see cooperation in nuclear machine building and uranium production, especially with regard to the Turboatom turbine factory in Kharkov and the Novokonstantinovka uranium basin (Emel'yanenkov, 2010).

Atomstroieksport and Energoatom signed a new agreement on Khmelnitskyi NPP in June 2010, and the contract was in place by February 2011 (Dzaguto, 2010b; Atomstroyeksport, 2011c). The project met with resistance in Verkhovna Rada, Ukraine’s parliament, for its non-transparency, and for constructing generation capacity in excess of demand (Ivzhenko, 2011). Russian state banks would finance a substantial part of construction at Khmelnitskyi, up to 85 percent according to Ukrainian sources (Dzaguto, 2010b). Nevertheless, effectuation of the financial package was still slow.

Ukraine joined the IUEC in October 2010 (IUEC, 2014). TVEL was also awarded the contract for Ukraine’s complete nuclear fuel supply for the remaining lifespan of all reactors, and secured the contract for Ukraine’s fuel assembly plant as agreed by the two presidents (Dzaguto, 2011c). The Ukrainian company Yadernoe Toplivo would have 50 percent plus one share, while TVEL would control the rest (Dzaguto, 2011c). The agreement provided for technology transfer, joint intellectual property rights, and a financial package from Russia equivalent to 60 percent of the fuel assembly plant’s total cost (Ryasnoi, 2010b; Ivzhenko, 2010). Implementing joint intellectual property rights
proved difficult. There was no progress on the feasibility study until the Rosatom institute GSPI became subcontractor (UNIAN, 2011) and the parties also disagreed on the terms of the financial package (Ryasnoi, 2011). Ukraine had no means of forcing Rosatom to implement agreements, so plans and projects materialised when it suited Rosatom. The delays in the fuel assembly plant project in 2010–11 suited TVEL, which had to integrate other parts of the nuclear fuel cycle into its company structure before it could maximise production based on enrichment capacity and consolidate in Ukraine (Gorbenko, 2010, p.22). In October 2011, the project was declared on time, with completion in 2015 (Shtaltovnyi, 2011). The new factory would cover half of Ukraine’s nuclear fuel demand by 2016–17.

4.9.4 Armenia

Armenia had planned to close the Metsamor NPP in 2017 and build a new plant. After a feasibility study in 2008, financed by the US government (Danielyan, 2009), a tender was announced in 2009. Rosatom and Atomstroieksport were in contact with Armenian officials over the project from 2007, starting with a visit from Kirienko (Danielyan, 2007a). Rosatom was the only potential investor with capital to spare. Armenia and Atomstroieksport set up the JV Metsamorenergoatom as owner and operator of the plant, in December 2009, and Atomstroieksport was designated contractor (Melikova, 2008; Danielyan, 2009; WNA, 2014a). Construction of the new, larger NPP was planned to commence in 2018 (ARKA News Agency, 2014b). Russia would finance much of the cost of the new NPP (Table 4.4) and the extensions to the old NPP’s service life (ARKA News Agency, 2014a). The plans were for the new NPP to export power to Georgia, Turkey (through Georgia) and, possibly, Iran, in accordance with Inter RAO’s strategic plans (Khachatrian, 2008; Danielyan, 2009). In 2008, ARMZ and Armenia also agreed on
cooperation in exploring Armenia’s uranium reserves (Table 4.2) (Avoyan, 2008; Kudrin, 2008). Exploration started in 2009 (Atomredmetzoloto, 2010, p.15) and Armenia joined the IUEC in March 2012 (IUEC, 2014).

4.9.5 Belarus

In the years 2005–8, the Baltic region had copious plans to expand its nuclear energy capacity. Russia constructed a new NPP in Kaliningrad (Table 4.3) and Lithuania considered building a new plant in collaboration with Estonia, Latvia and Poland to replace the Ignalina plant (WNA, 2011b). In 2006, Belarus began drafting separate NPP plans (Table 4.4) (Marples, 2006; WNA, 2011a), receiving offers from Atomstroieksport, Westinghouse, Areva and the China Guangdong Nuclear Power Corporation (CGNPC). Atomstroieksport’s offer was selected (Marples, 2009). For President Lukashenka, the NPP was a political project that would be justified despite considerable protests and misgivings at home, criticism from Lithuania and financial expense (Marples, 2008; 2010). A financial package was negotiated with the Russian government and Russian banks in 2007–2010. Belarus initially aimed to secure 9 billion US$ from the Russians to cover the full cost of construction. Russia offered 6 billion. If Belarus let Inter RAO have a 50 percent stake in the plant, Russia was prepared to offer more (Emel'yanenko, 2007d; Sandler, 2010). The deteriorating relationship between Russia and Belarus in 2010 delayed construction start (Marples, 2010; Atomstroyekspert, 2011b). In 2011, Belarus conditioned Gazprom’s takeover of Beltransgaz (p.263) on Russian finance for the NPP (WNA, 2014d). This facilitated a package deal with a 10 billion US$ loan from Russia, and planning could begin (Table 4.4) (Ioffe, 2011; WNA, 2015).
4.10 Conclusions

Minatom in the 1990s had extensive autonomy vis-à-vis the central state, and this situation extended into its foreign operations. The lack of mutual adaptation to facilitate access and participation in institutional development in the relations between the state and Minatom inhibited development on both sides. This status quo was sustained by informal rent sharing. The extent to which rent was channelled outside Minatom is not known. The ruling coalition under Yeltsin was integrated only loosely, and was characterised moreover by infighting. The squabble among the banks in 1995 and 1997–8 to acquire a share of the rents most likely reflected that Minatom until then retained a considerable share itself, and was not channelling its rent towards any one part of the ruling coalition. In the end, the outcome of that struggle was that Minatom continued to take care of its own rent streams and decide where they were channelled.

Until 1998, Minatom and the companies in the nuclear fuel cycle were outside state control and oversight. Other state organisations were in effect denied access to Minatom’s decision making and development. This situation could only continue with the informal support of representatives of state organisations and the ruling coalition. Its extensive autonomy allowed Minatom to disregard formal institutions and establish a de facto privilege to enter into transactions with international parties on behalf of the Russian state. Informality and personal ties were accordingly decisive in interactions between the state and Minatom in the 1990s. State capacity remained low as a result.

Thanks to informal rent streams, the industry managed to muddle through in splendid isolation. Increasingly however, this inhibited its development. The industry became ill equipped to compete internationally. Without coordination at the top state level, the
An institutional framework for international cooperation was insufficiently developed to support strategic partnerships. The experience of nuclear energy companies in this area led them to seek state support for this side of their operations. The lack of state participation in their foreign operations inhibited their commercial development. When the oil price boom and the electricity reform increased the state’s capacity to invest, also in nuclear energy, the industry was more inclined to give the state access. Expansion was a carrot for the industry during reform, and ensured support for reform.

The nuclear sector reform of 2005–7 modernised the nuclear energy industry and forged a higher degree of specialisation among its organisations. Oversight within the industry was institutionalised and implemented through Atomenergoprom. But at the top level, state oversight of Rosatom, conducted through the Supervisory Board, depended in practice on personal loyalty in a regime context. At this level, the informal mechanisms of Yeltsin’s ruling coalition were adapted to the now more developed social order, and formalised. On paper, oversight of Rosatom was an impersonal arrangement between the president and representatives of the state, but informally, personal loyalty mattered when vacancies were filled. With time, informal constraints could eventually enable implementation of formal institutions (p.42), but this would still be at the president’s discretion. The restoration of state capacity in the sector did not progress to a level where it would threaten regime stability. Oversight would therefore depend on the regime. Rosatom was no longer an autonomous organisation, but it remained less accessible and less modern than other state organisations.

The process that formed a new institutional framework for the nuclear energy industry extended to international operations, and made it possible to offer real strategic
partnerships to Kazakhstan, and make further nuclear cooperation with Ukraine contingent on a greater role for Russia. Without the necessary coordination and financial muscle, support for Armenia’s and Belarus’s nuclear energy development would have been difficult.

For the state, the reform shaped the expansion of nuclear energy operations abroad in a desirable direction, and made nuclear energy companies integral to foreign policy. The industry became directly accessible as an instrument of foreign policy, which could be applied to slow the independent technological development of Ukraine and Kazakhstan, and cultivate regional dependence on Russia for nuclear energy. In the 2000s, dependence was used as a tool of foreign policy in Kazakhstan, and in Ukraine, financial weakness and dependence on Russia for nuclear fuel were used to maximise outcomes in favour of Russia in bilateral negotiations.
5. OIL PRODUCTION: LUKOIL

The electricity and nuclear energy cases showed how general institutional developments influenced state–company interaction with regard to foreign operations and foreign policy. Informality in institutions and rent sharing, and a lack of development in the 1990s, were followed by more formalised relations, institutional change and international expansion in the 2000s. Abroad, both electricity and nuclear energy companies engaged in often profitable operations that also served as tools of the state. Lukoil is different. Oil rents have undoubtedly flowed through informal channels in Russia. But Lukoil’s relationship with the state became characterised by formalised, and increasingly indirect, institutions, and private ownership. This indirect relationship continued into the 2000s, even as increased state capacity meant a greater capacity for intervention in Lukoil’s domestic and foreign operations. Also in this rather different case, state–company interaction concerning foreign operations and foreign policy was an aspect of their interaction targeting domestic institutional development.

5.1 The break-up of the Soviet Union and Soviet legacies

Lukoil was founded by then Deputy Minister for Oil and Gas Vagit Alekperov, in 1991. Alekperov had spent most of his career in the West Siberian oilfields. He had seen oil production decline and the Soviet oil sector disintegrate as perestroika legislation empowered enterprises but failed to free prices. In 1990, Alekperov made an effort to keep the entire oil industry together in a state-owned concern, much like Viktor Chernomyrdin did with the gas industry (pp.231-2). Alekperov and Chernomyrdin knew each other from working at the Ministry for Oil and Gas. Remarkably, Alekperov also saw the international companies BP, Chevron and Agip as organisational models for the Russian oil industry
(NiK, 1999). The initial plan failed: disintegration had progressed too far. Alekperov’s second-best strategy was to create a vertically integrated\(^{39}\) company based on a section of the industry (Gustafson, 2012, p.72). Alekperov had been head of the production association\(^{40}\) Kogalym in West Siberia. With the consent of his old colleagues, he planned a loose organisation consisting of the large and modern production associations Kogalym, Langepas and Urai, with their traditional downstream partners, the oil refineries in Perm, Volgograd, Ufa and Mažeikiai.\(^{41}\) A Russian government resolution to this effect was passed in late 1991 (Government Order No 18, 1991), establishing LangepasUraiKogalymNeft, Lukoil’s predecessor.

The new Russian government was bent on furthering the disintegration of the oil industry as part of its market reforms. The formation of LangepasUraiKogalymNeft demonstrated the possibility of a vertical integration combined with autonomy from the state as an alternative to horizontal and vertical disintegration along with immediate privatisation (Gustafson, 2012, p.104-107). By 1992, key members of the government, in particular First Deputy Prime Minister (from June Prime Minister) Egor Gaidar and Deputy Prime Minister Anatolii Chubais were convinced that further disintegration and privatisation would bring chaos to the oil industry (Gustafson, 2012, p.71-72). Alekperov, who left government for LangepasUraiKogalymNeft in 1992, and other oil managers remained in close contact with the government. The appointment of Chernomyrdin as deputy prime

\(^{39}\) In the petroleum industry, a vertically integrated company has control of its upstream and downstream, from oilfield to market, and also holds internal oilfield exploration and production services. ‘Upstream’ means exploration and production activities, while ‘downstream’ usually includes refining of crude oil and sales and distribution of gas and products derived from crude oil. ‘Midstream’ is sometimes used for storage and transport. Here, only the two former terms are used and ‘midstream’ seen as part of downstream activities.

\(^{40}\) Production associations formed the operational level in the Soviet oil industry. A production association could be comprised of one or more fields, with often quite substantial production.

\(^{41}\) Mažeikiu dropped out of the project when it became clear that the Soviet Union would break up, and the refinery became Lithuanian property. It did not figure in the government resolution. Ufa did not remain with Lukoil after it became vertically integrated in 1993.
minister with special responsibility for the fuel and energy complex in late May signified a priority on reintegration and the creation of viable, vertically integrated structures in the oil industry. A November decree institutionalised the emerging structure of the oil industry (Decree No 1403, 1992). LUKoil (here Lukoil) and two other vertically integrated companies were authorised and would remain at least 45 percent state owned for the following three years (Decree No 1403, 1992). Disintegration from below became more difficult.

Lukoil appeared as the result of individual agency, especially Alekperov’s. Existing constraints on the oil industry crumbled under perestroika. Alekperov was better informed than many others, and occupied a central position in Moscow. He and his peers responded to uncertainty by acting on self-interest to prevent the industry from disintegrating further. The most vital parts of the Soviet industry were moulded into new structures, taking Western companies as models. Faced with crisis, Alekperov adapted his goals, used his government access for what it was worth, and settled for a concern composed of only parts of the industry. Along with other oil managers, he kept in close contact with the government’s young reformers, who had no experience with the oil sector. Alekperov insisted on participating in the industry’s institutional development.

5.2 Keeping afloat: a new beginning

Alekperov remained head of Lukoil throughout the period under study. He and other Lukoil managers maintained close contact with a former Langepas colleague, Yurii Shafranik, Fuel and Energy Minister in the first Chernomyrdin government (1992–6). Alekperov wielded considerable influence over the oil sector reform of the early 1990s

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42 Yukos and Surgutneftegaz were the two others.
By participating in the development of a formal institutional framework for the oil sector, Alekperov made sure that key legislative acts and regulations for oil sector development and privatisation were particularly suited to the needs of Lukoil, a pioneer in the sector. This applied to privatisation auctions in 1994 (Gustafson, 2012, p.115), and the decree that allowed oil companies to convert into single stock companies (Decree No 327, 1995; NiK, 2011f). Lukoil’s close relations with the state went to the highest levels. It secured tax exemptions worth more than one trillion rubles by 1995 (OECD, 1995, p.46, quoted in Easter, 2012, p.67 fn.67). In return, Alekperov supported Yeltsin against political challengers, and canvassed for him in Tyumen, an oil region, in the 1996 presidential election campaign (Davydov, A., 1996; RFE/RL, 1996). It was an open secret that the tax exemptions had been granted, in an act of discretionary regulation (p.50), in return for support for Yeltsin.

Institutional development allowed Lukoil and other companies to grow. Private ownership proliferated throughout the oil sector. Lukoil was privatised early (1994), with the state retaining a minority stake (Table 5.1). Lukoil was the first oil company to convert holdings into a single stock (1995–7), expand into international stock markets (1997) and attract a foreign shareholder, ARCO. It was also the first Russian company to open its own petrol stations. It acquired another vertically integrated oil company, KomiTEK, in 1999, the first acquisition of its kind in Russia (NiK, 2004q; 2004l; 2006a). Lukoil was a giant among Russian oil companies. Its original production was around 14 percent of Russia’s total production and it consolidated ahead of the others. Lukoil’s development went hand in hand with the process of creating institutions for the oil industry.
5.3 Collapse of the Soviet Union: New opportunities for oil companies

The disintegration of the Soviet Union had two major consequences for the oil industry. The loss of Soviet home markets and reliance on transit to reach global markets applied to all industries. The impact on the oil industry had a further dimension, since oil was a competitive commodity. The 1990s brought fierce competition for market access to the oil industry, not paralysis and stagnation. The second consequence came in the form of an opportunity – one that Lukoil’s management were quick to grasp. Soviet priorities in resource development promoted Russian petroleum production while much non-Russian hydrocarbon development was put on hold. This no longer applied. At different speeds, post-Soviet governments opened new regions to the international oil industry.

Alekperov knew all the likely producing regions from his time at the Soviet Ministry for Oil and Gas (Romanova, L., 1999b). He cultivated ties with post-Soviet presidents (Upstream, 1998a) and obtained licences in Azerbaijan, Kazakhstan, Iraq, Egypt and Uzbekistan. Chernomyrdin supported Lukoil’s international expansion. The government put its weight behind Lukoil when it mattered, as in Lukoil’s relations with Kazakhstan and other post-Soviet states (Burchilina, 1995; Ivanov, A., 1997; Narzikulov, 1997). Lukoil did not hesitate to act independently of official Russian foreign policy where its economic interests were concerned (Tutushkin, 1996a). This applied in particular to the issue of delimitation of the Caspian Sea.

The MFA’s Caspian policy was to wait for an agreement between all the littoral states and then develop the Sea’s resources jointly (Cockburn, 1994; Aleksandrovich, 2000). To conform with this policy, Lukoil would have to refrain from competing in Azerbaijan’s and Kazakhstan’s offshore zones, now open to international companies. But Lukoil set its own
rules in the Caspian, leading the way in developing the de facto national zones. Government implementation of the official foreign policy line was fragmented. Lukoil had support from Chernomyrdin and Shafranik (Cockburn, 1994; Smirnov, A., 1995; Tutushkin, 1995; Vardul’, 1995; Aleksandrovich, 2000). One industry observer remarked that Lukoil and the Fuel and Energy Ministry ‘tried to establish their policy [as regard the Caspian shelf] based on economic interests’ at a time when there was little official interest in much else, and what there was, was based on ‘abstract geopolitical daydreams’ (Aleksandrovich, 2001). Lukoil was among a handful of international Russian businesses. The MFA was on the side lines of Russia’s actual engagement in the Caspian Sea.

Fragmentation of central state organisations and the elite made it difficult for the state to influence Lukoil’s post-Soviet operations abroad. The state had little capacity to interfere with or influence Lukoil’s foreign operations (Tutushkin, 1999). Lukoil enjoyed a measure of independence abroad, with clearly discernible support from parts of the government.

5.3.1 Lukoil’s upstream operations in the post-Soviet region

Azerbaijan opened its well-explored shelf to foreign investment earlier than other Caspian states. Azeri-Chirag-Gunesli (ACG), a giant field estimated to hold around 700 million tonnes of oil, opened first. In September 1994, a production sharing agreement (PSA) awarded ACG to an international, Western-dominated consortium, the Azerbaijan International Operating Company (AIOC). It was called ‘the deal of the century’. Lukoil was well placed to seize the opportunity. Azerbaijan initially held 30 percent of ACG, but ceded 10 percent to Lukoil early on (Fuller, 1995).

43 See fn. 39 above.
Lukoil entered the project at a time when the MFA was especially negative to Russian participation in Caspian development (Cockburn, 1994). The official Russian line on transportation of ACG oil to global markets was to get the parties to use Russian routes or risk Russia’s participation. Lukoil’s share in AIOC persuaded the consortium to choose a Russian route for early oil, which was exported out of Novorossiisk. Alekperov saw this as positive for Russia in both economic and geopolitical terms (Tutushkin, 1999). Transit through this route (Baku-Novorossiisk) continued at a moderate level of 1.5-2.5 million tpa after the opening of ACG’s primary export pipeline, the BTC pipeline from Baku via Tbilisi to Ceyhan in Turkey.

Kazakhstan’s government released licences more slowly than Azerbaijan, but Lukoil was again in a good position to participate in the development of the fields. In 1995, Lukoil obtained a frame agreement and a 50 percent stake in the Kumkol oil field (Stalker, 1995a), with considerable support from the Russian government (Vardul', 1995). Strong support from the Russian government also resulted in invitations to Lukoil to participate at the giant Tengiz field (Burchilina, 1995). Lukoil joined the transport consortium (the Caspian Pipeline Consortium, CPC) in 1996 and the production consortium (TengizChevroil) in 1997. Lukoil’s participation turned the complicated project in Russia’s favour (Tutushkin, 1999). Lukoil was among a handful of companies that defined Russia’s interests in Kazakhstan (Table 5.4) (Shumilin, 1997). It was also interested in developing production in Uzbekistan (Novolodskaya, 2001), but there, foreign companies found it almost impossible to operate before 2001 due to unfavourable PSA legislation (NiK, 2002d).
5.3.2 Lukoil’s downstream operations in the post-Soviet region

Russia’s western neighbours were central to Lukoil’s expansion of downstream activities and market access. Lukoil’s downstream activities in the post-Soviet region soon included petrol stations, refining and petrochemicals.

Ukraine was a particularly important market and transit state. Alekperov had been interested from the beginning in acquiring one of its large oil refineries (Gavrish and Lysova, 1999). When Ukraine privatised its refineries in the late 1990s, Russian companies were well prepared. They had consolidated production and were developing their downstream sectors (Tutushkin, 1999; Balmaceda, 2008, p.60). Lukoil’s position was particularly good, given the strong support of the Russian government (Razumovskii, 1998). Alekperov wielded considerable influence in Ukraine as well. During Leonid Kuchma’s presidencies (1994–2005), he was one of the Russian businessmen with closest ties to the leading figures in the Ukrainian executive (Moskovskii Komsomolets, 1998; Vandenko, 1999; Timoshchenko, 2001; Kommersant, 2004a).

In 1999, Lukoil acquired 51 percent of the Odesa refinery, Ukraine’s fourth largest, for which it paid 7.9 million US$ plus 41.2 million US$ in promised investments and debt relief, while guaranteeing a minimum workload (Gavrish and Lysova, 1999). Not long after, the Ukrainian government accused Lukoil of breaching these terms, and raised the issue with the Russian government (Shiryaev, 1999). The Russian government could not, or would not interfere in the company’s operations in Ukraine. In 2000, Lukoil acquired full control of the refinery (NiK, 2004e).

While Ukraine was the most important downstream country, Lukoil also exported oil via Belarus and from Baltic ports. In Belarus it awaited privatisation in the refinery sector.
(Naftan and Mozyr). Alekperov’s wish list for the 1990s with regard to Lithuania and Latvia included a stake in the Mažeikiu refinery and in one of the two main oil ports, Klaipėda or Ventspils (Kommersant, 1996).

When Lukoil was founded it enjoyed close ties with the government, and positioned itself in the market as a Russian company first and foremost. In the 1990s, Lukoil was the flagship of the Russian oil industry abroad (Stolyarov, 1999) and a giant at home. Good relations with the Russian government helped the company to develop. This was complemented by a considerable effort to stay on good terms with host governments in the post-Soviet region. Lukoil’s good relations with the Russian state also shielded it from the predictable criticism it received from e.g. Duma politicians for investing abroad while industrial capacity in Russia was under-utilised. Investment abroad had become synonymous with the exodus of capital, and Russian companies often bought rundown plants abroad. Lukoil stood out because it had plans to modernise and expand its foreign operations. The company’s institutional framework at home, secured in frequent formal and informal interaction with Russian state organisations, shielded it from allegations of capital flight and lack of investment in Russia. This was all the more important as there were important push-factors in Lukoil’s pursuit of opportunities abroad. As Alekperov admitted, in the 1990s international growth also minimised the negative effects of the unpredictable and complicated tax regime in Russia (Tutushkin, 1999).

5.4 Financial crisis and reform

The tax system was a brake on economic development. It was at the core of the crisis of the Russian state in the 1990s. The patchwork of old and new regulations, often mutually contradictory, was complicated by arbitrary, exorbitant rates decreed at the federal level,
and local and regional demands for services over and above the formal tax burden. Most companies would have gone bankrupt if they had paid all their taxes, so they therefore tended to conceal profits in legal and semi-legal ways. Mutual offsets and negotiations over actual tax payments emerged as an informal solution (Easter, 2012, p.114-116). The state in the 1990s collected only about half of projected revenue from the sector (Luong and Weinthal, 2004, p.140).

When on 17 August 1998 the Russian government devalued the ruble and defaulted on its debts, oil prices had been falling for a year. In the double crisis of oil prices and state capacity, there were several confrontations over oil taxation between the oil companies and the governments of Evgenii Primakov (1998–9), Sergei Stepashin (1999) and Vladimir Putin (1999–2000) (Gustafson, 2012, p.261). The state was unable to access much of the rents from oil production. The oil industry boosted production during the crisis, following several years of declining output (Gustafson, 2012, p.188-192). From 1999, oil production increased. The devaluated ruble and rising global prices for oil combined to make oil export particularly profitable. Russia experienced a genuine oil price boom.

Alekperov was now one of the sector’s most influential executives. His opinion mattered at the highest level of the state (RFE/RL, 1996; Lysova, 1999). Energy Minister Viktor Kalyuzhnyi (1999–2000) was particularly close to Lukoil (pp.199-200) (Ivanov, 1999). The state’s minority stake institutionalised formal interaction with Lukoil. But the management also prioritised participation in economic development. It responded to requests for societal stabilisation. When domestic oil prices surged in 1999, Lukoil acquiesced to government requests to limit exports (Boiko, 1999; Lysova, 1999). Alekperov often professed that his main duty was towards the state, ‘the Fatherland’, and
to ‘fulfil the tasks that a company should resolve’ (NiK, 1999). Lukoil’s staff and shareholders were his other priorities. But his sense of duty went together with a preference for indirect relations between the state and oil companies. Alekperov openly rejected suggestions of direct state ownership and management of the oil industry (Romanova and San'ko, 1999).

Alekperov responded carefully to demands for greater state control over Lukoil. In autumn 1999, Putin, recently appointed prime minister, and the Ministry for Federal Property, considered establishing a golden share\(^{44}\) in Lukoil and other partially state-owned oil companies so as to gain direct influence over management decisions (Vedomosti, 1999a). It offered to restore direct state control of Lukoil in a concession-style arrangement (pp.49-51). Alekperov replied, just ahead of Duma elections, that he was willing to consider the proposal, depending on what he was offered in return. An appropriate compensation for weaker property rights, he suggested in an interview with the independent *Novaya gazeta* newspaper, was guaranteed standing orders from several large state organisations (Stolyarov, 1999). When he was asked for his opinion about state ownership in general, Alekperov said he would be interested in managing state shares in smaller oil companies (Stolyarov, 1999). In short, Lukoil was willing to have a closer relationship with the state, but concessions also had their costs. In the interview Alekperov made his terms public. In the event, neither the golden share, nor Lukoil’s prospected management of state-held shares materialised. In the 1999 elections, Alekperov supported Fatherland – All Russia (OVR), led by Yurii Luzhkov, Evgenii Primakov and Vladimir Yakovlev. Well ahead of

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\(^{44}\) With a government prerogative to veto important management decisions, have a designated place on the Board, and access all internal documents.
polling day, it appeared a pretty safe bet. Primakov was a better choice than candidates with plans to increase the state’s control of the oil sector.

By 2000, Lukoil was one of the world’s largest private oil companies by reserves and production (Tutushkin, 1996a; Lukoil, 2000; 2001, p.10; 2004, p.13). By 2002, it was the Russian company with the largest annual turnover irrespective of sector (Lukoil, 2003). It emerged from the financial crisis as one of the five most profitable companies in the Russian oil and gas sector (Meshcherin, 2011a). Lukoil’s management had always aimed at turning it into a truly international company (NGV, 2006a). Now, their aim was to turn it into a Russian ExxonMobil (Golubkova et al., 2007).

5.5 A new approach to the post-Soviet region

In June 2000, Alekperov published an op-ed in Izvestiya on, among other things (p.161), the place of the post-Soviet region and eastern Europe in Russia’s energy strategy (Alekperov, 2000). In his view, Russia could, and should, return to these regions only as an investor. What Russian energy companies needed to do was to pursue investment programmes before the arrival of Western companies. The post-Soviet region was united by language, mentality, and a multitude of ties, he maintained. In effect, it was the basis of a new economic system that could ‘speak like an equal to other transnational blocs’ (Alekperov, 2000). He urged the Russian government to support energy companies like Lukoil in the post-Soviet region, just like the US government supported American corporations.

On the question of the status of the Caspian Sea, Lukoil’s line gradually became Russia’s official policy, a process that was completed by 2001 (Shumilin, 1997; Upstream, 1997;
Russia began to engage Kazakhstan and Azerbaijan in a process of border delimitation in the Caspian Sea.

Lukoil’s new projects in Azerbaijan were not a commercial success, like most of the projects that followed the ‘deal of the century’. ACG and the giant gas project Shah Deniz were exceptions in a region where the geological risks were abundant. Kazakhstan was more promising. In 1996, President Nursultan Nazarbaev agreed in principle to reserve around 20 percent of operations on the Kazakhstan shelf to Lukoil (Tutushkin, 1996b). After Russia’s policy change regarding the Caspian Sea, by 2002 Russia and Kazakhstan completed the delimitation of cross-border hydrocarbon fields on the shelf. This released several new projects. Lukoil’s projects in Kazakhstan grew from five in 1997 to nine in 2004, and 13 in 2010 (Table 5.4) (Kravets, M., 2004), even as it lost one licence after the border agreement (Upstream, 1998b). Two cross-border fields were awarded to Russia, but with joint exploration. Lukoil was designated Russia’s entrusted company; KazMunaiGaz was in charge on Kazakhstan’s side (Glumskov and Skorobogat’ko, 2003; NiK, 2011l).

Uzbekistan introduced new legislation in 2001 to attract oil and gas companies (Makarkin, 2008a). In May, President Islam Karimov met Putin and invited Russian companies to participate in developing Uzbekistan’s hydrocarbon sector. Two months later, Lukoil signed a joint PSA with the Russian gas company Itera and Uzbekneftegaz to explore and develop three large gas fields: Kandym, Khauzak and Shady (NiK, 2002d). Also in this case, Lukoil was Russia’s flagship abroad.

Privatisation programmes in Ukraine opened for substantial Russian ownership in many sectors. By 2002, Russian companies controlled three of the six Ukrainian oil refineries, three quarters of the market for oil products, and were also strong in petrochemicals.
(Kommersant, 2002). Lukoil invested in petrochemicals and established Lukor, a JV with the Ukrainian government in 2000 (Rybal'chenko, 2001). There was considerable uncertainty around the company’s privatisation, and Lukoil’s property rights remained weakly protected. However, until the end of Kuchma’s presidency (2004), Alekperov could counter attacks by talking to him and promising additional investments. He would thus dispel any claims Ukraine might be considering against Lukoil (Gorelov, 2001a; Razumovskii, 2001; NiK, 2004e).


Lukoil received government support abroad, especially in Uzbekistan, and by 2001 also in Azerbaijan and Kazakhstan. Its engagement in the post-Soviet region and position in the Caspian Sea had given Lukoil a say in Russian foreign policymaking. This was to its own advantage, as well, especially in Kazakhstan. But in return it had to go along with the wishes of the state concerning its opportunities for development abroad. The Russian government limited Lukoil’s range of export options by sanctioning Transneft’s reduced support for export through Baltic ports. The state was now in a better position to regulate market access (p.9) for Lukoil. Lukoil chose to take downstream control of other routes, in contrast to Yukos, which was not inclined to toe the government’s line. But in and around the Caspian Sea, Lukoil’s status as the major Russian oil company with well-developed
international operations gave it an advantage. After the change in Russian foreign policy, Lukoil was ready to benefit.

5.6 The new coalition

Relations between oil companies and the government changed with the ascent of Vladimir Putin in 1999–2000. The overtures to establish golden shares in Lukoil and other companies indicated a preference for greater state control. In his 2000 presidential election campaign, Putin stated his intention to keep all ‘oligarchs’ equally distant from the Kremlin. It was a popular policy, in promising to reduce the considerable political influence of certain businessmen, in particular Berezovskii (a joint owner of the oil company Sibneft), in the years 1995–99 (cf. Fortescue, 2006, p.101-111). Putin’s main aim, however, was to make oil companies pay their taxes in full (Gustafson, 2012, p.260-262). After his inauguration in May, he and Finance Minister Aleksei Kudrin initiated a campaign to recover taxes, in effect, to capture oil rents for the state budget (Gustafson, 2012, p.260-262). The state would now strengthen its weakest spot, resource extraction through taxation.

Alekperov’s Izvestiya op-ed appeared in June 2000. His views on foreign energy policy concluded a discussion of the relationship between the state and business, which he found far from optimal. He criticised the oligarchs’ influence on the state, but he also chastised a common view among state officials, that private interests by their very nature were antithetical to state interests (Alekperov, 2000). In particular, he criticised the taxation system, which made investment difficult and tax compliance costly. He called for structural reforms, encompassing legislation, taxation, banking and land ownership regulations, to improve the business climate, in effect, better institutions and less
personalised relations between state and business representatives. In Alekperov’s view, the oligarchs would have less influence if the state carried out structural reform, and opened for real dialogue with business leaders.

But Alekperov was vulnerable, too. Ahead of the annual general meeting in June 2000, the government nominated eleven candidates for Lukoil’s eleven-member Board. The state’s stake was around 16 percent at the time. Its list of eleven candidates was taken as a political signal (Tutushkin, 2000). Alekperov’s Izvestiya article seemed to be part of Lukoil’s response. While Lukoil’s management persuaded the government to nominate only two candidates (Tutushkin, 2000), at the meeting it also managed to change Lukoil’s statutes, making it more difficult to remove the company’s president before his term expired. The presidential term was extended from two years to five, and the right to hire senior staff transferred from the Board Chairman to Lukoil’s president (Tutushkin, 2000).

Table 5.3 shows how the Board was reduced from 13 members to eleven, at the expense of management representatives. Independent board members, in particular foreigners, were important as a cushion against government influence. In 2005, after the state sold its last remaining stake in Lukoil, the members of the Board regained their influence over business decisions (Vedomosti, 2005).

A few weeks later, Lukoil, Alekperov personally, and Lukoil’s chief accountant, were indicted for tax evasion. It was a warning shot, according to some observes, to dissuade Lukoil from taking part in the imminent privatisation of ONAKO, a state-owned company with a refinery that would fit Lukoil’s profile. Lukoil and Yukos had just announced joint plans to bid for ONAKO (Khartukov, 2000). Whatever the ulterior motives (and Lukoil did not participate in the ONAKO auction), the indictment showed that no company, not even
Lukoil, was above the (tax) law. It also showed that Putin and Kudrin meant business with their tax recovery campaign. The allegations against Alekperov were withdrawn after he requested, and was granted, an immediate meeting with Putin (Igorev et al., 2000, Jensen, D., 2000, Heil, 2008). Most of the charges against Lukoil were later thrown out by the court (Kommersant-Vlast', 2002). When major businessmen met Putin in late July at their first plenary meeting (‘oligarch meeting’), Putin refused to back down on taxation (Germanovich, 2000; Gustafson, 2012, p.262; 564). Regular meetings later improved the state–business dialogue somewhat, alleviating fears of re-nationalisation (Smirnov, K., 2002a). The meetings institutionalised and formalised involvement with the state, but also limited contact and business influence. This was precisely what the government had intended. Compared to Yeltsin’s frequent meetings with prominent businessmen under four eyes, dealings were now less arbitrary and personal. State–business interaction also changed at a more fundamental level, as the state prepared to enforce legislation and increase its capacity.

Over the following year, the government drafted a new taxation system for natural resources. There was little consultation with oil companies, but the government started from a draft proposed by Yukos (Yermakov, 2001, cited in Gustafson, 2012, p.264). The legislation passed the Duma, with considerable opposition, in the summer of 2001 (Lyapunova, 2001; Sidorov, 2001; Gustafson, 2012, p.263-266). The new system, effective from 1 January 2002, introduced a new consolidated production tax (NDPI). It was tied to the export price and therefore difficult to manipulate (Gustafson, 2012, p.264). It became impossible to make deductions, including deductions for investments, from the tax on profit (Konoplyanik, 2001). A commission, chaired by Kudrin, determined rates in accordance with oil price changes (Gustafson, 2012, p.265). The final version of another
oil tax, a tax on additional incomes (popularly called super profits), remained under elaboration (Konoplyanik, 2001). The new system was simple. It enabled the state to access rents from oil production to the extent desired by the government. State representatives considered its considerable negative effects on investment and sector development to be of secondary importance (Bradshaw, 2012, p.208-209).

In 2000–2002, Lukoil adopted a studiously neutral, almost passive, position in domestic politics. The first sign came in autumn 2000, when Lukoil, as the only major company, refused a seat on the new presidium of the Russian Union of Industrialists and Entrepreneurs (RUIE) (Pravosudov, 2000). Alekperov kept his distance from the political elite. His previous political preferences, in particular his ties to Chernomyrdin and support for OVR and Primakov, were a liability (Jensen, D., 2000; NiK, 2004).

Lukoil also remained at arm’s length from state-owned companies. A strategic partnership with Gazprom, started in 1999, naturally included some cooperation, but it was intensified only in 2002, by which time Lukoil’s relations with Rosneft had also begun to thaw. Alekperov may have wanted to see first how relations between the Yeltsin-era elite, influential in Gazprom, and the new Petersburg people in the ascendant at Rosneft, developed (NiK, 2003f). By mid-2002, it was clear that the new members of the elite would remain.

On several occasions in Putin’s first term, Lukoil was in conflict with Transneft. The company reduced its reliance on Transneft’s pipelines, not least by opening the temporary export terminal Varandei on the Barents Sea coast, in 2001. It was served by its own, non-Transneft, pipeline. Lukoil had another plan for a non-Transneft route, the Murmansk pipeline, but this fell through (p.208). In 2003, Alekperov suggested that Transneft’s
pipeline monopoly could be abolished (Alekperov, 2003; Bolshoi biznes, 2003). Lukoil’s management was impatient with Transneft’s lack of progress in providing sufficient pipeline capacity (Tutushkin, 2003; Zagorodnaya, 2003; Vin’kov et al., 2004; Yakovleva-Ustinova, 2004). Export through Varandei gradually expanded and Lukoil opened a permanent terminal there in 2008 (Lukoil-Trans, 2014). This was in contradiction to government policy, which was neatly summed up by First Deputy Prime Minister Sergei Ivanov who insisted that Russia had ‘one legal [crude oil] port – Vysotsk’ (Sivakov and Vin’kov, 2007). Lukoil established its own export terminal for oil products at Vysotsk. Opened in 2004 and supplied by rail, it initially served as a crude oil terminal (NiK, 2011f). Criticising Transneft and developing an independent export capacity were both politically risky ventures. Lukoil was otherwise loyal to the state, but prioritised business development whenever possible. It helped that Varandei served fields located far from Transneft’s pipeline network.

There were visible continuities in Lukoil’s relationship with the state in the 1990s and 2000s. Lukoil was always close to the government and leading state representatives. Under Yeltsin, such relations were personal and non-transparent. Alekperov’s longstanding relations with key government figures were an advantage. In the early 2000s, Lukoil had a mixed approach to state organisations and preferred to keep its distance, especially from state-owned companies. Lukoil’s management modified the terms of access and participation that applied to the state to protect the property rights in Lukoil. State–Lukoil relations grew more distanced by the state’s new approach under Putin. The state became unambiguously more powerful than oil companies, which it now kept at arm’s length, especially in taxation. Interaction was now based on formal procedures, compliance and plenary business meetings. Business associations flourished (Zudin, 2013b). For oil
companies, transparent rent collection through taxation served also to strengthen their property rights. The rising oil price, and increasing rent collection from the oil sector, enabled the state to develop capacity and infrastructural power to provide services to the population.

5.7 A foreign energy strategy

In 2002, Lukoil started a restructuring programme to increase profits and efficiency. Foreign operations played an important part. Exploration and production outside Lukoil’s traditional producing regions, and export to global markets, were set to expand. From 2001 to 2006, the number of international upstream projects increased from seven to 26 (NiK, 2002i; Lukin, 2007).

Lukoil had filled in for the absence of a coherent foreign policy towards the post-Soviet region in the 1990s. Beginning in 2000, foreign policy gradually became more coherent and more targeted towards the post-Soviet region. A new Energy Strategy made it a government priority to support Russian energy companies in world markets (Energeticheskaya strategiya, 2003, p.41-42). From Alekperov’s point of view, it was a step in the right direction. In the 1990s, Lukoil’s management had often invoked the image of the company as a pioneer. Under Putin, priorities of Russian foreign policy took precedence over Lukoil’s business interests. In return for loyalty, Lukoil enjoyed the government’s continued support to expand its international operations, particularly in the post-Soviet region. It put Lukoil’s Russianness abroad in a different light. There was no difference, Alekperov said on several occasions, between Lukoil’s interests abroad and those of the Russian state (Butrin, 2003b). They were not just words. Lukoil’s ‘state-mindedness’ (gosudarstvennoe myshlenie) was carefully emphasised when Lukoil,
naturally for a vertically integrated oil company, supported the Russian government’s resistance to the EU’s Energy Charter Treaty. ‘State-mindedness’ is also prominent in Alekperov’s writings on the Russian oil industry (Alekperov, 2009; 2011a). As far as the government stake in Lukoil was concerned, Alekperov stated that it brought a small, but tangible advantage to operations in Central Asia and the Middle East (Zagorodnaya, 2003; Vedomosti, 2005).

5.7.1 Azerbaijan

In Azerbaijan, Russian foreign policy came first. After AIOC’s choice of BTC as the main export route from ACG to global markets, Lukoil’s Investor Relations Director, Leonid Fedun, stated that Lukoil participation in BTC was a political question, and that oil from Azerbaijan and Kazakhstan should transit via Russia (Interfax, 2001). BTC was the main alternative to Russian routes. In 2001–2, as the start of BTC construction drew near, Lukoil considered acquiring a 7.5 percent stake in the transport consortium. In late 2001, the management tried to obtain government and Transneft approval of an acquisition (Butrin, 2001a; Upstream, 2001; Useinov, 2002). It would be contrary to Russia’s interests, the government responded. The acquisition proposal was ditched by April 2002 (Vedomosti, 2002b). Politically, ACG was highly important in Russia’s relations with Azerbaijan. Without a stake in BTC, the transport for ACG oil through Russia or BTC on third party terms, would be costly for Lukoil. Without a BTC stake and in a minority position in AIOC, Lukoil could no longer influence the balance between export routes in favour of Russia. If it wanted to remain loyal to the state, Lukoil could not disregard the government’s preferences. In November, Lukoil sold its stake in the ACG field for 1.375 billion US$, in a highly profitable and timely transaction (Sapozhnikov, 2002; Sapozhnikov et al., 2002; Ignatova, 2003a; NiK, 2003o). Its new strategy, Lukoil
explained, was to prioritise exit from projects in which it was not an operator, and to concentrate on projects where it had more influence. But ACG was not the only project in which Lukoil was not operator. The released capital did not find any new investment opportunity soon. For Russia, the result was a shrinking place in Azerbaijan’s energy sector.

What applied to oil did not apply to gas, however. The giant Shah Deniz gas field and its export pipeline seemed to have fewer political connotations in Russia. Lukoil, through LukAgip, held 5 percent of Shah Deniz, which was planned to export gas to Turkey through the Baku-Tbilisi-Erzurum (BTE) pipeline. In 2004, Lukoil increased its stake to 10 percent. Lukoil’s share of the South Caucasus Pipeline Company, which owned the BTE pipeline, also increased to 10 percent, and its share of the Azerbaijan Gas Supply Company to 8 percent (Sapozhnikov and Khvostik, 2004).

5.7.2 Kazakhstan

By 2003, Lukoil was the largest Russian investor in Kazakhstan, and an experienced operator (Table 5.4) (Glumskov and Skorobogat'ko, 2003). In the following years, it became the fourth largest petroleum producer in the country (Alekperov, 2006; NGV, 2011a). Lukoil’s connections to Kazakhstan’s leaders were excellent (Kravets, M., 2004; Kommersant, 2006).

5.7.3 Uzbekistan

Uzbekistan’s gas export depended entirely on Russian transit, and Western companies were less interested in its gas projects. Russia and Uzbekistan concluded a strategic partnership agreement in 2004 (Gotova, 2004; NiK, 2004f). In 2003, Itera was forced out of the gas transit market from Central Asia when Gazprom acquired the management rights
to the Uzbek gas grid (Butrin, 2004). Lukoil took over Itera’s shares in Kandym-Khauzak-Shady (Vinogradova, 2003). By 2004, Lukoil controlled 90 percent of this PSA (Lukin, 2006; NGV, 2007b). The gas was sold to Gazprom at the Uzbek border (NiK, 2004f) at the same price as other Uzbek gas, and much higher than Gazprom’s price for Lukoil’s Russian gas. Lukoil shared its profits from the PSA with Uzbekneftegaz before having recovered costs, exceeding the obligations of the PSA. This was probably expected, possibly demanded, by the Uzbek government (Makarkin, 2008a). After Kandym-Khauzak-Shady, Lukoil entered into a series of exploration projects and advantageous PSAs (Table 5.5).

In 2000, the balance of power between the government and oil companies tilted towards the former (Tutushkin, 2000; Kravets, M., 2004; Vedomosti, 2004). The state demanded more access to Lukoil’s decision-making. Lukoil refused and would not compromise its autonomy in core operations. At the same time, it withdrew from projects aimed at wider institutional development. Its independence abroad diminished. There was more ‘state-mindedness’ in its post-Soviet operations. Often seen as a conformist, Lukoil took the written and unwritten rules of Russian foreign policy into account (Vahtra and Liuhto, 2004, p.95).

As oil prices rose, Russia could more easily achieve its aims in international politics. After 2001, Kremlin and government support of and interest in Lukoil abroad seemed more pronounced than before, according to Alekperov (Drankina and Fadeev, 2001; NiK, 2002a; Zagorodnaya, 2003). He was included in the business delegation when Putin travelled to countries in which Lukoil operated, or had an interest. When Lukoil signed agreements or

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opened facilities abroad, members of the Russian government were usually present.
Lukoil’s dealings with the state on foreign policy issues included advice to policymakers,
as Lukoil had expertise and knowledge from operations in many countries (Butrin, 2003b).
It ensured that Lukoil’s interests would be taken into account in Russian foreign policy.

5.8 The new stability: Loyalty and stagnation
The state now had greater capacity in the oil sector, but the government was increasingly
impatient with oil companies’ efforts to minimise tax payments. In 2003, Putin and the
government clashed with Mikhail Khodorkovskii of Yukos on the subject of oil sector
regulation. The case included tax optimisation, especially through domestic offshore
havens, but also the extent to which the state should influence production methods.
Yukos’s attempts to develop export options with China but without Transneft, and its
lobbying of the Duma were also issues of contention (Gustafson, 2012, p.294-295). When
Khodorkovskii was arrested on tax claims in October, the campaign against Yukos,
underway for some time, moved up a gear into expropriation. The heads of other
companies kept quiet.

In the period from October 2003 to the end of 2005, Yukos’s production company,
Yuganskneftegaz, was sold off and eventually acquired by Rosneft. In the same period, the
major private oil company Sibneft came under Gazprom’s control. The state undertook an
extensive control mission of oil industry operations in West Siberia (Gustafson, 2012,
p.308-309). The private oil sector seemed under threat of renationalisation. State
companies did indeed acquire a series of stakes in the oil and gas sector in the years that
followed (Bradshaw, 2009, p.6-7). This was less of a coherent, planned campaign than a
series of events, that in sum tilted the playing field in favour of the state (Bradshaw, 2009,
p.5). The division between state-owned and privately held organisations became more conditional, less distinct (p.42).

Lukoil complied with the new informal requirements, and continued to operate. Alekperov even more than before was prone to describing Lukoil as ‘state-minded’. There was no difference, in principle, he insisted, between the Russian oil companies. They were all Russian (e.g. in Tutushkin, 2008c). The subject often came up in the context of licensing on the shelf, suspended in 2005 and awarded as a prerogative to Rosneft and Gazprom in 2008. Lukoil’s management were criticising this arrangement openly by 2012 (Vedomosti, 2012). Their misgivings notwithstanding, Lukoil’s management had accepted the balance of power, it said, between Russia’s largest oil companies as a Kremlin decision.

Yukos had pursued merger talks with Sibneft, Chevron and ExxonMobil ahead of Khodorkovskii’s arrest. It was therefore significant when the state sold its final 7.59 percent stake in Lukoil to ConocoPhillips a year later (Kommersant, 2004c). Lukoil had valued having the state as a shareholder. But it was the Kremlin’s decision to divest the state of its remaining stake, against Alekperov’s wishes and with little prior consultation (Tutushkin, 2004; Vedomosti, 2005). The new shareholder, ConocoPhillips, was selected on the basis of Lukoil’s strategic priorities. In advance of the deal, Alekperov and James Mulva of ConocoPhillips sought Putin’s approval. Their meeting covered the terms of the deal, including guarantees against political attacks, and future business plans (NiK, 2004a; Tutushkin et al., 2004). The final deal reflected Kremlin priorities, especially a restriction on direct ConocoPhillips partnerships in projects inside Russia (Makarkin, 2008b). In addition to ConocoPhillips’s stake, Lukoil’s managers increased their ownership control of the company substantially in the 2000s (Table 5.1).
The Yukos case illustrated the importance of political loyalty and adherence to convention and regulations to avoid being targeted for selective rule enforcement. In exemplifying the selective application of formal rules, the Yukos affair reinforced a system of personal privileges (pp.41-2). Alekperov learnt this lesson. Perhaps most importantly, once he understood that Putin was promoting state-owned Rosneft, still a rather insignificant company, he settled all ongoing disputes with that company (Gustafson, 2012, p.334-335). Lukoil quickly eliminated its legal tax optimisation schemes like those employed by Yukos (Skorobogat'ko, 2004). In December 2004, when the Kremlin asked the oil companies to cut petrol prices, Lukoil was the first to be asked. It complied, and others followed (Levinskii, 2004). When prices started rising again in September 2005, Lukoil initiated a renewed price freeze (NGV, 2006b). When a new request came in 2008, and Lukoil acquiesced, Alekperov approached the matter in the following way:

Do you have any other option? Have you seen anyone else who disagrees with the state? What is the point? If it is required to help the state at any time, you have to help. (Shevel'kova, 2008)

This highlighted a central lesson to be drawn from the Yukos affair. To Putin, the long process of increasing revenue collection in the oil sector, or rather, to force the companies to share more of their rents, was not just about accessing rent streams through formal taxation. It was also about the state’s right to access informal rent streams and use oil companies as tools of the state through direct control. Oil companies could not ignore suggestions of regional development in the form of CSR, charity and sports contributions. Following up on government plans for a national, oil-driven development policy was now part of what they were expected to do, and doing so reduced their vulnerability to predation
by the state (p.11). Informal rent extraction by demanding voluntary contributions became a staple of the state’s relations with the oil sector and big business in general (Meshcherin, 2010a). Lukoil promoted regional museums, supported veterans, invalids, orphanages and hospitals, funded university programmes and sponsored a wide variety of regional and youth sports, as well as teams and clubs on the national level. The extent of all this indicated how Lukoil, in its own way, was substituting for some of the state’s public welfare obligations and supplied infrastructural power as well.

Lukoil’s management followed developments in the Kremlin closely. According to media reports, Alekperov was one of the Russian managers to meet Putin most frequently (Kommersant, 2004b; 2005). One study claims that Alekperov spent up to 80 percent of his time studying changes in the Kremlin’s balance of power (Gorst, 2007, p.3). As Lukoil was no longer state owned, this appears partly as compensation, through informal interaction, for formal access and participation. It was important to keep abreast of state plans for the oil sector, and to pursue closer relations with the state now that property rights in the oil sector had less protection (p.11). Alekperov claimed never to have been denied access to the prime minister or other government members (Butrin, 2003b). Other members of the senior management, like Vice President Fedun, did not enjoy the same level of access (Mazneva et al., 2008).

Consultations with the president also involved seeking his approval of new upstream projects and entry into new downstream markets before acting on the plans. In February 2006, Alekperov received Putin’s approval to acquire more petrol stations in Europe (NiK, 2007m; Mazneva, 2008a). Such consultations shielded Lukoil from criticism of, for example, causing a capital flight when investing abroad (Vedomosti, 2002a). This was a
sensitive topic in light of the Yukos affair. Consultations with state officials also opened for small-scale participation in, and access to information about, policymaking. State organisations regularly asked Alekperov, among other prominent businessmen, to advise them on policy and share rents informally in everything from the North Caucasus to education. The opportunity to consult with Putin on the sidelines of roundtables and conferences held considerable attraction (cf. Nikolaeva and Bekker, 2006).

Lukoil’s leadership in production output in the Russian sector was overtaken by Yukos in 2003 (only) and by Rosneft, which acquired Yukos’s production assets, in 2007 (NiK, 2007c). Lukoil was the second largest exporter of crude oil from Russia in 2001, barely surpassed by Yukos at approximately 23 million tonnes. By 2005, both Rosneft and TNK-BP exported more, and Lukoil’s exports peaked at just above 34 million tonnes. In 2009, Lukoil was the fourth largest exporter at just below 25 million tonnes (NGV, 2010b).46 This was partly explained by Lukoil’s relatively high share in domestic refining and oil products export, but output had stagnated (NGV, 2010d; NiK, 2011f). The company now maximised profits, not output volume (Meshcherin, 2011b). Lukoil maintained its position through innovation and modernisation (Mel'nikov, 2011; Vin'kov et al., 2011), and by increasing exploitation rates in oil reservoirs (O’Cinneide, 2011). After the Yukos affair, this proved another sensitive topic, but in the financial crisis of 2008–9, it also proved necessary, by which time Lukoil’s Russian oil reserves were past their peak (NGV, 2011g).

The reasons for Lukoil’s difficulties in bringing new fields into production were both structural and political. Lukoil’s Russian fields were maturing and most of the attractive onshore fields were in production. Geological exploration was expensive. There was a lack

46 Numbers exclude exports to the CIS.
of incentives for new developments. The administrative barriers were high and legislation unsatisfactory. This problem was affecting all the major Russian companies by 2010 (NGV, 2010c; Mandrik, 2011; Meshcherin, 2011c). The oil taxation system of 2001 exacerbated the problems. Following adjustments in 2004, 80 percent of the profits from years of the oil price boom were directed into the federal budget. The taxation system discouraged investment, including investment to sustain future production levels (Aleksashenko, 2012, p.36 fn. 34; 46; Bradshaw, 2012, p.209). As the problem went from chronic to acute with the financial crisis, a federal law allowed companies to apply for exemptions, but only as tax breaks for individual fields. Some projects were also allowed to drop the oil export duty (Ekonomika i zhizn', 2009; Oilcapital.ru, 2010). This initially worked to Rosneft’s advantage (Gudkov, 2010). Alekperov later successfully lobbied for lower oil export duties for two fields in the Caspian Sea, by speaking with Prime Minister Putin directly at the opening of one of them (Meshcherin, 2010a).

In addition, Lukoil’s participation in auctions of new licences in Russia also declined rapidly. These auctions included some for licences which, in light of its business strategy and existing assets would otherwise have appeared particularly attractive to Lukoil (NiK, 2005d). Another outcome of the Yukos affair was that these attractive new licences were awarded to Rosneft and Gazprom. In the case of Rosneft, this had been going on since 2003. At some point in the years 2005–2008, Lukoil butted against a glass ceiling as far as new licences were concerned (NGV, 2006a; Malkova, 2010a).

Onshore, the rules applied to Russian (as opposed to foreign) companies, were less restrictive, officially at least. Informally, as of 2004, Lukoil was excluded from the best new oil licences due to ConocoPhillips ownership stake, which incurred restrictions on
strategic stakes. This was formalised in the law on Strategic Stakes from 2008 (Heath, 2009; Golubkova and Ershov, 2010). ConocoPhillips was not allowed into Lukoil’s most profitable operations, and it eventually sold its stake in Lukoil in 2010 (Embassy Vilnius, 2005a; NGV, 2011i, p.56).

There were also fewer licences to bid for. The major Russian oil provinces were maturing, and new ones remained undeveloped. Some licences were withheld from auction until Rosneft and Gazprom could afford them. Yukos’s remaining assets were tacitly reserved for the state-controlled companies (NGV, 2006a). Lukoil loyally refrained from challenging this situation (Savushkin, 2005; NiK, 2006a), and thereby maintained good working relations with Gazprom and Rosneft. It was unfair, said Lukoil’s management, but would not ‘recommend anyone to enter into conflict with Gazprom’ (Sivakov and Vin’kov, 2007; Mel’nikov, 2011). When privately owned Bashneft invited Lukoil in 2010 to join in the development of the giant strategic Trebs and Titov fields, which Lukoil had previously contested, it was a major exception to the general rule in the sector (Orekhin, 2010; NGV, 2012a). The project ran into considerable licensing problems.

The strictest domestic conditions applied offshore. Lukoil had criticised early drafts of a new Subsoil Law, under preparation in 2005–8 (Graifer, 2006; Nekrasov, 2007; Sivakov and Vin’kov, 2007; Tutushkin et al., 2007). When passed in 2008, the law only allowed state companies with a minimum of five years offshore experience in Russia to seek new licences on the continental shelf (Federal Law No 2395, 1992; Kommersant, 2008a; Malkova, 2010a). Lukoil held a few shelf licences already and would have been a serious contender for new ones.
The changing regulation of the oil and gas sector, which privileged state-owned companies over privately owned ones, was promoted and supported by Sechin, who now chaired Rosneft’s Board (2004–11) (Meshcherin, 2010a, p.17; 20). Energy Minister Shmatko acquiesced. In the view of oil sector figures, he was a weak minister who left difficult decisions, especially decisions that affected the state-owned companies’ privileges, to Sechin, Medvedev or Putin (Starinskaya et al., 2010). Reportedly, Putin, too, preferred to leave sector development to Sechin, and general economic questions to Medvedev (Meshcherin, 2010a). By 2012, the lack of sector policy and strategic planning seriously hampered the oil industry’s development (NGV, 2012b). The state was no longer able to respond to industry demands. Oil company representatives regularly complained about micro-legislation and enforced monitoring, sticks with which to reach each company in case of non-compliance (Nikitin, 2010; Vinogradova, 2010; Nikitin, 2011). Lukoil was no exception (Mel'nikov, 2011).

Private companies could become Rosneft and Gazprom’s partners or expand abroad (Zotova, E., 2008b). Lukoil did both. It renewed and expanded its partnership with Gazprom in 2005 (Firsova, 2005; Afanasiev, 2011), and took steps to build a partnership with Rosneft (Vinogradova, 2011). Gas production became an important business segment (Table 5.2.) (NGV, 2005; Rebrov and Skorlygina, 2006). By 2016 it would account for around 30 percent of Lukoil’s overall production.

That notwithstanding, Alekperov continued to see it as Lukoil’s responsibility to develop the Russian oil sector. He even asked, indirectly referring to the difficulties foreign investors encountered in Russia,
if companies like Lukoil and Gazprom start orienting themselves on projects outside Russia – who would come here if [Russia’s own] companies leave? (Rebrov, 2010a)

Alekperov and heads of other private companies remained critical of the preferential treatment of state companies (Alekperov, 2011b; Astakhova and Basvain, 2011; Derbilova and Mazneva, 2011). Alekperov’s pursuit of greater Lukoil participation (Tutushkin, 2008c) resulted only in 2011 in an alliance, and a partnership for Russian shelf development, with Rosneft (NGV, 2011g; 2011c). A junior role like this was a considerable achievement for a private company at the time. In practice, it proved difficult to agree on the working format for the shelf partnership (Interfaks-ANI, 2011). In spring 2012, when international majors were concluding “shelf alliances” with Rosneft, Russian private companies were offered similar terms (Barsukov, 2012; Tovkailo, 2012).

Lukoil’s loyalty, senior position in the industry and private ownership enabled it to avoid unattractive political impositions. In 2006–8, an initiative by Putin led the government, Rosneft and Gazprom, to seek to establish a Russian oil exchange. To Lukoil, which did not rely on spot markets, it was irrelevant (Tutushkin, 2006; Rebrov and Solov‘ev, 2009). Lukoil also withheld support of Putin and Medvedev’s initiative to establish ruble-denominated oil trading.

Loyalty to the state, to formal and informal rules, became increasingly important under Putin. Alekperov’s claim to be ‘state-minded’ was more than an insurance against political risk. Already in 2003, a few weeks ahead of Khodorkovsky’s arrest, Alekperov noted that any challenge to the current order would have to come from somewhere else (Butrin, 2003b). In the context of the 2011 post-election demonstrations, Alekperov stated that he
always voted for United Russia, but otherwise was not ‘a political figure’ (Derbilova and Mazneva, 2011). His was the position of an ideal, loyal businessman under Putin (Babaeva, 2001; cf., Rachkov, 2001). But relations between Lukoil and the state changed after 2003, especially in relation to the 1990s. Lukoil had to adapt to changes wrought by the state to the institutional framework, first in the form of informal constraints and then formal regulations. The asymmetric power relations between Lukoil and the state were visible. Interaction between the state and all oil companies was broadened and formalised in 2000, but starting in 2001, the state set new terms that reduced oil companies’ opportunities to participate in policymaking. Informal contacts were now of decisive importance to private companies in their dealings with the state. Institutional development became the preserve of state organisations. State companies had privileges not available to a private company like Lukoil. By reducing the influence of private companies in policymaking, the state had aggregated greater despotic power to itself (p.54).

5.9 Expansion?

Lukoil now developed upstream projects in Egypt, West Africa and Iraq. It established petrol stations in the United States and many European countries, and acquired refineries by the Black Sea, in Sicily and the Netherlands (Mazneva et al., 2008; Socor, 2009a). In 2008, Lukoil also considered acquiring a strategic stake in the Spanish oil company, Repsol. In this case, it seems that the support of the Russian state was withheld by figures at the highest level (Granik and Gabuev, 2009). There was no acquisition. Price considerations may have been decisive, however.
5.9.1 Upstream

Relations with the Russian state in connection with operations abroad remained on the whole supportive – in exchange for Lukoil’s loyalty at home. In addition, Lukoil was occasionally involved in the state-led development of foreign energy ties, when Russian energy companies teamed up and pledged participation in bilateral energy deals with partner states. This type of involvement became more important in Russian foreign policy after 2003. Sometimes, Lukoil engaged in well-targeted CSR activity abroad. This happened for example in 2006 when it offered to build a textile factory, supermarket and business centre in Dushanbe, with a view to attracting around 1 billion US$ in investments to Tajikistan (Petrachkova, 2006). Lukoil here resembled the extended arm of Russian foreign policymakers, joining the state-owned companies RAO UES and Gazprom in sharing its rents with Tajikistan’s elites ahead of presidential elections there (Blagov, 2006b). The provision of economic support and help to stabilise Russia-friendly regimes in Central Asia was a foreign policy priority.

There could be a business interest at the heart of these ventures, as in Venezuela. In 2009, Lukoil co-founded the National Oil Consortium, which was headed by Sechin, with TNK-BP, Gazprom, Surgutneftegaz and Rosneft. The consortium was put together to develop fields in Venezuela’s Orinoco belt with the Venezuelan national oil company (NOC) PdVSA (RIA Novosti, 2009; Finam, 2010). The PSA with PdVSA was part of a bilateral package dealing with military cooperation and Transneft’s participation in oil pipeline development in Venezuela. By 2014, the consortium remained a vehicle of the Russian petroleum sector’s engagement in Venezuela, Cuba and Nicaragua, where some of the Russian companies might not otherwise have chosen to engage.
In its traditional international upstream around the Caspian Sea, the mid-2000s presented Lukoil with a more challenging business environment. Host governments gave foreign companies less generous terms in response to fewer operational risks, wider profit margins, along with NOCs’ increasing experience and financial strength. China became a significant competitor.

Support from the Russian state regarding Lukoil’s Kazakhstan became increasingly conditional on loyalty at home. When Lukoil in 2004 stopped using tax optimisation schemes altogether in Russia, it was rewarded with Putin’s presence at the signing of the Dostyk agreement (Kravets, M., 2004). The new circumstances also reflected the changing power balance in the Russian oil and gas sector, where the priority of state company development led to setbacks for other companies. This happened, for example, when Kulalinskaya, a long-time Lukoil project, came under Kazakhstan’s jurisdiction following the delineation of the Russian-Kazakhstani sea border. The Russian government designated Rosneft and Zarubezhneft as its entrusted companies in the field (now Kurmangazy) with a 25 percent share each (NiK, 2006k). Lukoil also planned, with KazMunaiGaz, to expand gas-based petrochemicals and refinery capacity either in Russia or Kazakhstan. In 2005, the proposal included resources from two offshore fields, Khvalynskoe and Tsentralnoe (NiK, 2006g; 2011a). The Russian government postponed finalisation of Lukoil’s involvement in both fields, referring to the 2008 Subsoil Law and its restrictions on offshore participation of non-state companies (NiK, 2011l). As Lukoil went ahead with plans for a polypropylene factory in Budennovsk, which would process gas from Lukoil’s offshore fields on both side of the border, Gazprom withheld guarantees in 2010–11 for Lukoil’s access to the Russian gas pipeline system in this particular region (NiK, 2011a). The Russian tax system also placed the profitability of the project in question (Rebrov,
There was some progress in the development of Khvalynskoe after 2011. Plans for Tsentralnoe, where Lukoil and Gazprom were partners on the Russian side, were still pending.

But Lukoil did well in Kazakhstan even with less support from the Russian state. It sometimes functioned as a counterweight to Chinese companies. This seems to have been understood in Lukoil, and appreciated, perhaps also encouraged, by Kazakhstan’s government (Skorlygina, 2006). The same thing happened in the case of the large oilfield Kumkol, part of which was operated by Turgai Petroleum, of which Lukoil held 50 percent. The Chinese company CNPC acquired PetroKazakhstan, which owned the other half of Turgai Petroleum in 2005 (Suleimenov, 2005; Marten, 2007). Lukoil protested against the sale to CNPC, claiming that its right of first refusal to PetroKazakhstan’s share had been denied (Skorlygina and Rebrov, 2007, Rebrov and Konstantinov, 2008). After a lengthy process involving arbitration and negotiations, Lukoil was compensated in August 2010 (Today.kz, 2010). However, between 2005 and 2010, Lukoil’s claims towards PetroKazakhstan and CNPC also gave Kazakhstan an opportunity to reduce CNPC’s share in PetroKazakhstan and award 33 percent to KazMunaiGaz (Suleimenov, 2005; Marten, 2007). This was undoubtedly appreciated also in Moscow. However, findings here fail to confirm whether Lukoil acted as the Russian state’s agent (Marten, 2007, p.35). Also in other cases, such as Lukoil’s acquisition of Caspian Investment Resources in 2005 (Savushkin, 2005; Alekperov, 2006), Kazakhstan’s government clearly treated Lukoil preferentially. It closed the deal just when CNPC displayed an interest (Savushkin, 2005; Skorobogat’ko, 2005; NiK, 2006b).
After 2005–6, Lukoil and other foreign companies faced a far more assertive Kazakh government (Lukin, 2010a; 2010b). This new stance also affected the Karachaganak Petroleum Operating consortium, in which Lukoil held 15 percent (Table 5.4) (Mel'nikov, 2010; Mazneva, 2011). Support of the Russian government made no difference in disputes in Kazakhstan.

Lukoil instead entered into a strategic partnership with the Chinese company CNPC in Central Asia in 2007 (Gorshkova, 2007; Kezik, 2007a). In 2010 the companies signed a comprehensive partnership accord during President Medvedev’s visit to Beijing (Grib and Mel'nikov, 2010; Upstream, 2010). Good relations with Lukoil’s main international competitor in Kazakhstan and Uzbekistan were now a priority. But it was also important in the context of Russia and China’s expanding energy relations. Lukoil offered Rosneft competition in the Russian-Chinese energy relationship. This was best done outside the immediate bilateral energy relationship, where Rosneft was the Russian state’s designated oil supplier and China’s partner.

Lukoil’s Uzbekistan venture was a major success (Table 5.5). Gas production was estimated to represent half the company’s profits from gas in 2010, even as the production volume was only around 31 percent of overall gas production in Lukoil (NiK, 2010b). The company had the solid support of the Russian government; indeed, Lukoil seemed integral to Russia’s policy in Central Asia (NiK, 2007l; 2008a). In 2009, Uzbekistan’s President Islam Karimov promised Medvedev that by 2015, all of Uzbekistan’s gas exports would go to Russia (NGV, 2009b). However, in 2008–2009 bilateral relations deteriorated. Uzbekistan suspended its membership of the Eurasian Economic Community.47 Gazprom

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47 The other members were Russia, Belarus, Kazakhstan, Kyrgyzstan and Tajikistan.
scaled down its activities in Uzbekistan (Grib and Mel'nikov, 2010; NiK, 2011a). Uzbekistan set stricter terms for foreign oil and gas companies to operate in its petroleum sector, and Chinese companies were the quickest to respond (Lukin, 2010a; NiK, 2011c). Lukoil, on the other hand, was constrained by Gazprom’s reluctance, as demand decreased, to buy gas from other producers (NiK, 2011c). Lukoil’s gas production in Uzbekistan now targeted the Chinese market (NiK, 2011a; 2011l; Lukin, 2012, p.19). In Turkmenistan, however, Lukoil could not compete with Chinese companies. After Russian-Turkmen relations deteriorated in 2008, a situation to which Gazprom contributed greatly (p.271), Lukoil’s chances of gaining a foothold disappeared.

5.9.2 Downstream

After the Orange Revolution of 2004, the business climate for Russian companies in Ukraine worsened (Makarkin, 2005b; Vedomosti, 2005). The influence of Chernomyrdin, then Russia’s ambassador to Ukraine (2001–2009), may have compensated a little. During Yushchenko’s presidency (2005–10) the Russian state did sometimes force the Russian companies to show solidarity with each other, as in 2007, when the Kremlin appears to have advised Russian oil companies not to supply crude oil to the Kremenchug refinery, where Tatneft had problems with its partners (NiK, 2007a). Lukoil and several other Russian companies halted supplies to the refinery.

There were limits to the Russian government’s readiness to lend its support. In April 2005, Prime Minister Tymoshenko accused refinery owners, Lukoil and TNK-BP in particular, of creating a Russian-controlled petrol monopoly (NiK, 2005g). Lukoil was threatened with the reprivatisation of its holdings in Ukraine (Gavrish, 2005b; Gavrish and Chernovalov, 2005a). Russian oil companies tried to get the Russian government to
intervene, to no avail (Orekhin et al., 2005). The situation improved with President Yushchenko’s intervention (Gavrish, 2005a; Gavrish and Chernovalov, 2005b; Makarkin, 2005a), but another crisis followed in 2006 (Gavrish, 2006). In October 2009, Lukoil again ran into problems when operations at the Odesa refinery came in the way of the most influential business conglomerate in Ukraine, the Privat group (Grivach, 2009a; Mordyushenko and Gavrish, 2009; Eremenko, 2011). Odesa later closed for repairs and was sold to a Ukrainian company in 2013 (NiK, 2013b).

In 2010, Ukraine began to release shelf exploration licences. This was attractive to Gazprom and Lukoil for commercial reasons, but obtaining licences could also pre-empt competition at an early stage and keep options open later when Russian production would drop. Lukoil was a likely partner in the Bezymyannyi, Odesa and Subbotinskii blocks (Vinogradova, 2011). Russia’s annexation of Crimea in 2014 stopped this process.

Like all major Russian exporters, Lukoil depended partly on transit through Belarus to reach the European crude oil market. Lukoil was one of the companies that profited from refining crude oil in and exporting oil products from Belarus to avoid domestic bottlenecks and export duties (p.197). In 2007, Lukoil supplied around a quarter of all oil delivered to Belarus (Rebrov et al., 2006). This volume declined slowly after the 2007 and 2010 oil transit crises (pp.221-2). Lukoil also remained interested in stakes in the Naftan and Mozyr refineries, in the event of privatisation (NiK, 2003j). Meanwhile, Lukoil and Naftan formed a joint venture in oil product additives in 2006 (Rebrov et al., 2006; LLK-Naftan, 2011). Belarusian authorities repeatedly declared the privatisations of Naftan and Mozyr imminent (Chirko, 2006; Rebrov, 2008a; Belov, 2009), but this seemed unlikely (Khodasevich, 2010; Slavinskaya, 2011).
In 2005, a new opportunity arose to acquire the Mažeikiu refinery in the sale of Yukos’s holdings (Vedomosti, 2005). The Lithuanian government clearly preferred non-Russian ownership (p.219). Lukoil remained interested, but was disadvantaged by the political climate (Embassy Vilnius, 2005b; 2005a). The final signal to refrain from acquiring Mažeikiu appears to have come from the Russian government (Embassy Moscow, 2006; cf. Embassy Vilnius, 2006). As Transneft phased out non-Russian Baltic ports (p.211; 220), Mažeikiu ceased to be a commercially viable option for Lukoil.

In the last few years under study here, Russian foreign policy limited Lukoil’s development in the post-Soviet region. In some cases, especially in Kazakhstan and Belarus, the business environment offered by the host government seems to have been decisive for Lukoil, as it was for other companies. In Ukraine, both governments contributed towards a deteriorating bilateral relationship, but Lukoil’s problems had mainly to do with the difficult business environment in Ukraine. In relation to Baltic export routes, however, Lukoil’s commercial interests came up against new Russian foreign policy priorities, carried out by Transneft. Lukoil faced the same problems in Turkmenistan with Gazprom. Lukoil’s opportunity to take part in Russian foreign policymaking in the post-Soviet region was now limited.

5.10 Conclusions

Lukoil started as an insider project, and it participated in, even drove, institutional change in the Russian oil industry in the 1990s. Development of state organisations and policies and Lukoil as a private company went hand in hand. Lukoil on its side seemed more advanced than the Russian state as a state. Its access to central state organisations was informal and personal along with the more formal relations, but rents were shared formally.
with the state as well as informally. Lukoil had a stake in the development and implementation of formal institutions, insofar as its existence as an organisation depended on property rights upheld by the state. Formal rent sharing was negotiated with the state, while informal rent sharing tied Lukoil to the ruling coalition and offered further protection of property rights. As its foreign operations grew, Lukoil could turn divisions among state representatives on the issue of the Caspian Sea to its advantage, shaping foreign policy in the process.

In 2000–3, Lukoil’s relations with the state grew increasingly formal and impersonal. Access to senior figures and participation in policy and decision making took place now on more generalised terms, embodied in collective oligarch meetings. Putin’s ruling coalition now used the state’s coercive infrastructure to increase its despotic power. Rent extraction and distribution were increasingly institutionalised as taxation, to give the state a greater advantage over oil companies and society. For Lukoil, the beginning of the Putin regime meant loss of access to government figures and participation in developing policy and the institutional framework. But it was also a turn towards greater formality and impersonal relations, insofar as oil companies were now treated more equally, on more transparent terms. Had this lasted, it might have been the beginning of a stronger protection of property rights throughout the oil industry, because informality could have yielded to formality in rent sharing and property rights protection.

Increased state capacity, especially increased despotic power (p.54), affected Lukoil’s foreign operations in Azerbaijan and the Baltic states. But Lukoil did not itself control integrated infrastructure that extended into the post-Soviet region, and state–company interaction did not make Lukoil a tool that could be used for coercion. Transneft was here
the coercive tool of the state. Khodorkovskii’s arrest represented the highpoint in the
collision between the state and the oil industry. ‘State-minded’ Lukoil inevitably accepted
state regulation in the oil industry. During the forced sale of Yukos’s assets, Lukoil’s
management watched as the state regulated property relations among oil companies, and
privileged Rosneft and Gazprom over other companies. The oil sector stagnated. In
Lukoil’s case, there was a glass ceiling in licence acquisitions in Russia.

Informality returned as the basis of state–company interaction. Informal relations were
again of the essence for a private company like Lukoil to gain access to the state. Whether
intended or not, the Yukos affair weakened property rights (p.40) in the oil industry and
Lukoil’s owners could not afford the luxury of refraining from informal rent sharing in
return for property rights protection. This was most notably in the form of extensive CSR
programmes. Among state organisations, some were more important than others. Rosneft
took the lead in sector development, and may well have sidelined the Energy Ministry.
This indicates that the regime’s interest in staying in power may have been more important
than considerations of state and societal development. State–company relations became the
province of an inner circle. In this period, Lukoil stands apart from the other cases in this
study. Its executive manager remained on the periphery of that circle, and had to
compensate by paying greater attention to Putin’s every move. Lukoil had a fundamentally
supportive and loyal role in relation to the regime, but it was further removed and therefore
also more autonomous than the other cases.

Support for Lukoil’s foreign operations became, around 2003, conditional on loyalty to the
state at home. Its fundamentally subordinate and remote relationship with the state was
carried over into foreign operations. From 2006–7, there are instances in which Lukoil
seems to have acted as an instrument of the state, at home and abroad. For Lukoil, a private company, the state had no direct access to company resources, and investment decisions surely would have to be negotiated at some level. Informal taxation of Lukoil seems to have been above all in the form of recommended CSR and regional development, which also supplied the state with infrastructural power. Private ownership may have shielded the company from two greater informal taxation drains, as there seemed to be little mandatory and loss-making spending in its core business areas and few artificially inflated staff rosters.

But Lukoil is again different to the other cases here, as it only on a few occasions acted as a tool of the Russian state. When it did, it seemed to be a negotiated understanding, or even a responsibility accepted voluntarily. It did not maintain or cultivate dependence on Russia in the post-Soviet region on a grand scale.

Clearly, the lower level of access and participation with the state, and the extent to which Lukoil had to adapt to the state while losing its influence on state policies after 2003, extended to foreign operations as well. Abroad, too, there was greater distance between Lukoil and the state than in the other cases studied here.
6. OIL PIPELINES: TRANSNEFT

In the overall institutional development in post-Soviet Russia, some companies stand out for having a relationship with the state characterised more by continuity than by change. Rosatom and RAO UES belonged here until they were reformed. These companies were also used as foreign policy tools in the post-Soviet region. Lukoil, for its part, turned from being a driver of foreign policy into a company that exchanged loyalty at home for state support abroad, and occasionally, it would take on a task where it seemed to act as a tool of the state. In Transneft’s case, too, interaction with the state over institutional development included foreign policy and energy operations in the post-Soviet region. In parallel with the first two cases, Transneft’s relations with the state were close and remained remarkably stable over the period investigated here, but they changed less. Indeed, they changed less than in all the other cases in this study, and this extended to Transneft’s interaction with the state concerning foreign operations. This chapter shows how Transneft has remained a foreign policy tool of the state since the 1990s.

6.1 The break-up of the Soviet Union and Soviet legacies

Glavtransneft, the Soviet Directorate for Oil Transport and Deliveries, controlled a completely integrated 94,000 km pipeline network for crude and oil product transport when the Soviet Union broke up (Transneft, 2014b). Glavtransneft owned and sold the oil in the pipelines (Gustafson, 2012, p.82). While the Soviet oil sector disintegrated, Glavtransneft remained intact. This is less remarkable than it sounds. Pipelines are natural monopolies. With a natural monopoly (p.67 fn.11), maintaining the status quo will always be the preferred strategy for many actors (p.35). As oil production declined, by 1990 the pipeline system was operating below capacity (Gustafson, 2012, p.83-84). The regulated
domestic oil prices also increased more slowly than purchase prices. With low demand and a selling price below the buying price, Glavtransneft ran up debts. The head of Glavtransneft and Deputy Minister for Oil, Valerii Chernyaev, therefore preferred not to take control of large-scale oil trading through Transneft. He could have pursued market power with Gazprom as a model, but Transneft was too weak (Gustafson, 2012, p.83-84). Chernyaev instead stayed out of the battle for control and markets in the oil industry. He managed to introduce a standard tariff for Transneft’s services, serving oil producers on a neutral basis. Transneft no longer owned the oil in the pipelines. This was finalised in late 1991, with tariffs in effect from 1992 (Gustafson, 2012, p.84). With the institutional framework modified in this way, stability was maintained. The Soviet legacy in oil pipeline transport was therefore a state-owned 48,000 km de facto monopoly (Transneft, 2014b).

Transneft was headed by Chernyaev (NiK, 2004g). In November 1992, this loosely integrated association of pipeline enterprises was formalised as state property and split off from the oil product pipelines, which became part of the wholly state-owned Transnefteprodukt (Decree No 1403, 1992). In August 1993, Transneft was reorganised as a wholly state-owned shareholding company, and a de facto monopoly ‘for the duration of the prohibition on private oil pipeline transport’ (Government Resolution No 810, 1993).

This institutionalised Transneft as an exception to the general rule for pipelines. Pipelines are most often owned and operated by one (or several) producers who often control in addition an integrated chain from production to markets (Dodsworth et al., 2002; Stevens, 2009, p.18). For Russian oil companies in the 1990s, Transneft’s position was not

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48 This was the extent of the pipeline system after disintegration of oil products pipelines and non-Russian pipelines.
necessarily a problem. Its conditions and tariffs were the same for everyone. As oil production continued to decrease, there was sufficient capacity.

6.2 Keeping afloat and muddling through

Transneft’s services were essential for the Russian oil industry. By bringing oil to market, it kept companies and the state budget afloat. Tariffs gave Transneft a predictable income. There was no need to build pipelines between 1985 and 1999. Instead, pipeline capacity was reduced as demand contracted. Older pipelines were repaired. A preference for repairs over replacement went hand in hand with the development of an affiliated repair organisation, lavishly furnished with excellent, imported equipment. It was controlled by Chernyaev’s son and financed by a temporary hard-currency surcharge on tariffs, introduced in 1993 (Smirnov, G., 1998; Verezemskii, 1998b). This extracted rent from the oil companies, and directed a share of it towards pipeline maintenance.

Chernyaev senior had succeeded his father in Glavtransneft in 1980. He was a dedicated professional. Amidst oil industry restructuring, nobody supported lifting the moratorium on private pipelines. Transneft’s position was informally secured by Chernyaev’s personal friendship with Chernomyrdin (Verezemskii, 1998b). Internally, Chernyaev demanded and enforced complete loyalty throughout regional subsidiaries (Verezemskii, 1998b). The top management controlled Transneft’s income from the temporary hard-currency surcharge (Verezemskii, 1998b). The surcharge was intended to cover repairs only (Smirnov, G., 1998). Meanwhile, the basic ruble tariff largely accrued to Transneft’s regional subsidiaries. By early 1996, oil company managers were impatient with the no longer very temporary surcharge, but refrained from open complaint. Transneft enforced a strict payment discipline (Smirnov, G., 1998). Government ministers were also unhappy about
Transneft’s wealth (Verezemskii, 1998b). The government wanted a greater share of Transneft’s rents, since it was a state-owned company. The Fuel and Energy Ministry tried to reduce the hard-currency surcharge in order to force Transneft to share rents. It also obtained a government order to make Chernyaev choose between his posts as Transneft’s Board Chairman and its head (Government Resolution No 1333, 1997). Although Chernomyrdin signed the order, he also allowed it to remain dormant to protect Chernyaev (Verezemskii, 1998b). With such discretionary regulation (p.50) by the prime minister, central state organisations could not implement formal institutions. But when oil prices began to fall in early 1997 (Graph 2.1), the revenue shortfall made the state and oil companies less inclined to let Transneft continue to accumulate funds.

While oil pipeline transport was largely unaffected by oil industry privatisation, the latter stages affected Transneft and Transnefteprodukt too. In April 1995, the state authorised the creation of privileged, non-voting shares in these companies (Decree No 327, 1995). These shares would be distributed among employees, and give them a generous share of profits. Transneft’s statutes reserved 10 percent of the annual profits for the privileged shares, to be paid out before dividends on ordinary, state-held shares (Transneft, 2014a). Failure to heed this obligation would convert the privileged shares into ordinary, voting shares, thereby diluting state control.

Many a company management had lost control first over subsidiaries, or a minority of the shares, and subsequently over the entire company. State ownership was no guarantee against such developments (pp.75-6; 116), as control of a state-owned company increased control of the state. One may approach what happened next as the Transneft management’s
effort to avoid losing insider control in a gradual, hostile privatisation (Verezemskii, 1998a). In the process, they also maintained their control over Transneft’s rent streams.

In the summer of 1996, a privileged share package (25 percent of all shares) was distributed among Transneft’s employees and pensioners. On management orders, shareholder lists remained secret (Verezemskii, 1998a). Then followed a series of secret processes, carried out by Transneft’s top 22 managers. There was no consultation with central state organisations. Transneft’s subsidiaries first acquired most of the privileged shares from employees, possibly under some pressure. This was not very unusual at the time. The argument was that share consolidation would prevent a hostile takeover and bolster state control (Verezemskii, 1998a). Further consolidation of share packages in the head company would, however, be difficult to accomplish within the law. The shares were instead consolidated by another affiliate, which in turn sold most of them to a private holding company (Verezemskii, 1998a), which Transneft’s managers had established for this very purpose and in which Chernyaev appears to have held a significant stake (Verezemskii, 1998a). Unusually for the mid-1990s, Chernyaev did not give any representative of central organisations a stake in the private company. Such informal rent sharing with a patron could have shielded the semi-legal share consolidation from investigation.

On Chernomyrdin’s dismissal in March 1998, Chernyaev had no more friends in government, and there was no informal rent stream that tied Transneft to the ruling coalition. By diverting Transneft’s informal rent streams away from the ruling coalition, he had breached the informal constraints. When refusing the government access to the company, he had also breached the formal rules. Chernyaev had failed to protect
Transneft’s autonomy. Sergei Kirienko’s government, in place in April, acted resolutely. In late May, Chernyaev and another manager were dismissed, and Transneft ordered to conduct an audit to international standards (Government Resolution No 512, 1998). Chernyaev was replaced by a former colleague of Kirienko’s from Nizhnii Novgorod, Dmitrii Savelev (Sokolov, A., 1999). Savelev proceeded to change Transneft’s auditor, who had participated in the transfer of privileged shares to the private holding company (NiK, 1998; Verezemskii, 1998a). The scandal broke and started a series of lawsuits. In the end, Transneft employees could not retrieve their shares, and the state and the new Transneft management could not reverse the share consolidation and sale (NiK, 2004b). In the absence of a solution in favour of the state, the next years brought protracted conflict over the issue of annual dividends to the privileged shareholders.

6.3 Trade collapse and system break-up

Transneft lost control of oil pipelines outside Russia, but the system continued to function as an integrated one (Siddiky, 2012, p.72). The difference was that Russia depended on transit to reach established markets. The main route was the 4,000 km Druzhba pipeline system. It crossed Belarus, Ukraine, Latvia and Lithuania, and extended into Poland, Germany, the Czech Republic, Slovakia and Hungary, taking 30 percent of Russian oil exports to Europe. In contrast, Transnefteprodukt’s system of oil product pipelines remained integrated through ownership to a larger extent. This network was developed for fuel supplies to Soviet troops at the Union’s western borders (NiK, 2003h). It was far less attractive under the new market conditions. The three largest ports for Russian oil, Ventspils, Klaipėda and Odesa, were now abroad. Only the fourth largest, Novorossiisk on the Black Sea, was in Russia. Russia was in turn a transit country for oil from Azerbaijan and Kazakhstan to old customers in Ukraine and Belarus, and to Europe.
6.3.1 Transit dependence

Bargaining power now shifted to transit state governments, which had become owners of a monopoly (Stevens, 2009, p.2). The transit pipelines were not regulated according to any overarching jurisdiction, and host governments held the key to continued operation. Post-Soviet host governments negotiated over transit terms, like tariffs, and saw pipelines as sources of rent.

The Russian elite gradually came to see transit dependence as a problem. With relatively low oil prices and export volumes, oil companies were reluctant to invest in new export pipelines. Established routes are always more cost efficient than new ones. As transit fees rose, so did Russian discontent. On some routes, especially the Baltic branch of Druzhba and the Lysychansk route, where the pipeline crossed Ukraine en route to Novorossiisk, transit fees increased more quickly than in other places. A Lysychansk bypass was discussed from 1993 (NiK, 2004r).

Throughout the 1990s, around 24 percent of Russian sea bound oil export was shipped out of Ventspils (Khikmatov, 2001). The idea of a Russian export route, a Baltic Pipeline System (BPS), originated around 1994. Different proposals were supported by Transneft, Russian companies, international companies (IOCs), and regional authorities (Rutland, 1999, p.169; Pynnöniemi, 2008, p.196-199; Zimin, 2012, p.224-225). Progress was slowed down by different preferences among stakeholders. The IOCs were reluctant to rely on Transneft and preferred to wait (Ivanov, N., 1997a; NiK, 2004o). Regional rivalry over routes and ports also delayed development (Gustafson, 2012, p.244-245). The project moved forward from late 1996 (Azarova, 1997; Government Resolution No 1325, 1997), but stalled until it received a new impulse in April 1998. Amid Russian protests over the
situation for Latvia’s Russian population, Latvia increased its oil transit fees. In retaliation, the Russian government asked oil companies to reduce their export through Ventspils (Sysoev and Gankin, 1998; NiK, 2004n). BPS now became a tool for pressuring Latvia.

From 1995, transit relations with Belarus were regulated in the Russia–Belarus Customs Union. The agreement left many details open to negotiation. In the Customs Union, Belarus was exempt from Russian oil export duties, but obliged to return 85 percent of its oil products’ export duty to Russia. This it did not do (Yafimava, 2011, p.250). Instead, the Belarusian refineries (Naftan and Mozyr) imported 19 million tonnes of Russian crude oil annually, paying the Russian domestic price and no duties. Their refined oil products were then re-exported to Europe (Table 1.2). Most Russian oil producers, including Surgutneftegaz, Rosneft, Sibneft, Lukoil and Slavneft, participated in the re-export business (Socor, 2007c). They gained access to refinery capacity, in short supply in Russia, and they paid the lower Belarusian export duties. These duties supported the Belarusian budget. This ‘unique system of sharing of oil rents’ was an informal institution that contributed to the decay of the Customs Union (Balmaceda, 2012, p.151). By the 2000s, this Russian subsidy annually transferred around four billion US$ to Belarus. Oil products from Belarus undercut the price of Russian oil products in the European market.

6.3.2 Transneft’s transit monopoly

In transit from the Caspian Basin, Transneft was the monopolist. Preserving this position as production there expanded became a goal of Russia’s foreign policy, and of Transneft, with the additional aim of maximising control over resource development in the region (Fuller, 1995).
In relation to Azerbaijan, control would be difficult to achieve. Azerbaijan’s close relations with Turkey, its distrust of Russia after the war in Nagorno-Karabakh, and its openness to IOCs, made alternatives to Russian transit realistic and desirable. The BTC pipeline project was underway in the mid-1990s. To Russia, any Russian participation in BTC would threaten the pursuit of maximum control. Due to Lukoil’s participation in the ACG field, some of its early oil did go through the Transneft system from 1997 (p.153) (Segodnya, 1997). The transit agreement stipulated an annual export of 2.5 million tonnes each by the State Oil Company of Azerbaijan (SOCAR) and AIOC until 2007. Instability in Chechnya regularly disrupted this transit (Romanova et al., 1997; Useinov and Klasson, 1999b; Useinov and Tutushkin, 1999). From SOCAR’s point of view, the route was not sufficiently reliable. Transneft, on its side, demanded a guaranteed throughput of minimum 12 million tonnes per annum (tpa) to construct a bypass. AIOC and SOCAR’s combined exports stood at around 7.4 million tonnes at the time (Osetinskaya, 1999).

Kazakhstan, too, prioritised the development of alternative export routes. Transneft responded slowly to Kazakhstan’s need for increased capacity (Nazarbaev, 1997; Embassy Astana, 2008), and refused to expand capacity on Kazakhstan’s main export route, Atyrau-Samara (Babali, 2009). Kazakhstan developed alternatives as production increased. Crude was shipped across the Caspian Sea to Iran for swapping, or to Baku and by pipeline to Supsa on the Black Sea. From 1997, Kazakhstan and China were in contact over a pipeline project.

However, Kazakhstan’s main new export route was to be the Caspian pipeline. Kazakhstan and Oman established the Caspian Pipeline Consortium (CPC) in 1992 to construct a

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49 In a swap, oil delivered in one place is traded in for oil sold somewhere else, to minimise transport costs.
pipeline from the Tengiz and Kashagan fields to Novorossiisk. Russia joined the project a month later (CPC, 2012). In the initial agreements, Transneft was designated pipeline operator. In 1996, several oil companies were invited to join the consortium (Table 6.4) (NiK, 2005j). The consortium was soon plagued by internal divisions. Western IOCs, especially Chevron and ExxonMobil, were often on opposite sides of the table from Russia, while Kazakhstan took care not to antagonise Russia.

6.4 Financial crisis and reform

Savelev was closely associated with Prime Minister Kirienko, and pursued a tough line with oil companies. After Kirienko’s dismissal in August 1998, few thought Savelev would last long in Transneft. By refusing to compromise with the previous management over the matter of privileged shares, Savelev discredited his predecessor sufficiently to remain in his position. After his failure to revert the privileged share consolidation, Savelev tried to stop, or at least reduce, payments to the privileged shareholders. He minimised profits. But this also reduced dividends to the state, and he was accused of denying the state of revenue (Vodyanova, 1999). To strengthen his position with the Primakov and Stepashin governments, Savelev moved BPS forward to project stage. Strongly against direct oil company ownership in BPS, Savelev found it difficult to access finance. Lukoil was particularly reluctant to finance BPS without minority ownership, especially as Transneft would not consider reduced tariffs for prospective consortium members (Reznik and Binchuk, 2000).

In September 1999, Savelev was abruptly discharged by First Deputy Prime Minister Nikolai Aksenenko and Fuel and Energy Minister Viktor Kalyuzhnyi. Prime Minister Putin was abroad and not informed. In an unexpected turn, Savelev barricaded himself in his
office. The door had to be opened with a circular saw to let the new Transneft president, Semyon Vainshtok, in. This reflected a lack of consultation with Putin, which later cost Aksenenko his job (Bekker, 1999; Vodyanova, 1999). Savelev was in turn accused of economic misconduct (Protsenko, 1998; Chernitskii, 1999; Romanova, L., 1999a; Martynov, 2007).

Vainshtok, an experienced Lukoil manager, got along well with Putin. In case Vainshtok remained too much an oil company man (NiK, 2004c), Putin appointed two former colleagues, Nikolai Tokarev as Transneft’s vice president and Aleksei Miller as chief of the Baltic Pipeline System Corporation responsible for BPS (Government Resolution No 1325, 1997; Gustafson, 2012, p.269-270). Both were promoted to head other companies when Putin became president a few months later (p.216; 248) (Makarkin, 2007b).

Vainshtok first undertook an inventory of oil in the pipelines, followed by inventories of the transport subsidiaries extending back to 1992 (Vremya MN, 1999). Transneft had never conducted inventories. For the first time, it was possible to quantify technical losses in the pipeline system (Samoilova, 2000). Oil companies had long been dissatisfied with Transneft’s loss volumes, whether the oil was used to keep the system going, or was lost to faults or theft. The inventory also provided the state with better access to information about Transneft’s infrastructure. Inside Transneft, inventories were a basis for modernising management practice and enabling institutional development.

6.5 A new approach? Transit avoidance

Oil prices picked up after the financial crisis, and oil production and export increased (Graphs 2.1 and 2.2; Table 6.2). The domestic market was flooded with crude, while there was insufficient export capacity. The Russian government now sought not only to develop
new export routes, but also to avoid transit and decrease reliance on troublesome routes. This would increase Russia’s bargaining power. Transit avoidance was seen to reduce transit risks and costs. The government also took regional development into account, and would like to capture more of the transport fees for the Russian state. New pipelines became an instrument to make Russian oil companies invest more in Russia, and extract more of their resources. Investment costs were of secondary importance. Developing new pipelines required considerable state capacity for policymaking and regulation in the oil sector. To preserve Transneft’s monopoly, the best solution from the state’s point of view would be to keep oil companies from owning pipelines. This would also underpin their dependence on Transneft for transport services. Transneft was now a source of infrastructural power to the state (p.54).

The Primakov government in early 1999 proceeded with plans for two oil ports on the Gulf of Finland, Primorsk and Ust-Luga, and a pipeline from Kirishi to Primorsk (Delovoi Peterburg, 1999b; 1999a; Slyusarenko, 1999; SPB Vedomosti, 1999). Transneft followed up with recommendations to reduce transit through post-Soviet states. In a report, Transneft estimated that Russian infrastructure would reduce the transit cost by up to ten US$/tonne (Strel'tsov, 1999). Oil prices were below 20 US$ a barrel. The estimate assumed that post-Soviet transit fees would remain significantly higher than the cost of Russian transit. After his appointment in August 1999, Prime Minister Putin became a strong supporter of the new oil export routes (Gustafson, 2012, p.268-269; Marochkin, 2012, p.20). Transneft now embarked on a series of large construction projects (Table 6.3). Pipeline transport to the oil terminals at Butinge in Lithuania (opened 1999) and Ventspils in Latvia remained the most cost-efficient route (Paramonov, 2001). To the oil companies,
cost-efficiency mattered most. Ventspils operated to capacity. Transport by rail through Estonia and Tallinn port was important, but more expensive. New pipelines would cost the oil companies more.

Putin supervised the BPS project in person. From his first day at Transneft, Vainshtok promoted BPS and resolved the deadlock over its financing. In early 2000 the oil companies were offered stakes in the BPS Corporation, with Transneft holding the majority share (Osetinskaya, 2000; Reznik and Binchuk, 2000; Gustafson, 2012, p.269-270). However, a few months later, this decision was reversed, and Transneft took direct charge of BPS, apparently at Putin’s initiative (Sapozhnikov and Ovchinnikov, 2000).

Vainshtok obtained government consent to a surcharge on all its tariffs to finance BPS, levied on companies regardless of their eventual use of the pipeline (Osetinskaya, 2000; IEA, 2002, p.90; 97). Only strong government support could neutralise the resistance of oil producers. The surcharges were paid. Media outlets close to the government condemned criticism of BPS and the surcharge, and presented such criticism as counter to Russia’s strategic interests (Inozemtsev, 1999).

Nevertheless, oil companies frequently complained about opaque tariff hikes (Druzenko et al., 2002; Oliphant, 2010): the increase in Transneft’s operating costs could not fully justify these tariff hikes (IEA, 2002, p.89). Their adjustment to rising tariffs was eased by the rising oil prices.

In relation to Ukraine, Transneft promoted projects that would diminish the oil stream through the congested Bosporus, but also jeopardise Ukrainian projects. Transneft’s
preferred route, Druzhba-Adria, was intended for Urals\textsuperscript{50} export to European and global markets (Solov'ev, D., 2000). Ukraine proposed the Odesa-Brody pipeline project to attract light Caspian crudes to Odesa for export to Eastern European markets as an alternative to Urals. The two projects competed for capacity in Druzhba. The Druzhba-Adria plan later failed due to environmental objections in Croatia (Table 6.3).

When in 2000 Ukraine withdrew initial approval of the Druzhba-Adria plan, Transneft urged the earliest possible construction of the Lysychansk bypass (Table 6.3) (NiK, 2004r). Vainshtok now tried to pressure Ukraine over Druzhba-Adria (Dmitriev, 2000; Aleksandrov and Orlov, 2001). The Ukrainian government refused to budge, and the Lysychansk bypass was opened in September 2001. Russian oil transit fell by 43.7 percent from 48 million tonnes in 2001 to 27.4 million in 2002 (NiK, 2004r).

On the oil products side, the main pipelines from Russia into Ukraine\textsuperscript{51} were transferred to Transnefteprodukt in 1993. Russia occasionally ceased deliveries to Ukrainian oil refineries to retaliate when Ukraine siphoned off Russian gas in transit to Europe (Romanova, L., 2000b). In addition, Ukrainian refineries suffered from Transnefteprodukt’s inferior pipeline maintenance. Rail transport was the only alternative to get oil products to market. This deflated refinery value during privatisation, and Russian companies acquired the refineries on the cheap (Eremenko, 2011). Dependence on Russia in Ukraine’s oil products sector increased.

6.6 A new approach? Transit monopoly

In the late 1990s it became harder to monopolise Caspian transit. It remained a foreign policy priority to control transit routes for Caspian oil, and this became part of a strategy to

\textsuperscript{50} The main Russian crude oil blend.

\textsuperscript{51} Groznyi-Lysychansk and Samara-West.
integrate Eurasia and tie the post-Soviet economies closer to Russia (Zhiznin, 2010). But Russia’s pursuit of control pushed post-Soviet states and IOCs to develop non-Russian transit routes. Kazakhstan’s policy was to achieve ‘balance’ in export routes; in practice, more non-Russian routes. Azerbaijan avoided Transneft wherever possible. Clearly, Transneft was not a suitable means of promoting international cooperation. From 1996 to 2011, overall pipeline capacity for crude export from the Caspian region increased from 16 to 115 million tpa. During this expansion phase, Russia retained around 80 percent of Kazakhstan’s oil exports (Socor, 2009b). This was in a context in which Kazakhstan’s oil production was rising by 10 percent annually (NiK, 2002f).

The BTC pipeline would enable Azerbaijan to export oil to the Mediterranean and global markets. Lukoil would have liked Russia to participate in BTC, but failed to muster support for the idea at home (p.167). In 2001, Lukoil then proposed that Transneft could develop a connection to BTC as an additional export route (Useinov, 2001; 2002). This was also ruled out by Transneft and the Russian government (Butrin, 2001a; Upstream, 2001; Useinov, 2002; Egorova, 2004).

Transneft’s relations with Azerbaijan had deteriorated due to its refusal to bypass Chechnya on the Baku-Novorossiisk pipeline. Eventually, in 2000, Transneft built the bypass (Osetinskaya, 1999), but refused to expand capacity to meet Azerbaijan’s needs. Transneft made expansion contingent on Azerbaijan’s commitment of large volumes to the pipeline. Such a guarantee would threaten the viability of the BTC project, and Azerbaijan predictably rejected the terms (Sborov, 2000).

Transit relations continued to deteriorate (Mishin, 2000; Vedomosti, 2000). Azerbaijan exported less oil through Novorossiisk than previously agreed (Buyantseva, 2000;
Buyantseva and Osetinskaya, 2000). To oil producers in Azerbaijan and Kazakhstan, Transneft’s export routes came with a price discount, because Transneft did not operate a ‘quality bank’ (Useinov and Klasson, 1999a). A quality bank arrangement sets a benchmark quality for oil in the pipeline, and shippers of higher quality oil are compensated for reduced oil quality and market price.\textsuperscript{52} Without such compensation, Azeri and Kazakh crude oil improved oil quality in the Transneft system, resulting in an inflated market price for other producers. As the price differential was absorbed by Russia, Azeri and Kazakh producers were in effect obliged to share their rents with Transneft. Part of the Caspian Pipeline’s attraction was that it would operate a quality bank. Transneft’s policy to allow equal access to Russian producers also had negative consequences for Kazakhstan and Azerbaijan. Russian companies were allocated transport quotas on the basis of their domestic production rates, while non-Russian shippers had lower priority. Oil from Kazakhstan was therefore discounted by up to 10 percent by the time it had reached Europe (Dodsworth et al., 2002, p.10,24).

In 2000, Kazakhstan still had two main oil export routes. Most was transported through Russia, by rail or pipeline, to the Baltic and Black Seas. Transneft’s policy was to remain essential to Kazakhstan’s oil export (Ivanitskii and Gavshina, 2008). Kazakhstan could to a certain extent develop new routes while maintaining established ones. But in practice, it was complicated to access new routes without antagonising Russia. To ensure Russia’s goodwill, Kazakhstan delayed development of the China pipeline project as long as Yukos’s Angarsk-Daqing pipeline project was on the table in 2000–02 (NiK, 2006b).

\textsuperscript{52} Crude oil quality is normally determined by sulphur content and gravity, and influences price considerably.
The new Caspian pipeline ran into a string of problems. Construction costs soared, and the consortium members issued additional loans to CPC. The pipeline opened in 2001 with maximum throughput of 20 million tpa. A planned expansion would raise throughput to 67 million tpa, of which 50 million tonnes would come from Kazakhstan, and 17 from Russia (NiK, 2002h). But Russia now made expansion contingent on a tariff increase and reduced interest rates on the consortium members’ loans to the consortium. Russia accused oil producing CPC members of using low tariffs (paid by themselves as customers) and high interest rates (paid to themselves as lenders) to prevent the consortium from accumulating taxable profits in Russia (Mazneva, 2007; Surzhenko, 2007). The Russian state lost a revenue source.

Russia had lost control over pipeline tariffs when CPC members decided in 2000 to retain joint operatorship and thereby collective command and control (NiK, 2002e). Transneft remained the operator, but it was a technical function (Reznik, 2000a). It had also lost control of the CPC terminal’s operations to Lukoil (Reznik, 2000b). Transneft now demonstrated the cost of joint operatorship to CPC. The Caspian pipeline was intended to connect to Transneft’s system (the Tikhoretsk-Kropotkin leg) to maximise capacity and give Russian producers access to the Caspian pipeline. After 2000, Transneft refused to finance the connecting leg from its own pocket. In turn, Russian producers refused to pay Transneft’s suggested surcharge to fund the connection. The connection was not built, and CPC operated below capacity in the first years of operation (Druzenko et al., 2002). By 2004, a cumbersome and expensive rail connection was being used instead (NiK, 2005i; 2005j).
Vainshtok also conducted a campaign against the Caspian pipeline (Chernitskii, 2001; Dmitriev, 2002a). If successful, the Caspian pipeline would show that it was possible and attractive to develop private pipelines in Russia. The Caspian pipeline also competed with Transneft for light Kazakhstani crude (IA FK-Novosti, 2009), just as higher-grade producers were moving away from its pipelines (Reznik, 2001). CPC came to be seen by the Russian government as a loss-making, unsuccessful venture (NiK, 2004d). It was compared with BPS, which finished on time and budget (Bekker, 2002).

By 2000, the expansion of the Atyrau-Samara pipeline had become even more urgent to Kazakhstan. Insufficient export capacity would soon slow down development. Additives and extra maintenance increased capacity to 15–17 million tpa, but to increase it to 25–30 million tpa, Atyrau-Samara would need investment and expansion. In 2002, Russia preliminarily agreed to this. Transneft then made implementation contingent on Kazakhstan’s reserving a corresponding volume for the route (Vainshtok, 2000; Vin'kov and Rubanov, 2006).

6.7 The new coalition

In Putin’s first presidential period (2000–4), a stronger state drove Transneft’s development. Transneft became more important as a tool of the state, and it was used both to facilitate national development and keep oil companies under control. It represented infrastructural power that compelled oil companies to share rents, and remain dependent on the state.

The export capacity deficit was affecting Russian oil companies increasingly by 2001–2. Transneft was a source of frustration. Its new pipeline projects developed slowly, while oil companies were not allowed to build their own. They had very little influence on routes
and overall capacity. The allocation of transport volumes to each company was non-transparent and unpredictable (Tutushkin, 2008b), and the capacity deficit contributed to opacity.

In 2002, Lukoil proposed a new pipeline to the Barents Sea, attracting interest from Sibneft, TNK and Yukos (NiK, 2002e). The plan was to bring West Siberian crude to Murmansk. Unlike other ports in European Russia, Murmansk could accommodate large tankers for direct exports to North America. Transneft’s support was essential to the project (NiK, 2002e). Transneft reacted negatively. A private Russian pipeline consortium would infringe on its monopoly.\(^5\) In Transneft’s view, the Murmansk project would undermine its possibility of financing new pipelines through special tariffs imposed equally on all customers, because it would provide an example of avoiding the entire system. Transneft’s top management also emphasised that all oil companies had equal access to its network. This was only guaranteed if all companies participated. A pipeline that suited the four largest exporters’ needs therefore undermined the smaller companies. By extension, letting the four major oil companies, all private, expand their profits and independence could turn them into serious challengers to the current ruling coalition.

Transneft’s vice president, Sergei Grigorev, accused the participants of attempting to ‘evade state control’, which would lead to

> the disintegration of Transneft, a catastrophe for the country [because] the state would inevitably lose control with the oil sector. (NiK, 2003e)

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\(^5\) The few existing privately owned pipelines were feeder pipelines for terminals and refineries, used by only one company.
Vainshtok was also dismissive: ‘Why would they want a private pipeline?’ (NiK, 2005b). The issue was settled. Energy Minister Igor Yusufsov requested further project elaboration in Transneft, where it was buried (Vin’kov et al., 2004). Russian oil exporters had to use BPS and Primorsk.

The Murmansk project and Yukos’s China pipeline project were the most serious challenges to Transneft’s monopoly. In both cases, Transneft promoted alternatives, to Primorsk not Murmansk, and Nakhodka instead of Daqing, that maximised pipeline length on Russian territory (Sim, 2008, p.70). The management also made a serious effort to ensure that these would be the last challenges to its monopoly. Vainshtok and other top managers used every occasion to declare that state-owned pipelines guaranteed equal access for all, and served the wider interests of the sector. On this, Transneft had the government’s support. In 2002–3, Mikhail Kasianov’s government (2000–4) protected Transneft as a matter of principle and to an extent not previously seen (Kanevskaya, 2003). The continued need for a pipeline monopoly was enshrined in the new Energy Strategy (Energeticheskaya strategiya, 2003, p.43). By maintaining the monopoly, the government also protected the privileged extraction of rents through Transneft.

But the state did not have complete access to Transneft, especially not to its rent streams. The most contentious issue remained the dividends on the state-owned ordinary shares (Table 6.1). The issue was repeatedly reopened by the conflict over the privileged shares. These were sequestrated, partially or wholly, by the General Procurator several times after 1999. The conflict abated only after most of the privileged shares changed hands in 2001 from Transneft’s old management to people closer to the ruling coalition (NiK, 2004b). With that problem solved, Vainshtok tried to reduce dividend payments to the state, too, to

One informal rent stream now found a more formal channel. Pipeline inventories had quantified the volume of technical oil in the system. It appears to have been Transneft’s regular practice to sell this oil, which the oil companies counted as lost. Transneft later claimed that the income derived from sales of technical oil from 2001 was invested in new pipelines (Ivanova et al., 2008). From 2005, it was donated to charity (p.218; Table 6.1).

Vainshtok took care to emphasise how Transneft was only a loyal instrument of the state, in statements like

If we are told tomorrow [by state agencies] that [the public lottery] Sportloto will do this [assign export quotas to oil exporters], then it will be that way. (Reznik, 2002b)

By placing responsibility for energy policy firmly with the government, he understated Transneft’s influence, and emphasised the significance of the formal institutional framework. This was supplemented with declarations of personal loyalty to Putin. It became difficult for oil company managers to criticise Transneft.

6.8 A foreign energy strategy

Beginning in 2001, overall export capacity increased. Transneft retained the bulk of domestic oil transport and crude export within its network during the oil boom (Tables 6.2
This bolstered the monopoly’s legitimacy and demonstrated its relevance as state-owned infrastructure. Export through transit states stagnated or ceased altogether. New oil terminals appeared in Russia, and opening even more would continue to be a priority (Energeticheskaya strategiya, 2003, p.42-43). The emphasis on transit avoidance in practice made it difficult to achieve the target of Russia’s foreign energy policy, the promotion of a single transport infrastructure with non-discriminatory access in the post-Soviet region (Energeticheskaya strategiya, 2003, p.24).

Russian government spokespeople often said that BPS and Primorsk terminal were not intended to displace existing export routes. But they used every opportunity to mention how BPS and Primorsk would increase Russia’s revenue (Vasil'ev and Suchkov, 1999). After BPS opened in December 2001, the emphasis shifted. Ventspils and Butinge’s owners came under pressure from Transneft to allow Russian control of export infrastructure at reduced prices. The government now differentiated among export routes according to their share of Russian involvement in ownership (Kravchenko, 2003b). This policy was echoed by Transneft’s vice president, Sergei Grigoriev (Dmitriev, 2003).

The Latvian and Lithuanian Druzhba branches, with a parallel diesel pipeline, were 66 percent owned by Ventspils Nafta and 34 percent by Transnefteprodukt. Ventspils Nafta also owned the Ventspils terminal and a shipping company. After BPS opened, crude export through the Baltic ports fell by about 10 percent (NiK, 2002b).

A year later, Transneft first reduced, then turned off the flow of crude to Ventspils (Nagla, 2012). Ventspils Nafta’s transshipment of crude oil decreased from 15 million tonnes in 2001 to approximately 3 million in 2003 (NiK, 2004m). This was first blamed on technical limitations, but later the background was given as a lack of Russian capital interest in
Ventspils (NiK, 2003g; 2005c). Ventspils now had to rely on oil products. In the 2000s, approximately half of Russia’s oil products export was shipped through the diesel pipeline (NiK, 2003n; 2007d). Transneft offered to invest more in the branch pipeline in return for 50 percent of Ventspils Nafta. The Latvian government, which controlled 34 percent of Ventspils Nafta, found the offer too low (Dmitriev, 2003; Vedomosti, 2003; NiK, 2006d), and in the end rejected it (NiK, 2006h). Russian oil companies like Lukoil, which previously had seen Ventspils Nafta as an attractive terminal (p.160), now lost their interest in a minority stake (Pravosudov, 2003). After the Ventspils route was discontinued, more oil was shipped through Butinge, which only had a capacity of ten million tpa (NiK, 2004j). Butinge had been established to import North Sea oil to the Mažeikiu refinery, but refining and exporting Urals from pipeline was more profitable. Lukoil and Yukos were the main suppliers. Yukos obtained a 53.7 percent stake of Mažeikiu Nafta in mid-2002 (NiK, 2002c; 2003b).

BPS capacity expanded from 12 million tpa in 2001 to 75 million in 2009 (Table 6.3). This was costly; 460 million US$ was spent on the first and most expensive part of the project (NiK, 2002g; 2011j). BPS became a model for transit avoidance also in oil products export. Transnefteprodukt embarked on a new export pipeline in 2003, the Sever. Opened in 2007, it delivered oil products to Primorsk and reduced the flow of oil products to Ventspils (NiK, 2003h; 2007d; 2012e).

BPS could also be used to pressure Belarus. In 2001, Russia withdrew from the bilateral free trade agreement and opened negotiations on a new one. The end of transit to Ventspils also reduced the flow to Belarus. This affected exports from Lukoil, Surgutneftegaz,

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54 It was acquired by the Vitol Group in 2006.
55 Vtorovo-Yaroslavl-Kirishi-Primorsk.
Rosneft and Yukos. In a letter to Prime Minister Kasianov, company heads urged him to keep the route open (Nikolaev, N., 2003). This had no effect. Alekperov called the abrogation of the free trade agreement ‘mistaken’ (Pravosudov, 2003). However, the free trade arrangement for oil, which shared rents between Belarus and Russian companies, was extended through 2006.

Ukraine’s Odesa-Brody pipeline was also completed in 2001 (Balmaceda, 2008, p.92). It offered a bypass of both Transneft and the Bosporus (NiK, 2004p), but the Ukrainian government had departed from standard practice and failed to secure oil supply before it opened, and made little effort to divert existing flows (Balmaceda, 2008, p.93). Azerbaijan and Kazakhstan expressed some interest, but did not commit oil (NiK, 2002f; Savushkin, 2003; NiK, 2004p).

A planned connection between Brody and Plock in Poland failed to materialise. In consequence, the main trunk of the Odesa-Brody line stood empty in 2001–4 (Savushkin, 2003). Russia suggested in 2003 reversing Odesa-Brody in order to take oil from Druzhba at Brody to the Odesa terminal, but the Ukrainian government was against it (Gavrish, 2003; Ignatova, 2003b). Reversing the pipeline made some sense to Russian oil companies, especially TNK-BP. But the high cost of reversal accentuated the political overtones in Russia’s machinations (NiK, 2004i). A stalemate ensued (Butrin and Sapozhnikov, 2004).

Kazakhstan proceeded to develop non-Russian routes, especially the China pipeline project from 2003 (Atasu-Alashankou). KazTransOil asked the Russian oil companies with suitable production, Yukos, Lukoil and Rosneft, to join the project (NiK, 2003k). They stayed out.
Expansion of the Caspian Pipeline was still an unresolved issue (NiK, 2005). In Russia, it was now often suggested that Transneft manage the government’s stake in the consortium. Transneft’s management appeared reluctant, replying on statements like ‘[CPC] would be a burden’, but always qualified by the standard assertion that any government decision on the issue would be carried out loyally (Derbilova and Bekker, 2006; Vin'kov and Rubanov, 2006).

6.9 The new stability

The Yukos affair strengthened state support for Transneft. Its leverage over oil companies increased, especially because they represented less of a challenge to the institutional framework. Yukos had been a vocal opponent of the pipeline monopoly, but it was dissolved. The monopoly was further strengthened in 2007 when Transnefteprodukt was reorganised as a Transneft subsidiary. The merger took place against Vainshtok’s wish (NiK, 2008b). Transneft received 16,400 km of oil product trunk pipeline in Russia, and pipelines in Ukraine, Belarus and Kazakhstan (Transnefteprodukt, 2009, p.23). As a result, Transneft in Russia resembled an updated version of Glavtransneft, and it increased in relevance as a foreign policy tool.

In 2001, the Finance Ministry had made it obligatory for state-owned companies to adopt International Financial Reporting Standards by 2005. This contributed to transparency, and institutionalisation, of Transneft’s informal rent stream. Transneft began publishing annual reports, the first in 2005. The proceeds from the sale of technical oil were donated to charity. This went hand in hand with changes to formal rent streams. In 2005, the State Property Ministry prevented dividends being paid for 2004 to force an increase over the 2003 level (Fokina, 2006). In effect, it now claimed a greater share of Transneft’s rents for
the state. Transneft was left without a functioning Board for over six months as a consequence (Fokina, 2006). The Ministry backed down at the last minute to avoid a situation in which the privileged shares would be converted into ordinary shares, and dilute state control (Fokina, 2006). Transneft now minimised profit by retaining much of it in its subsidiaries (Derbilova, 2006; Fokina, 2006). The argument was that the subsidiaries owned the pipelines, but the aim was clearly to reduce dividends (Surzhenko and Reznik, 2008). This irritated the State Property Ministry, which again found dividends payments to the state short of target (NiK, 2004b). Their irritation may have grown when they learned that the privileged shares were most likely held by people close to the ruling coalition. Transneft was supported by the Ministry for Economic Development and the Industry and Energy Ministry. Transneft prevailed, and began in 2006 to channel more of its profits into business development (Table 6.1) (Transneft, 2008; 2009b; 2010; 2011d; Bloomberg/The Moscow Times, 2009).

There was also increasing openness around tariff calculation. Transneft asked the Federal Tariff Service (FTS) to approve a transparent formula for price formation (Transneft, 2006, p.25; 2007, p.23). It applied only to the base price. The exemption was the cumulative surcharges, which appeared frequently and at short notice (Transneft, 2006, p.27; 2007, p.25; 2011c; 2011b; 2011a; NiK, 2009a). Quarterly transport schedules improved transparency further (Surzhenko and Reznik, 2008).

Before 2005, Transneft had had the government’s support in its opposition to a quality bank system. Deputy Prime Minister Viktor Khristenko surprised the oil industry when he stated in 2003 that ‘the quality of crude has not deteriorated from being mixed’ (NiK, 2003e). There was widespread support for preserving the status quo, especially as
producers of lower-grade crude were mostly state or regionally owned. But in 2005, the pressure to adopt a quality system strengthened. Rosneft now owned Yuganskneftegaz, which produced higher quality oil. President Putin complained that Urals regularly traded at a 4–5 US$ discount compared to Brent blend (Stratfor, 2005). A quality bank in Transneft’s system could make the price gap narrower. Vainshtok argued the case against: ‘if we say we have a unitary state, why should Tatneft and Bashneft (…) suffer?’ (NiK, 2007e). In the end, there was no quality bank.

The project of a Russian pipeline to China, first pursued by Yukos, progressed from 2003 in an altered form as a Transneft project (Bradshaw, 2014, p.200-201). Putin and government ministers followed the project closely. Construction was supposed to begin in April 2006. Two days before, Putin, spontaneously and in public, ordered the pipeline route moved to the north of Lake Baikal, thereby lengthening it by 500 km (Kolesnikov, 2006). Inevitably, the pipeline’s cost almost doubled, from 6.65 billion US$ to 11.2 billion, not least because Vainshtok asserted that the pipeline would still be delivered on schedule. Construction proceeded in a rush (Martynov, 2008). Cost estimates continued to rise, to 14.45 billion US$ by November 2010 (Gavshina and Reznik, 2010). Vainshtok failed to get his contract in Transneft renewed in September 2007 (Rebrov, 2009b). Shortly afterwards, Vainshtok and his management were accused of misusing funds during ESPO construction (Surzhenko and Reznik, 2008; NiK, 2010c).

In October 2007, Nikolai Tokarev was appointed head of Transneft. He announced early on that the ESPO pipeline would be completed a year behind schedule (NiK, 2008c).

Tokarev came to Transneft from Zarubezhneft. According to media reports, he had risen to the rank of major general in the KGB. He had worked with Putin in the KGB’s Dresden
office in the 1980s (Shvedko, 2002; Gordeev, 2007; Makarkin, 2007b) and in the Presidential Administration in the mid-1990s. After his short period in Transneft in 1999–2000, Tokarev headed the state-owned oil company Zarubezhneft. He was seen as close to First Deputy Prime Minister and Rosneft Board Chairman Igor Sechin (Makarkin, 2007b). Tokarev knew Gennadii Timchenko of the oil trader Gunvor quite well (Surzhenko and Reznik, 2008). Timchenko was rumoured to manage Putin’s private business interests in oil and gas, but no business link has been substantiated (Bernstein, 2007; Harding, 2007; Quiring, 2007; Bernstein, 2008; Kupchinsky, 2009). With Tokarev, a management team from Zarubezhneft came to Transneft (Makarkin, 2007b; Transneft, 2008, p.11-14).

The Audit Chamber began investigations in 2008 of ESPO expenditures (Butrin, 2008). It concluded that a substantial part of ESPO contracts had been awarded without tender, but the misuse of funds on Transneft’s part was less significant than alleged (Rebrov, 2009b; Schetnaya palata, 2009; Bratersky, 2010). The audit did not lead to charges at first, but its full text was not disclosed (NiK, 2010c). In March 2010, the head of the Audit Chamber, Sergei Stepashin, reported to the Duma that an unspecified company management had been indicted following the ESPO investigation (Stenogramma zasedaniya 24 marta 2010 g., 2010). In later media leaks, Vainshtok and two current Transneft manager were implicated in the case (NiK, 2010c). By now, the transparency campaigner and Transneft shareholder Aleksei Navalnyi had published documents on his blog indicating gross irregularities in ESPO construction (Naval'nyi, 2010). It is still difficult to calculate how much informal rent was extracted through the ESPO project.

But ESPO’s finance package also improved financial transparency in Transneft. In 2009 it issued ruble-denominated bonds, in the largest-ever offering by a Russian company
totalling 35 billion rubles or 1.1 billion US$ (Bloomberg/The Moscow Times, 2009; NiK, 2009a). In the investor information package, Transneft detailed its charity donations from the sale of technical oil in 2005–8. They were enormous in the Russian context, over a billion rubles annually, peaking in 2007 at 7.2 billion (Malkova, 2009). They were also larger than the dividends issued to shareholders in the same years (Table 6.1). Transneft was Russia’s largest corporate charity donor in 2007 (Kaz‘min, 2012). This informal rent had been channelled into charities like a fund for veterans of the Federal Guards Service (Malkova, 2009). In May 2010, Navalnyi obtained a court order to force the police to investigate undisclosed beneficiaries (Malkova, 2010b; Oliphant, 2010). Beginning in 2011, Transneft disclosed information on charity donations (Transneft, 2011e). Calculations by this author show that in 2011, Transneft contributed just above 8.5 billion rubles to charity, or around 204 million Euro/264 million US$. Donations went to a wide range of organisations and individuals throughout Russia. In effect, Transneft was channelling informal rent via a CSR programme and enhancing the state’s infrastructural power. Transneft essentially performed a quasi-fiscal service (p.39) for the state, by collecting considerable rents through excess transportation costs extracted from oil companies, and directing them into selected groups and individuals in the elite and the wider population.

In addition to charity, in 2009 Transneft gave 100 million rubles to the new Continental Ice Hockey League (Transneft, 2010, p.39), founded in 2008 by several major companies, mostly state owned. Transneft owned a 11.76 percent stake (Dospekhov, 2008; Transneft, 2010, p.39).
Tokarev fended off a 2010 government proposal to privatise 25 percent of Transneft (Butrin, 2010; Kommersant, 2010; Korytina, 2010; Oliphant, 2010; Tovkailo and Biryukov, 2010). There were, however, indications of financial overstretch in Transneft, which suggested a JV model for the construction of a new pipeline (Zapolyarye–Purpe) (Starinskaya, 2010). In the event, it was easier to agree on a more indirect burden sharing model (NiK, 2011e).

6.10 Expansion?

In 2009, the new Energy Strategy emphasised transit state dependence as a foreign energy policy problem (Energeticheskaya strategiya, 2009, p.35). Transit avoidance had priority (Energeticheskaya strategiya, 2009, p.48). Transneft’s monopoly made customers look for alternatives. In Belarus and Ukraine, deprived of a part of Russia’s oil export, Russia’s transit avoidance opened excess capacity in the downstream sectors. Their governments now sought, and increasingly secured, oil from other suppliers like Venezuela and Azerbaijan.

6.10.1 Transneft control on Baltic routes

As of 2005, Butinge was the largest foreign terminal for Russian crude export, but the volume was only around 5 million tpa (NiK, 2006l). However, Mažeikiu Nafta came up for sale again following the Yukos affair. The Lithuanian government, which controlled 40.6 percent of the refinery, used its right of first refusal to take control of Yukos’s share, and offered 84.3 percent up for re-privatisation (Rebrov, 2005). There were several offers, of which the best came from KazMunaiGaz and the Polish company PKN Orlen, the former’s slightly higher than the latter’s (Rebrov, 2005; Shevel’kova, 2005; Rebrov, 2006; 2008b). An offer from TNK-BP was lower. Lithuania’s most important condition was a guarantee
of oil deliveries to the refinery. KazMunaiGaz promised to deliver 12 million tpa in the next ten years. As Kazakhstan’s crude export reached a maximum on existing routes in autumn 2005, its problem was not supply, but transit capacity (NiK, 2006j). KazMunaiGaz had a transit agreement with Transneft for the necessary volumes. Transneft, however, quickly and unilaterally abandoned the agreement, possibly on order from the government (US Office Almaty, 2006). Transneft now required KazMunaiGaz to secure an amendment to the bilateral agreement between Russia and Kazakhstan which guaranteed transit of the increased volume through Russia (Rebrov, 2005; Shevel'kova, 2005; Tutushkin, 2005). KazMunaiGaz had to retract its offer, and in consequence it remained completely dependent on Transneft’s goodwill on this route.

PKN Orlen acquired Mažeikiu Nafta in May 2006. Lukoil, Surgutneftegaz, Yukos (later Rosneft), Tatneft and TNK-BP continued to supply crude to the refinery and terminal. But in July 2006, one of the two pipes on the Baltic Druzhba branch broke down inside Russia, stopping the flow of oil to Butinge (Nagla, 2012). The pipeline was not irreparable, but repair was too costly for Transneft. There was a possibility to redirect oil temporarily from BPS to Butinge, but Transneft ruled this option out (NiK, 2006h). Energy Minister Khristenko also ruled out repairs, advising Russian companies to use Primorsk to supply Butinge by ship (NiK, 2007b). This they did.

In the period around the Druzhba rupture, Sechin may have overruled Transneft and ordered TNK-BP and Lukoil not to supply Mažeikiu Nafta (Embassy Moscow, 2006). Rosneft cancelled supplies to Mažeikiu the month before the accident (Embassy Vilnius, 2006). Whatever the background, increasing reliance on BPS, instead of reconstructing the Baltic Druzhba branch, was a political decision (Kezik, 2007b).
6.10.2 Belarus and BPS-2

By 2006, transit relations with Belarus had grown problematic and erupted into full-blown crisis when Gazprom in January 2007 increased the gas price to Belarus (p.262). The following settlement introduced a Russian export duty on oil to Belarus. In response, Belarus introduced a transit duty, which Transneft refused to pay. Belarus then stopped around 79,000 tonnes of oil en route to Europe. Russia stopped all exports through Belarus in return (Khalip, 2007; Lavrov, 2007; Tomashevskaya et al., 2007). In the next settlement, Belarus cancelled the new transit duty and returned the oil, while Russia granted Belarus a discount on the export duty, which would decrease gradually until 2010, when the agreement expired (Anishyuk, 2010). Rents were again shared and transit resumed. Russia’s reputation as a reliable oil supplier to Europe suffered.

The crisis accelerated progress on a new Transneft project, rumoured to have Sechin’s support. A second pipeline to the Baltic Sea, BPS-2, linking Druzhba to Primorsk, would allow export oil to bypass Belarus altogether. The planned throughput was 50 million tpa (Savushkin, 2007), and the cost around 4 billion US$ (Socor, 2012b). BPS-2 could reduce transit volumes also through Ukraine. Planning started in February (Gorelov and Tomashevskaya, 2007; Kulikov, 2007). Vainshtok indicated an 18-month construction period, declaring that Primorsk would be expanded if necessary. While Vainshtok preferred Primorsk, regional interests suggested Ust-Luga, to the south of St Petersburg (NiK, 2008d). The tide for a while turned against BPS-2 (NiK, 2008d). There were doubts about whether the pipeline could be filled. BPS-1, as the ‘old’ BPS was now called, was utilised below capacity. In April 2008, the Energy and Industry Ministry said demand for BPS-2 was insufficient, and recommended the project be shelved (NiK, 2008d).
In May, shortly after becoming prime minister, Putin declared that BPS-2 would be constructed, and terminate at Ust-Luga. The Transport Ministry, the Russian Railways and Gunvor, Timchenko’s oil trading company, were reportedly in favour of Ust-Luga (NiK, 2008d; 2011j). Gunvor seems to have been close to establishing control over Ust-Luga’s oil terminal at this point (NiK, 2009b). When the BPS-2 plan was finalised in November 2008, Ust-Luga was the endpoint, but overall volume projections were revised downwards, from 50 million tpa with an option of 75, to 30 million tpa with an option of 50 (NiK, 2011j). This was closer to actual demand for transport, but still excessive.

There was a new oil transit crisis in Russian–Belarusian relations in January 2010. The two states again failed to reach a new agreement when the old one expired (Anishyuk, 2010). Russia may have pushed to get Russian oil companies to finally take over Belarus’s refineries (Gabuev et al., 2010a; Socor, 2010). The settlement in the end reduced Belarus’s duty free oil import quota to 6.3 million tonnes for domestic consumption. Extra volumes would be subject to full export duties (Bilateral Protocol of the Government of the Russian Federation and the Government of the Republic of Belarus, 2010, quoted in Dyner, 2010; Yafimava, 2011, p.251 fn. 138). This was costly for Belarus, which now sought contracts with Venezuela (through swaps) and Azerbaijan (NiK, 2011h).

BPS-2 opened officially in March 2012 (NiK, 2011j). Due to the difficult seabed conditions, Ust-Luga would likely have to undergo a prolonged test regime of several months (NiK, 2012d). BPS-2 would therefore operate below maximum for an extended period, incurring losses for Transneft (NiK, 2012d). It was alleged that an inexperienced subcontractor, affiliated with Timchenko, had failed to address the fraught seabed conditions. The bulk of Ust-Luga’s facilities was controlled by structures affiliated with
Timchenko (NiK, 2012d). By now, there was considerable excess capacity in export pipelines, so overall volumes were unaffected.

In 2011, on the tenth anniversary of BPS-1’s opening, Transneft’s company magazine celebrated it as ‘the route of independence’. Special attention was given to the threat to Russia’s economic independence of transit through Latvia and Lithuania. Their ‘monopoly position’ had, against the background of their Nato accession, given these states an opportunity to blackmail Russia economically and politically. The article credited Putin for his role in moving the project forward (Marochkin, 2012, p.15).

As it appeared in March 2012, BPS-2 would take volumes from BPS-1, as it added excess capacity on export routes. Losses were likely. Primorsk and Ust-Luga competed for crude oil and diesel deliveries (NiK, 2012e). The rule of thumb for transit pipelines held true: alternative routes can be expensive (Stevens, 2009, p.20). However, most of this expense was financed by tariff surcharges and therefore covered by oil companies. Some of these resources may have been distributed within the ruling coalition as lucrative construction and service contracts. BPS-2 strengthened Russia’s position in negotiations with Belarus and Ukraine. Belarus’s opportunities to take a share of Russian oil rent through transit and re-export were curtailed. Transit volumes through Belarus and Ukraine decreased in 2011, but Druzhba did not become redundant (Table 6.2) (NiK, 2011j). Russian oil exporters still relied on Druzhba for export, especially to Central European refineries (NiK, 2011j).

6.10.3 Ukraine

Transit through Ukraine declined most. Russian crude transit decreased by about 25 percent from 2006 to 2007 (Gorelov and Tomashevskaya, 2007), and by another 11.6 percent in 2010–2011 (Table 6.2) (Socor, 2012b). Transit relations had by then been
disagreeable for over a decade, especially over the Odesa-Brody pipeline. The pipeline had opened in reverse in September 2004, ahead of the November elections (Ivzhenko, 2004; NiK, 2006e). The Ukrainian and Polish governments meanwhile worked to attract oil from Kazakhstan. Chevron was the most interested producer (Embassy Warsaw, 2005). While Kazakhstan looked for non-Russian transit routes to Europe, neither Kazakhstan nor Chevron wanted to antagonise Russia over Odesa-Brody, a route they had not asked for in the first place.

Ukraine also explored the possibility of supplying Czech refineries through the Slovak part of Druzhba (Embassy Bratislava, 2006c; 2006b). In 2006–7, Russia piled on the pressure to get Slovakia to agree to a Gazprom Neft takeover of Yukos’s 49 percent stake in the Slovak pipeline company Transpetrol (Embassy Bratislava, 2006a). Ukraine’s Slovak route failed to materialise. But it remains questionable whether Ukraine’s governments in this period could commit to a Polish extension, or any outlet option, while the flow direction in Odesa-Brody was caught up in a struggle among politicians and their business interests (cf. Embassy Warsaw, 2006; Balmaceda, 2008, p.93-95). In 2009, Ukrtransnafta asked Transneft to allow a transit pause so that it could conduct a 48 hour trial flow in the original direction. Transneft refused. Tokarev called it a ‘risky venture’ (Rebrov, 2009a). BPS-2 would in any event redirect oil flows away from Ukraine (Transneft, 2009c; Zuev, 2009). When the volume of oil transiting out of Russia decreased, Belarusian and Ukrainian refineries in 2011 contracted Azeri oil, and Odesa-Brody was put into operation in the original direction (NiK, 2011h; 2011j; 2012a).
6.10.4 Defending Transneft’s share of Caspian transit

Azerbaijan planned to stop exports through Novorossiisk completely after BTC commenced operation in 2005. Baku-Novorossiisk was a reserve pipeline, covered by a 5 million tpa transit agreement (NiK, 2011b). By 2011 it was operating at a loss to Transneft, and Azerbaijan proposed revising the volume downwards to 1.5 million tpa (NiK, 2011b).

By 2006, Kazakhstan had access to four major export routes: BTC; the China pipeline that had just opened; CPC; and Atyrau-Samara (Table 6.6) (NiK, 2006n). Russian companies found the China pipeline to be a cost-efficient alternative to rail export to China. Rosneft tried to export 1.2 million tonnes oil to China in 2007 through Kazakhstan, and applied to Transneft for access to the adjoining Russian pipeline. Transneft declined, citing the lack of a regulatory framework (Derbilova, 2007; NiK, 2007e). Rail transit continued (NiK, 2006b). The Kazakhstan–China pipeline was completed in 2009, with a 10 million tpa maximum throughput (NiK, 2009d).

After BTC opened, Kazakhstan seemed close to approving the trans-Caspian pipeline project on several occasions, but was reluctant to make a final decision. However, a trans-Caspian route did not have to be a pipeline. Kazakhstan and Azerbaijan started in June 2006 to develop a tanker transport system that took light Kazakhstan crude to Baku and BTC (Komsomol'skaya Pravda Kazakhstan, 2007). This was operational in October 2008 (Guliyev and Arkhrakhodjaeva, 2008, p.16). Kazakhstan also started planning a larger Kazakhstan-Caspian Oil Transport System in 2006, with a feeder pipeline in Kazakhstan and an expanded fleet (Butyrina, 2007; KazMunaiGaz, 2011; KMG-Transkaspii, 2012). In addition, KazTransOil acquired the Batumi oil terminal in Georgia in 2006–8, while KazMunaiGaz acquired the Romanian Rompetrol company in 2007–8 (NiK, 2007f; Socor,
2007b; 2008; KazMunaiGaz, 2012b). The latter acquisition gave Kazakhstan access to considerable refinery capacity and an extensive distribution network.

But while Kazakhstan developed non-Russian export routes, Transneft remained unwilling to expand Kazakhstan’s export capacity through Russia. In addition to Transneft’s denial of additional capacity to Butinge, Transneft seemed to delay capacity increases in the Atyrau-Samara pipeline until BPS was fully developed (NiK, 2005e). The BPS-2 project propelled the expansion process for Atyrau-Samara forward. Following years of little or no progress, an agreement on a 25 million tpa expansion was finally reached in May 2008 (NiK, 2008d; IA FK-Novosti, 2009; Rebrov, 2009a). Atyrau-Samara would feed BPS-2 (NiK, 2008d; 2009e). However, on the supply side, Atyrau-Samara expansion now competed with an expanded Caspian pipeline as well as the China pipeline. It lost out to the competition, and the expansion project was therefore shelved in 2009 (NiK, 2009e; 2011j; 2011b; 2012a).

Transneft remained reluctant to take on greater responsibility in the CPC. But the Russian government changed its policy in 2006 and used the opportunity to let Transneft manage its stake to force the other consortium members into compliance (Derbilova and Borisov, 2006; Skornyakova and Skorlygina, 2006). Russian tax inspections may have been used to pile on the pressure further (NiK, 2006c). Then, in April 2007, Transneft was awarded management rights to Russia’s share, against Vainshtok’s wish. Transneft did not pay for these rights, but it obtained full freedom in their exercise (Mazneva, 2007). The pressure on other consortium members to raise tariffs and restructure CPC debts was palpable (NiK, 2007g). By this time, CPC members were shipping surplus oil through the trans-Caspian
route. In response to Russia’s *fait accompli*, they threatened to increase trans-Caspian export.

At this point, Kazakhstan delayed the development of the trans-Caspian connection to BTC somewhat and supported the CPC (Makarkin, 2007a; NiK, 2007g). In September 2007, Chevron gave in to Russian demands, and agreed to CPC expansion on Russia’s terms (p.206) (Butrin and Rebrov, 2007). Tariffs were increased, interest payments reduced, and for the first time CPC ran a profit (Zotova, E., 2008a). Russia suddenly achieved its primary objective with CPC, tax extraction. The Russian government seemed unprepared for its success. But now the CPC moved expansion forward. Oman left the consortium in November 2008, and Russia acquired its 7 percent stake, apparently just ahead of Kazakhstan (Zotova, E., 2008a). Russia’s share was now 31 percent, managed by Transneft. Expansion now became a desirable prospect for Russia as well. Maximising Russia’s share of oil export from Kazakhstan was a more urgent priority now that Kazakhstan had an outlet to China. Kazakhstan again proceeded with the integrated trans-Caspian route (NiK, 2009e). Transneft manoeuvred quickly to force an agreement on expansion (Gavshina, 2008), and it finally actually moved forward (Mel'nikov, 2009; NiK, 2010f; CPC, 2012).

In 2006, Russia revived an old project from 1994 comprising a pipeline from Burgas in Bulgaria to Alexandroupolis in Greece (Reuters News, 1994; RFE/RL, 1997). Initially intended to boost exports from Novorossiisk and compete with BTC (NiK, 2007h), it was now seized upon as a perfect feeder pipeline for an expanded Caspian pipeline (Kupchinsky, 2006; NiK, 2012a). As the CPC expansion materialised, the Russian government argued that it had to be sufficiently large to fill Burgas-Alexandroupolis
(Gavshina, 2008; Mel'nikov, 2009). However, by 2009 the project had faltered in the face of the financial crisis currently hitting Greece and Bulgaria (NiK, 2009e; 2010f; Daborowski, 2011; Eastweek, 2011; Gavshina, 2011). From October 2009 Russia participated in an alternative project in Turkey, the Samsun-Ceyhan pipeline (NiK, 2012a).

6.11 Conclusions

Transneft came out of the Soviet period as a state-owned company with a monopoly transport service which it provided equally to all oil producers. But it offered little access for state organisations. In 1991–7, central state organisations participated less and less in Transneft’s development. Informal ties substituted for state access. With Chernomyrdin’s informal protection, Transneft developed autonomously of the central state. By 1996, the Fuel and Energy Ministry was well aware of Transneft’s policy, and tried to access a greater share of Transneft’s informal rent streams, remove Chernyaev, and make Transneft follow government instruction and become accessible to the state. With Chernomyrdin out of government, this was possible.

Savelev made Transneft accessible to the state, a process that continued under Vainshtok. The privileged shares still constrained Transneft’s rent sharing with the government. The resolution of this conflict under Putin very likely involved a modification of rent management arrangements to give the ruling coalition a share of Transneft’s dividends. In that case, informal rent sharing continued to tie the Transneft to the regime.

Transneft was a domestic and foreign policy tool from the mid-1990s, but only in the 2000s under Vainshtok was its full potential realised. The state had better access to Transneft, and greater capacity to support development. In Transneft’s case, increased state capacity also gave it a push towards institutional development. But continued state support
for its monopoly status depended on its capacity to deliver infrastructural power to the state. This it did, contributing to the restoration of state capacity and thereby also regime stability. Transneft gained from this itself, as it was enabled to claim a share of oil companies’ rent streams for pipeline construction.

BPS first showed how Transneft could deliver infrastructural and economic development in a way that maximised state capacity and regime power over the economy. BPS delivered a new export route, but a commercially suboptimal one for oil companies. With transport routes a question of national policy, it was easier for the state to control Russian oil companies through Transneft. Concerns of regional development and the bypassing of Latvia and Lithuania overruled cost-efficiency concerns. The BPS tariff surcharge, levied from all oil producers in Russia, coerced oil companies into spending more of their income in Russia. They were now funding the development of regions and industrial sectors (concrete, steel, pipe, ports, etc) as it suited the state, with the actual beneficiaries of these oil rents selected for their proximity to the regime. Pipeline construction became a source of infrastructural power to the state, but it also allowed the ruling coalition to dispense patronage and cultivate dependence on itself within the elite. Transneft’s role as a source of authoritarian durability was then strengthened by the state’s protection of Transneft’s pipeline monopoly. This ensured that no oil company could grow beyond state control and challenge the ruling coalition’s hold on power.

Transneft seemed closer to the ruling coalition in 2008, in an interesting parallel with the 1990s. Its monopoly and rent streams had political protection to an extent otherwise only observed in Rosatom, and far beyond Gazprom’s. Transneft’s closeness to the regime affected power relations between the state and the company. What was most likely
channels of informal rents to the ruling coalition associated with BPS-2 and ESPO promoted regime stability, but weakened state control. This also contributed to production and spending that was most likely excessive.

Transneft’s usefulness as a tool of the state and source of authoritarian durability extended into the post-Soviet region. Bypass pipeline projects were useful foreign policy tools, and sticks in relations with transit state governments. Once in place, bypass pipelines maximised Russian control of export routes and simplified interaction with transit states.

But Transneft was more successful in promoting the avoidance of old transit routes to the west than in controlling the Caspian transit route. Russia’s pursuit of maximum control of the Caspian transit route closed potential avenues for cooperation with oil producers in Kazakhstan and Azerbaijan. Transneft could have been a force of bilateral energy cooperation. Though never very likely, it was nevertheless an option in the 1990s. But Russia’s aim to achieve maximum control, interpreted rather narrowly by Transneft, made potential partners wary of its routes. Transneft was here a foreign policy tool that cultivated dependence on Russia to some extent, but also one that restricted Russia’s ability to become a partner. It became less attractive to its post-Soviet neighbours.
This chapter analyses Gazprom, the Russian state-controlled company for gas production, gas transport by pipeline, gas transmission and export, and its relations with the Russian state. As in the previous chapters, their interaction was part of the institutional development of the Russian state, and took place both in Russia and abroad. In relation to Gazprom, two recurrent topics in the literature have been the extent to which it functioned as a state within the Russian state (e.g. in Victor and Sayfer, 2012), and its role as a tool of the Russian state abroad (Hill, 2004; Finon and Locatelli, 2008; Sherr, 2013). With the framework used here, these two views, which appear to contradict each other, are nuanced, and it is argued that they represent the domestic and international sides of Gazprom’s interaction with the Russian state over institutional development. In this respect, Gazprom is similar to the other cases studied here. When compared to them, what stands out is how the Soviet legacy of an integrated pipeline system, and the natural monopoly that gas provides for, mattered in making Gazprom both powerful in relation to the state, and a tool for the state.

7.1 The break-up of the Soviet Union and Soviet legacies

Gazprom appeared in 1989 as a ‘concern’ in the Soviet gas industry. This implied some autonomy from the state (Kryukov and Moe, 1996, p.7-9). Viktor Chernomyrdin, a former Gas Industry Minister (1985–9), was the main force behind Gazprom, and he aimed to channel income from gas exports into the investment-starved production and transport sectors (NiK, 2013c). In 1990–91, Chernomyrdin secured Gazprom control over Soyuzgazeksport, the entity responsible for gas exports to Europe (Emel’yanov, 2003; NGV, 2003; Gustafson, 2012, p.70). Soyuzgazeksport’s rent streams supported Gazprom’s
autonomy in the final months of the Soviet Union. In 1991, Chernomyrdin and a long-time, close associate from the gas industry, Rem Vyakhirev, lobbied through the Supreme Soviet’s Order no. 2, which made it possible to establish Gazprom as a company (Bilanenko, 2013). The crisis in the wider economy created opportunities for insiders (p.35) to consolidate and expand the gas industry under a single umbrella. Gazprom turned into an indispensable support for the Russian state and the ruling coalition.

During the first wave of privatisation in 1992, First Deputy Prime Minister Egor Gaidar (Prime Minister from June) ordered an audit of Gazprom’s foreign accounts (Kirichenko and Solov’ev, 1992; Bardin, 1992; Victor and Sayfer, 2012, p.662). Chernomyrdin, shortly afterwards appointed Fuel and Energy Minister, reversed this effort to gain access to Gazprom by granting it control of foreign exports (Kirichenko and Solov’ev, 1992; Victor and Sayfer, 2012, p.662). Gazprom was then exempt from further reform, in what Gaidar most likely saw as a necessary compromise to preserve stability (Gustafson, 2012, p.71). Gazprom’s export monopoly was now connected to its role as a stabilising force in the economy. Gazprom was allowed to accumulate tax-exempt stabilisation funds under its autonomous control and accumulate export earnings in foreign currency accounts abroad (Victor and Sayfer, 2012, p.662), creating an informal channel for rent that could be directed towards the state’s needs.

As a result, the Soviet legacy in the Russian gas industry was an integrated organisation with considerable control from production to consumer, especially compared to other post-Soviet economic sectors.

With gas, consumption and production are closely connected (Ericson, 2009, p.37; 2012, p.621-622). Pipeline is the lowest-cost transport option, but the considerable cost of
establishing such systems makes them a natural monopoly (p.67 fn.11), once in place
(Ericson, 2009, p.29). Gazprom’s pipeline system was enormous, consisting of the United
Gas Supply (UGS) grid, separate regional grids in parts of Russia, and local transmission
lines (Yafimava, 2015, p.2). All told, it was a 140,000 km network that extended from
some of the world’s largest fields well into the post-Soviet region and Europe. Production
continued with only a minor slump in demand in 1991–2 (Stern, 1993, p.13).

7.2 Keeping afloat and muddling through
Vyakhirev succeeded Chernomyrdin, prime minister from late 1992, at Gazprom. During
Vyakhirev’s time as Gazprom’s head (1992–2001), the gas monopoly was reinforced and
extended into other areas, rather than encroached upon (Kryukov and Moe, 1996, p.3).
Valuable staff moved from the Soviet Ministry to Gazprom in 1989–91. Gazprom assumed
the strategic, regulatory and operational management of the gas industry from production
to consumption. This was formalised in a November 1992 decree (Decree No 1333, 1992);
Gazprom was also entrusted with the management and development of the Single Gas Grid
(Decree No 538, 1992). Ownership remained with the state, but Gazprom was stronger
than the new Fuel and Energy Ministry (Kryukov and Moe, 1996, p.7; Victor and Sayfer,

Gazprom’s rent streams stabilised society, the state, and supported the regime. Gas was
delivered to factories, offices and private homes at still-subsidised prices and in spite of
chronic non-payments. Gazprom almost controlled the Russian state by propping up the
budget. As regarded its informal contributions, Gazprom was, in the words of Economy
Minister Evgenii Yasin (1994–7), ‘like a second Russian [state] budget when the first was
exceptionally empty’ (Rozhkova and Reznik, 2013). It included supporting President
Yeltsin financially in the conflict with the Supreme Soviet in 1992–3 and the 1996 election campaign (Popov, I., 2007). In this way, Gazprom enabled the ruling coalition to maintain its power advantage over potential rivals (p.58).

In return for acting as a stabilising mechanism and maintaining the population’s dependence on the state, Gazprom enjoyed extensive autonomy. Vyakhirev set the terms of relations with the state as he saw fit. Gazprom functioned as a classic state within the state (Stern, 2005, p.172; Victor and Sayfer, 2012). Its ownership relations with the state gradually developed into an informal concession (pp.49-51), with the state’s stake managed by the Board and informally controlled by Vyakhirev. Partial privatisation was authorised by Decree no 1333, drafted by Chernomyrdin. It also reorganised Gazprom, the state ‘concern’, into a shareholding company (Decree No 1333, 1992). The decree enabled privatisation of up to 60 percent of Gazprom’s stock within three years, a period subsequently extended (Decree No 1333, (1992) 1997). Two clauses further limited state participation in Gazprom’s affairs. Clause 7 allowed Gazprom to retain at least 50 percent of the dividends on state-held shares to finance maintenance works and other investment in the three years following the decree (Decree No 1333, 1992). Clause 8 entrusted the Board of Directors with the management of the state’s shares on behalf of the state. The government would appoint Board members, but the trustee mechanism restricted the state’s access to Gazprom. Accordingly, the Board would have greater autonomy than indicated by the state’s formal share (Decree No 1333, 1992). The clause had no time limit. Vyakhirev was shortly thereafter appointed Board Chairman, as a concessionaire of sorts.

The state’s share of Gazprom fluctuated between 35 and 40 percent after partial privatisation (Gazprom, 2004a, p.16; Stern, 2005, p.170), as formalised by a 1998 decree.
Gazprom’s concessions relations with the state were consolidated in 1994. Taking advantage of new legislation on trustee management (Decree No 2296, 1993), Vyakhirev came to hold a 35 percent share package in trustee management on behalf of the state, leaving only 5 percent in actual state control (Nikolaev et al., 1994; Stern, 2005, p.172). The agreement was prolonged for three more years in 1996 (Decree No 599, 1996), although conditions were revised somewhat in favour of the state in 1997 (Decree No 478, 1997). Before this revision, Vyakhirev had apparently had the option to buy out the state at a price of one ruble per share (Panyushkin and Zygar’, 2007, p.46-48). After revision, the management had a right to claim and acquire, at asking price, any stake put out for privatisation before 1 January 1999 (Decree No 529, 1997). The right was never exercised (Popov, I., 2007). Other members of Chernomyrdin’s government, and later governments, attempted – unsuccessfully – to abrogate the trustee arrangement (Kravets, V., 1998; Levin, 2000; Panyushkin and Zygar’, 2007, p.44-50). It remained in force to expiry (Popov, I., 2007).

The decision to retain state ownership of Gazprom delayed reform of the company. Gaidar government reformers had intended to reform Gazprom at a later stage and open up for competition in the gas industry. This did not happen. Vyakhirev and the rest of Gazprom’s management resisted reform (NiK, 2004h), and were hostile to any interference from market reformers, especially Chubais (Rozhkoova and Reznik, 2013). To Vyakhirev, late Soviet practices, including autarchy within Gazprom and autonomy from the state, suited Gazprom well also in the 1990s (Bilanenko, 2013). There was considerable support for his position in the population and among the political elite (Victor and Sayfer, 2012, p.662-663).
Gazprom’s management used privatisation of Gazprom’s holdings to preserve insiders’ control through ownership. There appeared a conglomerate of companies indirectly affiliated with Gazprom or its management. The engineering and construction company Stroitransgaz, controlled by Vyakhirev’s and Chernomyrdin’s children, received around 80 percent of Gazprom’s construction contracts. Stroitransgaz held 4.83 percent of the shares in Gazprom (Reznik, 2002a; 2009).

Vyakhirev was at the peak of insider consolidation. The management was a powerful brake on reform, and the Fuel and Energy Ministry was too weak to gain access to Gazprom (Kryukov and Moe, 1996, p.16-17; Malkova and Igumenov, 2012; Makarkin, 2013; NiK, 2013g). Gazprom provided in-house social services for 300,000-plus employees and their families (Rozhkova and Reznik, 2013). Gas rents were thus channelled in a way that maintained employee dependence on Gazprom and impeded reform. Gas prices to factories and consumers remained regulated, delivered as a subsidy almost as in Soviet times. Any government contemplating reform of Gazprom would have to weigh the long-term benefits of profitability in Gazprom against short-term considerations of maintaining stability and support for the ruling coalition (Ericson, 2012, p.634). This rent sharing protected Gazprom’s monopoly in gas distribution, extensive autonomy from the state and discretion to regulate the gas sector.

While Chernomyrdin remained Prime Minister (1992–8), Vyakhirev had a powerful political patron. Yeltsin, on at least one occasion in 1997, vetoed changes to Vyakhirev’s position (Rozhkova and Reznik, 2013). There was a limit to this support. Gazprom’s 1996 tax arrears reached 70 trillion rubles (Rozhkova and Reznik, 2013). The government increased pressure on Gazprom in 1997 to pay taxes, and the imperative to collect some of
it overruled informal constraints. Chernomyrdin now supported his ministers. Gazprom began to pay its taxes. Other businesses followed suit (Rozhkova and Reznik, 2013). But any government minister wanting to remove Vyakhirev, and embark on Gazprom reform, would still have to win over the Prime Minister, President, and Duma members (Bagrov, 2000).

The 1997 decree on reform of the natural monopolies (p.79) included Gazprom (Decree No 426, 1997). First Deputy Prime Minister Nemtsov drafted the decree, but the Gazprom section was edited by Chernomyrdin (Berger and Proskurnina, 2008, p.43-44). The resulting Gazprom reform plan was vague compared to that for electricity. With Vyakhirev in charge of Gazprom, the reform process did not start. The government ministers charged with decree implementation, not least Nemtsov himself, seem to have realised the difficulty of instigating major reforms without the Gazprom management onboard (Ivanov, N., 1997b). Without management cooperation, the state had no access to the organisation. Reform without access might damage Gazprom, and the economy.

A last brake on reform was the lack of professional minority owners. From 1997 to 2005, there was a 9 percent limit on foreign ownership. Initially a temporary provision intended to remain in force during partial privatisation, it proved difficult to abolish (Decree No 529, 1997). Over time, it distorted Gazprom’s share prices (Stern, 2005, p.171-172; Gustafson, 2012, p.338-339; NiK, 2013g). One consequence was low capitalisation, which, combined with management control, made Gazprom unattractive to active shareholders who could have supported reform.
7.3 The trade collapse

From the moment Gazprom acquired control of Soyuzgazeksport, European markets became crucial to Gazprom and Russia. From its profitable gas sales to Europe, underpinned by long-term contracts with take-or-pay clauses, Gazprom received a predictable income, and the state a revenue source. Europe was the only market where Gazprom made a profit, and this seems to have been the case until 2004 (p.256).

Gazprom’s de facto monopoly in gas export to Europe rested on two provisions. After foreign trade restrictions were abolished in July 1994, Gazprom retained export control through an obligation to effectuate all gas export according to bilateral agreements between Russia and other states (Decree No 2213, 1994). A lack of spare transit capacity in Ukraine completed Gazprom’s control of the ‘single export channel’ to Europe. Inside Russia, Gazprom’s management of the gas grid placed it in control of other producers’ transport options and customer relationships. With the new Gas Supply Law of 1999, Gazprom became the owner of UGS (Yafimava, 2015, p.2). From 1997, it was obliged to give access to other producers (third-party access).

The post-Soviet region was Gazprom’s smallest market by volume and income. Here, gas was still delivered as a subsidy, making CIS gas markets ‘[markets] in name only’ (Mitrova, 2009, p.26). Gazprom made it a priority to maintain transit to Europe, and accepted the transit terms of Ukraine, Belarus and Moldova (Stern, 2005, p.66; Mitrova, 2009, p.26-28; Pirani, 2009a, p.8). In consequence, transit to Europe was often bartered for gas deliveries (Mitrova, 2009, p.14).

Cheap gas thereby underpinned Gazprom’s relations with post-Soviet customers, and Russia’s relations with its neighbours, with a share of the gas rents distributed in the post-
Soviet region. Post-Soviet states found it difficult to pay for gas until the 2000s, but most remained dependent on cheap and abundant gas from Gazprom (Table 1.2). Debts accumulated. Non-payment problems were gradually overcome after 2000, but the political and economic distortions of gas dependency and cross-subsidisation persisted, particularly in Ukraine.

Gazprom’s second priority was to retain its own transit monopoly for Central Asian gas from old and new sources. This included blocking or obstructing alternative transit projects for new gas from the Caspian Basin. Vyakhirev stated in 1997 that to purchase gas from Kazakhstan, and, by extension, give Kazakhstan access to the single export channel, would constitute ‘a crime against Russia’ (Kravets, V., 1997).

A third priority emerged in the mid-1990s, when transit relations with Belarus and Ukraine became complicated and costly. Transit avoidance on alternative routes was attractive for Gazprom, just as it was for Transneft. It meant investing in expensive excess pipeline capacity. But it mitigated transit risk and increased Russia’s leverage over transit states, for gas as for oil (Ericson, 2012, p.630).

7.3.1 Transit avoidance towards Europe

Transit avoidance was a strategic choice, but transit risk could be mitigated also in other ways. Beginning in 1994, Gazprom encouraged other companies to take over gas trade with post-Soviet countries. The company Itera acquired a considerable share of Turkmen-Russian gas trade, and later supplied gas to several states (Table 7.3) (Stern, 2005, p.22; 24-25; NiK, 2013a). Itera also became an intermediary for Turkmenistan’s gas sales to Ukraine. Gazprom granted Itera preferential access to the grid for post-Soviet trade
(Balmaceda, 2008, p.49). In this way, from 1994 to 2003, the post-Soviet region became an exception to the export monopoly (Stern, 2005, p.68-70).

This and similar arrangements relieved Gazprom of some of the difficulties associated with post-Soviet debt collection. These difficulties partly reflected state pressure. Recovering post-Soviet gas debts was difficult enough. The Russian government also used subsidised gas and a tolerance for non-payment as rewards to states that maintained a pro-Russian foreign policy line (Bruce, 2007, p.44). In effect, closer relations with Russia maintained dependence on rent streams from cheap gas. Such tolerance, and rent sharing, was not extended to states that distanced themselves from Russia, beginning in November 1992 with the Baltic states (Krasnaya Zvezda, 1992). Debts from the Baltic states were recovered through equity acquisitions in national gas grids, first Estonia in 1994 (Gray, 1995, p.23). It took Gazprom much longer to succeed with this strategy for debt recovery in relation to transit states. Post-Soviet gas relations were therefore burdensome, even as they served the state. Itera, unlike Gazprom, was not expected to give price discounts according to the state of bilateral relations, and Itera’s post-Soviet gas trade was profitable.

Relations with Ukraine were particularly difficult. In the 1990s, Ukraine transited up to 90 percent of Russia’s gas exports to Europe. Annual transit capacity was around 175 billion cubic metres (bcm). Ukraine also had underground storage capacity of 43 bcm (Pirani, 2009c, p.109-113). This was essential to Gazprom, which invested little in storage facilities in Russia. Storage facilities smooth out seasonal variations and secure supply during interruptions.

Transit and storage fees were low and paid in gas. Barter goods paid the rest of Ukraine’s gas consumption (Balmaceda, 2008, p.111-112; Pirani, 2009c, p.113). Gazprom refrained
from cutting deliveries when Ukraine accumulated debts, and siphoned off gas not paid for (Yafimava, 2007, p.72-73). Ukraine under Leonid Kuchma was too useful an ally for Moscow to ‘turn its perennial gas dispute with Kiev into a confrontation’ (Pirani, 2009c, p.99). This also reflected Gazprom’s reliance on Europe to make a profit, subsidise the home market, and thereby perform a quasi-fiscal service (p.39) to the state.

In consequence, Ukraine often appeared to have a genuinely independent political position towards Russia (Yafimava, 2011, p.140). But Russian economic interests and gas dependence on Russia defined much of Ukraine’s domestic politics (Balmaceda, 2008, p.23-32). For fear of Russian dominance, privatisation attempts would be blocked, and Ukraine’s dependence on subsidised gas increased further (Balmaceda, 1998, p.263-264). Gazprom was blocked from taking control of Ukrainian gas pipelines, while Naftohaz Ukrainy, Gazprom’s Ukrainian counterparty after 1998, could not afford necessary grid repairs. Gazprom would not upgrade pipelines outside its control (Yafimava, 2007, p.70). After Gazprom repeatedly failed to acquire the pipelines, both Gazprom and the Russian government made it a priority to scale down their reliance on transit through Ukraine (Balmaceda, 1998, p.269). This resulted in three large bypass projects, Yamal (through Belarus), Blue Stream (under the Black Sea), and Nord Stream (under the Baltic Sea) (Smith, 2012, p.122), although the latter lost momentum and was only revived in the 2000s.

In comparison with Ukraine, relations with Belarus were easy. On independence, Belarus inherited the modern pipeline system Northern Lights, established for deliveries to Belarus and transit to Poland and the Baltic states (Yafimava, 2009, p.139). Belarus relied on Russian gas for 50–60 percent of its primary energy supply, and ran up debts to Gazprom.
and other suppliers (Yafimava, 2007, p.52). When Gazprom in 1992 embarked on the Yamal project, reliance on Belarus was minimised. Gazprom covered the four billion US$ cost and owned the Belarusian section. First deliveries were made in 1999 (Yafimava, 2009, p.139-141).

Moldova was the third transit state, en route to Romania and the Balkans. Gas from Russia covered more than half of Moldova’s primary energy supply (Table 1.2) (Bruce and Yafimava, 2009, p.187-193). Russia from the early 1990s used gas supplies and debts to pressure the Moldovan government in negotiations over the status of the secessionist region Transnistria (Bruce, 2007). The Transnistrian authorities also incurred debts to Gazprom.

Compared with other CIS member states, Moldova paid a high price: 80 US$ per thousand cubic metres (mcm) in 1995 (Stern, 2005, p.101-102). This was offset by a high transit tariff, more than double Ukraine’s and five times that of Belarus (Stern, 2005, p.101-102; Yafimava, 2007, p.58; Bruce and Yafimava, 2009, p.177). By 1995, Moldova’s debt to Gazprom stood at 300 million US$ (OMRI, 1995). Gazprom and Moldova agreed on a debt-for-equity settlement, in which Gazprom took a share of Moldova’s gas grid (Moldovagaz) in return for debt cancellation (OMRI, 1995).

Blue Stream was the second transit avoidance project in the 1990s, planned to supply up to 16 bcm annually to Turkey (Logvinenko, 2001). Turkey by 1997 received 6 bcm from Russia, transited through Ukraine, Moldova, Romania and Bulgaria. But Blue Stream was also essential in Gazprom’s efforts to obstruct non-Russian transport projects from the Caspian basin. It would take a share of Azerbaijan’s closest gas market. To Azerbaijan, the most attractive export route for new fields was the planned Baku-Tbilisi-Erzurum pipeline
(BTE), parallel to the BTC oil pipeline. BTE could possibly attract also gas from Turkmenistan, and warrant a feeder pipeline across the Caspian Sea (NiK, 2006m). Blue Stream offered Turkmenistan an outlet to Turkey through Russia (NiK, 2005f).

Blue Stream cost 3.2 billion US$ (NiK, 2005f). Gazprom in 1999 lobbied tax and customs breaks through the Duma to an estimated value of one billion US$ (NiK, 2003i). The Audit Chamber estimated in 2003 that the real value was higher, 130 billion rubles, or just over four billion US$ (Lyashenko, 2003). Its investigation concluded that Gazprom had exploited legal loopholes to a maximum (NiK, 2003i).

7.3.2 Control of Caspian transit

To develop its gas resources, Kazakhstan needed a route to Europe. With transit through Russia, Kazakhstan’s gas would be competitively priced (Kravets, V., 1997). But this was not in Gazprom’s interest, and Gazprom did not allow it. Kazakhstan’s offers of stakes in its oil and gas fields did not change Gazprom’s priorities.

Kazakhstan’s gas industry was intertwined with Russia’s. The giant Karachaganak gas and condensate field supplied pipeline gas to the equally giant Orenburg Gas Processing Plant in Russia (NiK, 2006n; NGV, 2011b; Karachaganak Petroleum Operating BV, 2012). After the break-up of the Soviet Union, Karachaganak was owned by Kazakhstan and operated by Gazprom, to which it represented unwelcome competition (Brauer, 2002). It took little interest in Karachaganak, which sorely needed investment (NGV, 2011b). In 1997, Kazakhstan attracted an international consortium to Karachaganak (NGV, 2011b). Gazprom was offered a stake, quickly ceded to Lukoil (Brauer, 2002), which took a more active role.
In the Soviet period, Turkmengazprom supplied gas to other union republics in return for hard currency, calculated on the basis of a stipulated export ‘quota’ to Europe (Kryukov and Moe, 1996; Stern, 2005, p.72). After the break-up, Gazprom first denied Turkmenistan access to the single export channel and to other post-Soviet markets. Then it opened up for cross-border trade, but demanded a high transit fee, making Turkmen gas uncompetitive (Savushkin, 2000). In 1995, Gazprom and Turkmenistan established Turkmenrosgaz, a JV between Gazprom (45%), Turkmenistan (51%) and Itera (4%), that would handle Turkmenistan’s gas trade with a transit tariff discount (Smirnov, G., 1997). Turkmenrosgaz sold gas mainly to Ukraine (Smirnov, G., 1997). In 1997, Turkmenistan withdrew from Turkmenrosgaz due to non-payments by Ukraine and disagreement with its partners (Smirnov, G., 1997; Savushkin, 2000). This in effect dissolved Turkmenrosgaz (Smirnov, G., 1997). Left without gas outlets to the west, Turkmenistan pursued exports to Iran (NiK, 2008f; Lukin, 2011, p.87).

For Gazprom, Georgia and Armenia were small markets without their own gas production. Persistent non-payments and debts incurred losses (Serzhantov, 2000), and in 1995 Itera began to supply these states (Table 7.3).

The gas pipeline ended in Armenia, whose international isolation would have been alleviated by a gas connection to Iran. Both states lacked the funds (Verezemskii, 1997). On the other hand, Armenia could become a route to the Turkish market for Gazprom (Verezemskii, 1997). Only 25 percent of Armenia’s network capacity was utilised, and it offered underground storage facilities. Transit would require only minor additions and a new pipeline from Armenia to Turkey (Verezemskii, 1997). In 1997, a debt-for-equity deal resulted in joint ownership of Armenia’s gas pipelines between Gazprom (45 percent),
Ireta (10 percent) and the Armenian government (45 percent) (NiK, 2005k; Stern, 2005, p.85). But the fraught relations between Armenia and Turkey stopped the project, and Gazprom decided to reach Turkey through Blue Stream (Verezemskii, 1997). Gazprom in 1999 offered to cover 60 percent of the cost of a new pipeline from Iran (RFE/RL, 1999; Vedomosti, 1999b).

7.4 The financial crisis

The dismissal of Chernomyrdin’s government in March 1998 left Vyakhirev more exposed to demands from the state, especially for greater rent sharing. Improving state finances was an urgent task for the new Kirienko government. Gazprom’s non-payment of tax was a recurrent source of tension. It was closely related to the issue of non-payment for gas, especially by government institutions, and Vyakhirev often made this point (Stern, 2005, p.56).

The Kirienko government also believed it was essential to curb Vyakhirev’s power to enable a reform of Gazprom in the longer run (Levin, 2000), and it tried to put an end to the trustee agreement (Popov, I., 2007). It demanded greater access to Gazprom’s rent streams in the form of tax payments based on real numbers, no longer averaged out over the year (RFE/RL, 1998). Gazprom assets were sequestered to retrieve taxes (RFE/RL, 1998; Popov, I., 2007). Gazprom in response mobilised the Duma, where it had widespread support and paid many deputies (Popov, I., 2007). The government was chastised, but the resulting compromise increased tax extraction from Gazprom (Kravets, V., 1998; RFE/RL, 1998; Popov, I., 2007). As it turned out, this made a difference when the financial crisis hit a few weeks later. Reform was postponed nonetheless (NiK, 2013g). Gazprom contributed 25 percent of all federal taxes in Russia in 1998 (Stern, 2005, p.56). It was now Russia’s
‘largest foreign currency earning company’, a position it held for several years (Stern, 2005, p.128-129). The government struggled to maintain a power advantage among the elite, and Gazprom’s sources of power could be mobilised against the government. It was therefore essential to maintain its support of the ruling coalition.

By now, Vyakhirev’s and Chernomyrdin’s families were well represented in Gazprom subsidiaries (Butrin, 2001b; Reznik, 2002c; Emel'yanov, 2003; Rozhkova and Reznik, 2013). Beginning in 1998, Gazprom also consolidated its ownership stakes in the media, notably including the nationwide broadcasters NTV (30 percent) and ORT (3 percent) and a long list of regional media. Gazprom’s rent streams dominated the budget, promoted political interests in the Duma and the regions, and provided direct channels to voters through the media. Control of Gazprom gave access to superior resources and therefore an advantage in any political struggle, and its infrastructure could be used to cultivate dependence on the state in the elite and society (p.58).

7.5 New approaches to the post-Soviet region

Because Gazprom was being pressured to pay taxes in Russia, it pressured post-Soviet customers to repay debts (Balmaceda, 1998; Bruce, 2007). Gas supply cuts were used to recover debts from smaller states, like Moldova in 2000 and 2001 (RFE/RL, 2000; 2001d; 2001c). But the Russian government was against interrupting supplies to other CIS states. Converting debts to equity stakes in gas-related infrastructure had already been practised in Estonia, Moldova and Armenia. It now became a second-best option also elsewhere. Gazprom would gain more control over transit routes, and more leverage with host governments.
The Belarusian government was reluctant to cede a stake in gas pipelines. Belarus countered Gazprom’s pressure by buying more gas from Itera. In 1999–2004, Belarus consumed at least 16 bcm annually (Table 7.2) (Yafimava, 2007, p.58; 2009, p.134-137). Itera accepted barter payment, which covered up to 80 percent of supply (Yafimava, 2007, p.52; 58). Belarus promised to implement the 1995 Customs Union Agreement to obtain reduced prices. In the end, Belarus paid very little for Russian gas. Transit fees were also low (Yafimava, 2007, p.58).

The Trans-Caspian pipeline project was still on the table. With the BTE pipeline coming closer to construction, it was important for Gazprom to reduce the appeal of the Trans-Caspian pipeline project. Following the discovery of the giant Shah Deniz field in 1999, Azerbaijan demanded a 50 percent share of BTE capacity for Azeri gas (Savushkin, 2000). This deprived the Trans-Caspian pipeline project, which depended on sufficient capacity in BTE to be commercially viable, of its outlet. Under orders from the new prime minister, Vladimir Putin, Gazprom bought a considerable volume of gas from Turkmenistan in 1999, and promised to reserve capacity for Turkmenistan in the Blue Stream pipeline (Savushkin, 2000; NiK, 2006m). Turkmenistan then withdrew the promised gas from the Trans-Caspian pipeline project (NiK, 2006m). At the same time, Gazprom had a domestic gas deficit, which it covered with Turkmen gas. This prevented Turkmen gas from actually reaching Blue Stream when it opened in 2002 (NiK, 2010d).

The Shah Deniz discovery also meant that Azerbaijan would offer Gazprom competition in the Turkish market (Serzhantov, 2000). Azerbaijan now maximised this opportunity, by decreasing imports from Gazprom and transferring them to Itera (Table 7.3) (NiK, 2005h).
7.6 The new coalition

Upon taking up the presidency, Putin refused to treat Gazprom with the now customary deference (Panyushkin and Zygar’, 2007, p.84-85; Makarkin, 2013). To Putin, the state’s lack of access to Gazprom reduced overall state capacity. He clearly expected Gazprom to act as a tool of the state and the regime, particularly by providing media support for his own positions (Panyushkin and Zygar’, 2007, p.84-85). Putin also preferred to have loyal associates in central positions. Vyakhirev’s position grew increasingly untenable (Makarkin, 2013). On expiration of his contract in May 2001, Vyakhirev was replaced by Aleksei Miller (Rozhkova and Reznik, 2013). Between 1991 and 1996, Miller had worked with Putin in St Petersburg, in the Committee for External Relations (Gustafson, 2012, p.241). His non-gas industry background and his absolute loyalty to Putin were crucial to his appointment (Makarkin, 2013; Rozhkova and Reznik, 2013).

Miller was tasked with restoring state access to Gazprom, not with reform. The first aim was to re-establish majority control, 51 percent, over Gazprom (NiK, 2013g). This was accomplished in early 2003, presumably by buying out the former management (Stern, 2005, p.171; NiK, 2013g). Vyakhirev and people close to him were also bought out from Gazprom-affiliated structures (Reznik, 2002a; 2009).

The second aim was to stop and reverse the erosion of Gazprom’s control of Russian gas production and export. Independents, including Itera, had acquired minority stakes and lesser fields (Butrin, 2001b; NiK, 2013a). After the management change, Itera’s position in Russian gas production was reduced. It was also forced out of the post-Soviet gas trade (Tables 7.2 and 7.3). Itera’s gas was partly sourced from Gazprom through barter payments of regional tax (NiK, 2013a). Itera had received credits from Gazprom on preferential
terms (Popov, I., 2007). Gazprom’s management under Vyakhirev was widely assumed to have benefited personally by letting Itera and affiliated structures take a share of gas sales (Butrin, 2001b). Later investigations by the Audit Chamber and PriceWaterhouseCoopers, Gazprom’s auditors, into transactions and terms between Itera and Gazprom, and relations between Gazprom board members and Itera, found no evidence of wrongdoing (Jack, 2001, cited in Stern, 2005, p.23 fn. 49).

The initial tasks were accomplished by 2003 (Popov, I., 2007; Makarkin, 2013). State capacity in the gas industry was restored. Barter and non-payment practices were reduced to below 5 percent by 2004 (Gazprom, 2003, p.34; 2004a, p.73; 2005, p.44). There was now good reason to question whether Gazprom could keep up gas production sufficient to meet both export commitments and Russian domestic demand. The company’s three main gas fields had peaked, and other major fields were close to peaking (Stern, 2005, ch.1; 2009). But exports now became even more significant to Gazprom and the state budget, as the oil price boom also affected gas prices in Europe. The inflow of rent increased.

The increasing deficit of domestic gas led the government to urge Gazprom to increase efficiency, but in contrast to the electricity industry, radical structural reform and ownership unbundling were considered, but not undertaken (Yafimava, 2015, p.3). Gazprom became a political tool also of Putin’s now much stronger state. Gazprom’s minority stake in the TV channel NTV was instrumental in 2000 in the government’s attack on the ‘oligarch’ Vladimir Gusinskii. Gazprom then acquired Gusinskii’s large media holding (Victor and Sayfer, 2012, p.684-685). NTV’s broadcasts grew less critical towards the government.
7.7 A foreign energy strategy

The 2003 Energy Strategy envisaged substantial increases in gas export, with demand rising in Russia’s traditional markets and in the Asia-Pacific region (Energeticheskaya strategiya, 2003, p.32). The post-Soviet share of Gazprom’s gas sales was already growing (Table 7.1).

7.7.1 Downstream

From 2001, Gazprom began lobbying the government to adopt a different price calculation method and price level for CIS (and eventually also domestic) customers, with the aim of breaking even. During Putin’s first term, the government refused to consider this (Pirani, 2009a, p.8). Cheap gas remained a bargaining chip in bilateral relations (Mitrova et al., 2009, p.411-412). By 2001, Itera covered a large share of CIS gas demand (Tables 7.2 and 7.3). The exceptions were Belarus, Ukraine and Moldova, where transit fees were paid in gas (Stern, 2005, p.68-70).

But there were other signs of a new Gazprom approach. There was more regulation in relations with Ukraine (Pirani, 2009c, p.97). An intergovernmental agreement replaced barter with partial cash payments in 2001, and a 2002 agreement opened for international consortium management of the Ukrainian pipeline network (Yafimava, 2007, p.75). If implemented, this would bring relations with Ukraine much closer to Gazprom’s ideal.

Putin’s initial approach to Belarus was different. He envisaged full political unification of Russia and Belarus, but Lukashenko rejected this (Yafimava, 2011, p.221). To Russia, economic relations then became more important (Yafimava, 2011, p.222; 224). Gazprom was now allowed to pursue its commercial strategy of settling debts, avoiding barter, and establishing a commercially viable relationship. In 2002, Gazprom made continued gas
supply to Belarus at Russian domestic prices contingent on its acquiring a stake in the Belarusian pipeline system, Beltransgaz (Yafimava, 2007, p.44; 2011, p.225). The two governments reached agreement on a Gazprom stake in Beltransgaz, in April 2002, but it was not implemented (RFE/RL, 2004; Yafimava and Stern, 2007). Gazprom then raised the gas price to Belarus by 50 percent (Yafimava, 2007, p.52).

When the intergovernmental level failed to deliver better terms for Gazprom in Ukraine and Belarus, Gazprom had more to gain from controlling supply. In 2003, Itera was forced to give up CIS gas trade and exports (NiK, 2003a; Stern, 2005, p.24-25; Balmaceda, 2008, p.60). Gazprom quickly reduced Itera’s access to the Russian grid, and assumed responsibility for post-Soviet markets, citing Itera’s lack of transmission capacity (Stern, 2005, p.25). Turkmen exports to Ukraine continued through opaque intermediaries (Pirani, 2009c, p.103), but otherwise, Gazprom returned to post-Soviet markets.

With government support for a more commercially based policy towards post-Soviet customers, it was easier to progress on debt settlements. Ukraine’s debt for gas deliveries in 1997–2000 was settled in August 2004 (Yafimava, 2007, p.74). Impending presidential elections in Ukraine eased the negotiation process. The deal gave Gazprom access to Ukraine’s underground storage, and renewed the agreement on an international consortium for the Ukrainian pipeline network (Yafimava, 2007, p.75). The details were left until after elections.

Reaching a deal on Beltransgaz with Belarus was more difficult. Belarus again rejected Gazprom’s price offer in 2003 (Mite, 2003; Yafimava, 2011, p.225). The Russian government then allowed Gazprom to increase prices further, insisting on actual payment (Mite, 2003; Yafimava, 2007, p.44). From that point, cheap gas deliveries to Belarus from
Gazprom and Russia’s side were contingent on, firstly, actual implementation of the Customs Union Agreement, and secondly, a finalised deal over Beltransgaz (Yafimava, 2007, p.90).

### 7.7.2 Upstream

Gazprom’s approach to Central Asia also progressed in 2001–2. Under Putin, Russia was more willing to engage with Central Asia. Gazprom also needed to import more gas. The aim remained to monopolise exports, but Gazprom would consider expanding import capacity, too. Central Asian gas was cheaper than Russian gas. When supplied to the Russian market, it freed up Russian gas for Europe. As long as Gazprom controlled transit, it could capture the price differential (Milov, 2011, p.92). Gazprom pushed Itera out of Central Asian gas trade (Flink, 2002). In the end, some of the Central Asian gas supplied Russia, but the bulk was sold to Europe (Stern, 2009, table 2.1).

In addition to intergovernmental agreements on gas cooperation (RFE/RL, 2001a; Gazprom, 2004b; 2012c), Gazprom’s re-engagement with Central Asia involved the Central Asian upstream. Gazprom and KazMunaiGaz together established KazRosGaz, which managed much of Gazprom’s business in Kazakhstan (KazRosGaz, 2012). When Russia in 2001 began taxing Karachaganak gas en route to Orenburg (Tutushkin, 2001; Brauer, 2002), KazRosGaz stepped in as middleman to reduce the Russian tax burden. KazRosGaz could also provide an outlet for Karachaganak’s increasing production (Flink, 2002). The establishment of KazRosGaz delayed Kazakhstan’s plans for a new gas processing plant in Kazakhstan (Tutushkin, 2001; Butrin, 2005).

Turkmenistan and Gazprom reached a first long-term gas trade agreement, valid for 25 years, in April 2003 (NiK, 2003d; 2008f). The package deal between Russia and
Turkmenistan cancelled dual citizenship arrangements, with grave consequences for around 100,000 Russians in Turkmenistan (Dubnov, 2003; Panfilova, 2004). In return, Gazprom became the sole buyer of Turkmen gas through the Central Asia–Centre pipeline from 2007 (Butrin, 2003c). This would also deprive Ukraine of its separate contractual gas relations with Turkmenistan. Volumes would increase with demand in Russia and Europe (NiK, 2005a; 2008f). Gazprom accepted 50/50 cash/barter payment (NiK, 2008f), but at advantageous terms that gave it a price discount (Butrin, 2003c; NiK, 2005a).

Commercial terms were also introduced for Georgia. Itera in 2002 planned a debt-for-equity swap with the gas distribution company Tbilgazi, Georgia’s largest (Bakhtadze, 2002). When Gazprom replaced Itera, it concluded a 25-year strategic cooperation agreement with Georgia, just ahead of elections (Civil.ge, 2003b). The agreement stipulated that the gas grid would be renovated before Gazprom took over control. As argued by US representatives (Gularidze, 2003c; 2003d) and the Georgian opposition (Civil.ge, 2003a), it could threaten Georgia’s participation in the BTE pipeline.

7.8 The new stability

The Yukos affair also affected Gazprom’s relations with the state. There was now a stronger emphasis on the primacy of the state and state ownership. Gazprom would be given priority in hydrocarbon development. After 2003, it acquired several stakes in the domestic oil and gas industry from less privileged owners (Bradshaw, 2009, p.6-7). Room for competition in the oil and gas industries was limited; any wide-ranging structural reforms of the gas industry were shelved. Another effect was that Rosneft, in 2003 still a

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56 Turkmenistan exported around 40 bcm annually to Ukraine by 2007.
state-owned oil company of limited significance, became a much stronger challenger to Gazprom.

In Putin’s second term, energy policy was a means to increase state capacity. The government, and especially the president, aimed to make the state a driving force in societal development, political life, and increasingly, the economy. In the oil and gas sectors, the need for a stronger state was understood rather more narrowly to imply a stronger state in relation to private Russian companies and IOCs. A stronger state required strong NOCs, and Gazprom had a key role.

Gazprom would become even more important if it acquired Rosneft under a plan developed in autumn 2004. To proponents of NOCs, an integrated oil and gas entity based on Rosneft and Gazprom was a rational step. It would reduce competition between the two state-owned companies. A giant NOC would drive petroleum development. The playing field would tilt even further in favour of the state, and the benefits were seen to outweigh the drawbacks. A merger would have an added bonus in enabling a relatively easy abolishment of Gazprom’s ring fence (Gustafson, 2012, p.339-340). The Gazprom-Rosneft merger process stalled, most likely due to resistance from Sergei Bogdanchikov in Rosneft, and possibly also Igor Sechin (Gustafson, 2012, p.340). Then, in November 2004, a plan for integration of Yuganskneftegaz into Gazprom appears to have originated in the Kremlin (Gustafson, 2012, p.343). Gazprom managers less close to the Kremlin were less enthusiastic about preparing to take over an oil company (Gustafson, 2012, p.343).

When Gazprom later abstained from the Yuganskneftegaz auction, Yuganskneftegaz was acquired by the unknown Baikal Finance Group, which turned out to be a proxy for Rosneft (Gustafson, 2012, p.341-349; NiK, 2013a). With Yuganskneftegaz added, Rosneft,
the rather small company, became a much larger entity, too large for Gazprom to acquire. The plan for a Gazprom-Rosneft merger was called off (Gustafson, 2012, p.350). There were now two NOCs of comparable significance to the state.

Gazprom was not allowed to stay out of oil. After the Yukos affair, Roman Abramovich, the main owner of the large oil company Sibneft, was eager to leave the oil business. Sibneft and Yukos were in the latter stages of a merger as the Yukos affair unfolded. Abramovich had carefully reversed the process, but Sibneft at one point faced the same type of tax claims as Yukos (NiK, 2013f). When Abramovich decided to sell Sibneft and leave Russia, his loyalty to the state fetched him a good price (NiK, 2013f). There may have been considerable offtakes for insiders, enabling Abramovich to pay his dues (Embassy Moscow, 2007b; NiK, 2013f). Gazprom acquired Sibneft, most likely because Rosneft could not shoulder the financial responsibility shortly after Yuganskneftegaz (NiK, 2013f). To Gazprom, the Sibneft acquisition offered few synergies, but it entered the oil business. Importantly for the state, its share of oil production increased further. Sibneft became Gazprom Neft in 2006. After the dissolution of RAO UES, Gazprom also entered electricity production and became Russia’s largest supplier (Gazprom, 2013c, p.71).

Gazprom’s restructuring programme increased the importance of formal institutions. It was now well on a track to becoming a recognisably commercially oriented organisation, although its staff rosters remained inflated. While the state protected Gazprom’s dominance and would not subject it to structural reform on the scale of RAO UES’s, it was compelled to develop and restructure internally. Internal restructuring from 2005 enabled it to meet demands for efficiency from the state, and eventually to benefit from deregulated gas markets.
Domestic gas prices rose, through gradual, but incomplete deregulation. In 2004, Gazprom began to break even on some of its domestic gas sales (Gazprom, 2004c; Stern, 2005, p.173; Mitrova, 2009, p.23). The state was also more responsive to Gazprom’s demands. In late 2006, the government approved a new policy, allowing Gazprom to reach equal profitability from domestic, CIS and European gas sales by 2011 (Stern, 2005, p.173-182; Mitrova, 2009, p.36; Pirani, 2009a, p.7-8). Gazprom could, and did, participate in the partially deregulated wholesale market (NiK, 2013e). The regulated tariff reached break-even level in 2009 (Gazprom, 2013a). Its obligation to allow third-party access to UGS was now increasingly enforced by the Federal Antimonopoly Service (Yafimava, 2015, p.13-17).

Gazprom remained important in the economy and to the state budget. In 2003, 20 percent of all federal taxes came from Gazprom, which represented around 5 percent of GDP (Stern, 2005, p.56). Gazprom’s share of GDP increased to around 10 percent in the period 2004–8 (Gazprom, 2008, p.5). A new taxation system for the gas industry, introduced in 2004, reduced Gazprom’s share of tax payments, and Rosneft became the largest tax payer (Stern, 2005, p.57). This was an implicit acknowledgement of the continued burden of informal taxation on Gazprom (Table 7.5). As with Transneft, the level of Gazprom’s dividend payments to the state was a source of contention before 2010 (Sapozhkov, 2012). When the government introduced a new dividends policy for state-owned companies in 2010, Gazprom had to pay out more to the state.

7.9 Expansion?

The 2009 Energy Strategy identified transit risk as the main obstacle to Russian access to the European market (Energeticheskaya strategiya, 2009, p.49). Consolidation of an
integrated Eurasian gas pipeline system with Russia as the hub would minimise it (Energeticheskaya strategiya, 2009, p.54). Growing shale gas production and global LNG markets were in forecasts seen as having limited consequences for the Russian gas industry (Energeticheskaya strategiya, 2009, p.95). The new Strategy emphasised well-established aims, including Gazprom’s equal profitability aim established in 2006.

The US shale gas boom and the economic crisis in Europe reduced demand for Russian gas. Gazprom’s future supply was now a less urgent problem than preserving its market shares. The dimensions of this change were only slowly grasped in Gazprom and the government, as visible in the Energy Strategy. Gazprom’s first reaction to the changing circumstances was not to offer European customers prices renegotiation, but abruptly to change its approach to gas producers in Central Asia (pp.269-71).

In late 2005, Gazprom announced a general gas price increase in the post-Soviet region from January 2006, aimed to give equal profitability with Europe by 2011. New pricing formulae (‘European netback prices’) linked prices for the post-Soviet region to those of European markets. Gazprom’s equal profitability policy was in line with the higher priority now accorded economic interests in foreign policy (Pirani, 2009a, p.8). One of the lessons from the ‘colour revolutions’ in Georgia, Ukraine and Kyrgyzstan in 2003–5 was that Russia’s attempts at wielding influence had a limited impact. Gazprom would benefit if economic interests were prioritised higher in bilateral relations. Possibly, the political carrots and sticks would also become more efficient. And at least in one sense this held true. For Gazprom, transit avoidance projects enabled gas price increases in the post-Soviet region, and made it much easier to acquire control of transit state pipelines (Pirani, 2009a, p.8-9). In annual price negotiations, post-Soviet governments were now willing to allow
Gazprom to acquire stakes in gas pipelines, as long as it delayed a price rise by a year or two. Gazprom’s position also strengthened as post-Soviet demand increased and peaked in 2006 (Table 7.2). In 2011, 22.8 percent of Gazprom’s total gas sales income came from the post-Soviet region (author’s calculations based on Gazprom, 2012b, p.72; 74; 78).

Until 2006, Gazprom’s control of the single export channel was a de facto monopoly. It served Gazprom well, especially in the European market, where a de jure monopoly would make Gazprom-owned marketing companies vulnerable to action under the Energy Charter Treaty. But in 2006, Russia introduced a de jure monopoly in a new gas export law (NiK, 2006f). According to the law, only Gazprom, now the owner of the gas grid, and its 100 percent-held subsidiaries, could export pipeline and liquefied gas from Russia (Federal Law No 117, 2006). In the post-Soviet region, this removed the element of price competition, however fictitious it had been (Yafimava, 2011, p.232).

7.9.1 To Europe: Reduced transit, increased prices, more control

Ukraine

Gazprom’s reliance on transit through Ukraine decreased to 70–80 percent of the total with Yamal (2001) and Blue Stream (2002) in operation (Yafimava, 2007, p.70; Mitrova et al., 2009, p.419). Gazprom assumed a prominent role in Ukraine’s gas supply. Following Itera’s exit, the intermediary company EuralTransGaz supplied Turkmen gas to Ukraine (Pirani, 2009c, p.97). In 2004 a new intermediary appeared, RosUkrEnergo. Gazprom owned 50 percent and had a share in profits (Balmaceda, 2008, p.112; Pirani, 2009c, p.100). Yuliya Tymoshenko, Ukraine’s Prime Minister from February 2005, tried to eliminate intermediary companies from gas imports. She failed, but the two sides agreed

57 The exception was LNG exported to Asian markets.
on Gazprom Export as the sole supplier of Turkmen gas to Ukraine (Pirani, 2009c, p.100). Gazprom’s leverage over Ukraine increased, with much better prospects of turning a profit from gas trade. Allowing this was a deliberate decision on Putin’s side. After the Orange Revolution (2004), he made a point of ensuring that President Viktor Yushchenko had difficult relations with Russia (Pirani, 2009c, p.99).

In negotiations for 2006, Gazprom aimed to increase gas prices for Ukraine from 50 US$/mcm to at least 160 (Pirani, 2009a, p.100). A public announcement by Putin of a 230 US$ price offer escalated a nascent crisis (Panyushkin and Zygar’, 2007, p.160; Pirani, 2009c). In the absence of a deal by 1 January, Gazprom reduced supplies to Ukraine and Europe for two days, until agreement was reached (Yafimava, 2011, p.166). The settlement appeared advantageous for Gazprom, with a price of 95 US$/mcm. RosUkrEnergo became party to the agreement, and had market access in Ukraine through a JV with Naftohaz (Pirani, 2009c, p.101; Yafimava, 2011, p.167). This indirect arrangement was not transparent. Ukraine again accumulated gas debts, while Gazprom lost control of cash flows from gas sales (Yafimava, 2011, p.168). It was unclear where the bulk of gas debts accumulated, and it was difficult to establish their size (Yafimava, 2011, p.171).

When in early 2008 Tymoshenko returned as prime minister, she again attempted to introduce direct sales from Gazprom Export to Naftohaz (Pirani, 2009c, p.104). Gazprom’s management were now in favour of direct sales too (Yafimava, 2011, p.172). A brief crisis in March was solved by replacing RosUkrEnergo with an intermediary owned jointly by Gazprom and Naftohaz. A share of the Ukrainian industrial market was also reserved for a Gazprom subsidiary. Ukraine now committed to discussing a higher price level (European netback prices) in later negotiations (Pirani, 2009c, p.104). Bilateral gas relations moved
closer to Gazprom’s preferences. Further negotiations followed in October, and appeared to settle outstanding issues (Yafimava, 2011, p.178). In a crucial omission, RosUkrEnergo was not party to and did not approve of the new agreement. Gazprom controlled only half of RosUkrEnergo. The rest was owned by the Ukrainian businessman Dmytro Firtash, who did not approve of an agreement that removed his intermediary role (Yafimava, 2011, p.180).

Negotiations broke down in late 2008 with a new crisis emerging in January 2009 (Yafimava, 2011, p.181). This crisis was unprecedented in the scale and duration of supply reductions to Europe. When Gazprom reduced the flow through Ukraine, Naftohaz in turn reversed Ukraine’s pipeline network, supplying Ukraine from underground storage. Gazprom’s deliveries were stopped at the border (Yafimava, 2011, p.186-187). While Russia and Ukraine negotiated over a new agreement, European customers questioned both Russia’s and Gazprom’s reliability as a supplier, and Ukraine’s role as a transit state (Tomberg, 2009; Yafimava, 2011, p.187-189).

Russia and Ukraine reached a settlement in late January. It was valid for ten years, had a high base price, starting at 360 US$/mcm, and included a take-or-pay clause that obliged Ukraine to take at least 80 percent of 52 bcm annually (Yafimava, 2011, p.191-192). The new transit agreement did not include a ship-or-pay clause that obliged Gazprom to ship the provisional annual volume, 110 bcm. Later in 2009, presidential candidate Viktor Yanukovich used the settlement to discredit Tymoshenko in the presidential election campaign. After his accession to the presidency in January 2010, Yanukovich initiated new negotiations with Gazprom. Little is known about these negotiations. An April package deal reduced the gas price. In return, Ukraine extended the lease for Russia’s Black Sea
Fleet, based in Sevastopol on Crimea, from 2017, when it was due to expire, to 2042 with an option for further extensions (Yafimava, 2011, p.196-197).

After the 2009 crisis, Ukraine consumed more coal and nuclear energy (Pirani, 2009c, p.93). When Ukraine opened its continental shelf for petroleum exploration in 2010, it was unwelcome competition for Gazprom. The most promising fields could potentially reduce Ukraine’s dependence on Russian gas imports by 10 percent. In 2012, Russia denied a drilling platform passage along the Russian coast to Crimea (Prostakov, 2012, p.30). Subsequently, Gazprom proposed to intensify development of an offshore structure under joint development by Gazprom and Naftohaz at the expense of other fields (Prostakov, 2012, p.31).

Belarus


The crisis made plans for the pipeline across the Baltic Sea, Nord Stream, all the more attractive to Gazprom. Originally intended by Gazprom to bypass Ukraine, and underway before the crisis (Yafimava, 2007, p.83), Nord Stream also bypassed Belarus. In September 2005, Putin and German Chancellor Gerhard Schröder announced that Gazprom, E.ON and Wintershall would construct the Nord Stream pipeline (RFE/RL, 2005a; Zimin, 2012,
When Schröder then lost in the elections, he became Gazprom’s representative on the Nord Stream Board of Directors, and Chairman (RFE/RL, 2005b). Miller was not informed until just before the announcement (Panyushkin and Zygar’, 2007, p.194). The decision appears to have been made by Putin. The consortium was led by Putin’s acquaintance, the German banker Matthias Warnig (Chazan and Crawford, 2005; Crawford, 2005; Crawford and White, 2005). Nord Stream’s first branch opened in June 2011, the second in April 2012.

Nord Stream weakened Belarus’s position towards Gazprom, particularly in regard to Beltransgaz negotiations. After international valuation in 2006, Gazprom offered to pay 2.5 billion US$ for 50 percent of Beltransgaz (Yafimava and Stern, 2007; Yafimava, 2011, p.230). The transfer would take place in four stages from 2007 to 2010 (Yafimava, 2011, p.231). These were the best terms Belarus could hope to achieve, and it was essential to finalise the deal before Nord Stream opened. Belarus now accepted a sliding scale towards paying the full European gas price by 2011 (Yafimava and Stern, 2007; Yafimava, 2011, p.231).

But in 2009, Belarus and Russia disagreed over these terms (Yafimava, 2011, p.236). Belarus experienced a severe economic crisis and ran up new gas debts. This escalated to a full-blown crisis in summer 2009, affecting bilateral trade in foodstuffs and oil transit (Yafimava, 2011, p.237). There was a new crisis in June 2010 (Yafimava, 2010). But when Gazprom then reduced gas supplies to Belarus, Belarus turned the tables on Gazprom by demanding payment of its transit fee debts accumulated from late 2009 (Yafimava, 2010). Agreement was reached quickly (Yafimava, 2011, p.245-246). When Gazprom acquired the remainder of Beltransgaz for 2.5 billion US$ in November 2011, it was part of a
package deal, advantageous for Belarus (Moshes, 2012). The deal also included a gas price reduction from 280 to 156 US$/mcm from January 2012, debt restructuring for Belarus, and a ten billion US$ loan for a new nuclear power station in Belarus (p.143) (Ioffe, 2011).

*Moldova*

By 2003, Gazprom’s relations with Moldova had deteriorated. Recovering gas debts from Transnistria was a particular problem. Gazprom failed in an effort to acquire the Moldova GRES power plant in return for Transnistria’s debts (p.89), and then changed strategy. In October 2003, Moldovagaz cut supplies to a major power station in Chisinau (RFE/RL, 2003b). This coincided with conflict resolution negotiations in Transnistria (RFE/RL, 2003h; 2003b; 2003g). Moldova’s president, Vladimir Voronin, first accepted, and then refused to sign, a Russian plan (‘the Kozak plan’) to reintegrate Transnistria while retaining a Russian military presence (RFE/RL, 2003f; 2003c; 2003e; 2003a; 2003d; Tomiuc, 2003; Tomiuc and Krushelnycky, 2003). Bilateral relations reached a nadir. Russia linked gas supply to the secessionist conflict.

In 2004, Gazprom reduced supplies to Transnistria to recover debts, but the authorities in Tiraspol siphoned gas off the transit stream (RFE/RL, 2004; Bruce and Yafimava, 2009, p.174-175). In 2005, Gazprom took over management of Tiraspol’s stake in Moldovagaz (13.44%) through a debt repayment arrangement (Yafimava, 2011, p.264; 266; 279). But more debts accumulated. Gazprom filed legal suits against Moldovagaz at the arbitration court in Moscow in an effort to make the Moldovan government responsible for Transnistria’s debts. But debt collection was impossible as long as the government did not control Transnistria’s territory (Bruce and Yafimava, 2009, p.175-176). Transnistrian authorities used gas revenues to meet other obligations (Fedorova and Kulikov, 2007).
Gazprom’s management was unable, or unwilling, to reform its relations with Transnistria, while Russia used the debts to pressure the Moldovan government in the secessionist conflict (Heil, 2008; Bruce and Yafimava, 2009, p.176).

Gazprom wanted the price increased from 80 to 160 US$/mcm ahead of 2006 (RFE/RL, 2006d). Negotiations failed, and Moldova entered a severe energy crisis (RFE/RL, 2006d). New negotiations resulted in a temporary agreement of 110 US$/mcm. Gazprom offered to refrain from further increases in return for a greater share of Moldovagaz (RFE/RL, 2006c; 2006b; Sergeev and Grib, 2006). According to Gazprom, a similar arrangement could also cover Moldova’s historical gas debt of 780 million US$. 560 million US$ were non-payments on Transnistria’s part, the Moldovan government held, and Gazprom should instead acquire Tiraspol’s stake (Sergeev and Grib, 2006). No agreement was reached, and the gas price rose to 160 US$.


By September 2012, Transnistria’s debts were around 3.5–4.1 billion US$ (Gamova, 2012; NiK, 2012b; Socor, 2012a). Following a new policy, Gazprom was represented by the Russian government in this round of negotiations (Decree No 1285, 2012). Chisinau offered Russia a comprehensive energy partnership within EU’s Third Energy Package, to which Moldova had signed up in October 2011 and would implement in 2015 (Gamova, 2012; NiK, 2012b; Socor, 2012a). Russia’s position was that Moldova should refrain from implementing the Third Energy Package in return for a price discount, and assume responsibility for Moldovagaz’s total debts (Infotag, 2012; NiK, 2012b; 2012c). Russia
aired the possibility of Moldova obtaining a price discount in return for joining the Customs Union with Russia, Belarus and Kazakhstan (Mordyushenko et al., 2012). Moldova then requested, and obtained, a four-year delay from the EU in implementation of the Third Energy Package to 2020 (Moldova.ORG, 2012b; NiK, 2012c). Russia granted a one-year contract prolongation with an element of price discount (Moldova.ORG, 2012a; Parfenova, 2012; Socor, 2012a).

7.9.2 The Caspian strategy backfires

Gazprom’s efforts to limit the viability of non-Russian export routes for Caspian gas and promote Russian-controlled projects intensified in 2006–7. Azerbaijan’s Shah Deniz field was now close to production start (Serzhantov, 2000; NiK, 2008e). The opening of the BTE pipeline could make it easier for gas from Turkmenistan to reach markets. By minimising competition from Azerbaijani gas, Gazprom would also close possible export routes for Turkmenistan. In early 2006, Azerbaijan reinvigorated plans for a Trans-Caspian gas pipeline to feed BTE (NiK, 2006i; 2006m).

Azerbaijan already delivered gas to Georgia, after three explosions in January had cut its supplies (Civil.ge, 2006; Socor, 2006). When BTE opened in the autumn, Georgia’s transit agreement included a transit fee levied in gas, with a right to take additional volumes at a discounted rate of 63 US$/mcm (NiK, 2006i). Georgia ceased buying Russian gas (NiK, 2006i), with the exception of South Ossetia, which in 2006–2008 was included in the Russian gas infrastructure development programme, at a loss to Gazprom (NiK, 2007i).

Gazprom’s increasing gas prices further accelerated Azerbaijan’s gas development (NiK, 2006i). After the opening of BTE, Azerbaijan pressured the AIOC consortium, in charge of the ACG field, to increase associated gas production at the expense of current and future
oil production (NiK, 2006i). The date for full production at Shah Deniz was also carried forward (NiK, 2003m; 2006i). With Iranian gas supplying the domestic market, and fuel oil replacing gas in electricity production (Muradova and Abbasov, 2006), Azerbaijan became a net gas exporter in 2007 (Ismayilov, 2007; NiK, 2008e).

Gazprom’s European customers now made progress on a project that would take gas from BTE at Erzurum to Europe. Nabucco would threaten Gazprom’s market share in Europe. In response, Gazprom and ENI concluded in 2007 the South Stream pipeline project agreement, which would bring gas across the Black Sea to southeast Europe. Nabucco would thus become superfluous. South Stream was guaranteed supplies by Gazprom, while the Nabucco project did not include reserved gas supplies. South Stream was further strengthened as Gazprom embarked on construction of the domestic Bovanenkovo-Ukhta pipeline in November 2008 (NiK, 2009c). This was a feeder pipeline also for Nord Stream. When the Nabucco project progressed in spring 2009, Russia renewed and intensified contacts with Turkey over transit (NiK, 2009c). Gazprom also increased import from Azerbaijan (NiK, 2009c). This was expensive, as the Russian domestic market now flooded over with gas (Afanasiev, 2009b), but it limited the volume of gas available to the Nabucco project (Gabuev et al., 2010b; NiK, 2010a).

The policy of obstructing non-Russian export routes for Caspian gas was now coordinated at the top of the Russian state. In August 2009, President Dmitrii Medvedev held a conference with the foreign and defence ministers and the heads of Gazprom and Lukoil, to discuss the obstruction of pipelines that bypassed Russia in the Caspian region (Afanasiev, 2009a; Gabuev and Granik, 2009).
Up to 2009, Gazprom had tried to capture as much of Central Asia’s increasing production as possible for Russian-controlled routes. But Russian pipeline capacity from Central Asia expanded slowly, at a level just sufficient to obstruct the Central Asian states’ pursuit of alternative routes to European markets (Yakuba, 2007). In this way, Central Asia’s dependence on Russian routes continued, while Central Asian governments found it difficult to develop their export, and gas fields, optimally. To Gazprom, retaining as much of Kazakhstan’s gas production as possible was crucial, because it would ensure Uzbekistan’s and Turkmenistan’s continued dependence on Russia (NiK, 2006n). Russia’s single export channel was indeed a Russian channel, not a route with reserve capacity for Central Asian gas.

**Kazakhstan**

In 2006, Kazakhstan planned to expand gas production from 26–27 bcm annually to around 53 bcm by 2010. 40 bcm would be exported (NiK, 2006n). Its two main export routes, the Central Asia–Centre pipeline system and the Bukhara-Ural pipeline, went to Russia (Gazprom, 2012a). A lack of maintenance had reduced capacity from the designed 75 bcm annually to 60 bcm, and this limit was reached in 2006 (NiK, 2006n). Russia’s gas imports from Central Asia increased from 2002–2003, and further increases were planned from 2006. The Central Asia–Centre pipeline was then repaired (Gazprom, 2006; NiK, 2006n).

But capacity could be expanded to 100 bcm annually by adding a new leg along the Caspian shore: the Caspian Shore Project (NiK, 2006n). Turkmenistan had proposed this in 2003 (Butrin, 2003a). Gazprom then prioritised upgrading the Central-Asia–Centre pipeline system (Butrin, 2003a; Lukin, 2010c). Three years later, Gazprom’s transit
monopoly was threatened by Nabucco, and by Turkmenistan’s renewed interest in other routes. President Putin promoted the Caspian Shore project in May 2007, on a visit to Central Asia. This coincided with an energy summit in Krakow about pipeline projects that bypassed Russia. Putin’s visit resulted in a joint declaration of intent by the presidents of Turkmenistan, Kazakhstan and Russia (NiK, 2006n; 2008f), followed by an inter-governmental agreement in December. Gazprom, KazMunaiGaz and Turkmengaz finalised the project in 2008. It stalled, however, because Turkmenistan preferred to keep its options open, and failed to reserve gas for the pipeline (Blagov, 2007b; Daly, 2008). Without this essential guarantee, Russia and Kazakhstan shelved the project (NiK, 2010a).

To the Central Asian states, access to China’s gas market was now a realistic alternative (Ericson, 2012, p.642). In March 2006, KazMunaiGaz and CNPC agreed higher annual exports from Kazakhstan to China from 2012 through a new pipeline (Atyrau-Alashankou) (NiK, 2006n). The pipeline would also receive gas from Uzbekistan and Turkmenistan.

Gazprom retained control of Karachaganak. Once more to pre-empt plans for a gas processing plant in Kazakhstan, Gazprom suggested in 2004 that Kazakhstan acquire a stake in the Orenburg Plant (NiK, 2006n). KazRosGaz came to supply Orenburg directly, and Kazakhstan would later have a stake in the plant (Butrin, 2005; Belyakov, 2006a; Sokolov, L., 2007). To Gazprom, joint ownership would secure gas for Orenburg, which faced an impending shortage of gas (Verkhoturov, 2006). But when gas supply in Russia rose, the plan was shelved (NiK, 2006n; Gavshina, 2007; Zhelenin, 2007a; Belyakov, 2008).

Kazakhstan, meanwhile, had tried to reach post-Soviet gas markets independently. Kazakh gas was already supplying Kyrgyzstan (Prokhorov, 2006), and KazRosGaz supplied
Azerbaijan and Georgia as a Gazprom agent (Vignanskii and Grivach, 2005). Georgia then tried to purchase cheaper Kazakh gas, not just Russian gas supplied by KazRosGaz. This transit was subject to Gazprom’s approval (Grivach, 2005; Vignanskii and Grivach, 2005; RFE/RL, 2006e). Gazprom did not approve (Civil.ge, 2005). In 2006, KazTransGaz, a subsidiary of KazMunaiGaz, acquired Tbilgazi (Prokhorov, 2006). As KazTransGaz supplied gas from KazRosGaz, it was believed that Kazakhstan could now sell gas to Georgia (IAA Trend, 2006). Also in May 2007, KazRosGaz obtained a marketing contract for Karachaganak gas (KazRosGaz, 2012). But KazRosGaz’s marketing contracts for Georgia were later transferred to Gazprom Export (Grivach, 2010). Timur Kulibaev, then head of the KazEnergy Association, previously a member of KazMunaiGaz’s management, and President Nazarbaev’s son-in-law, expressed in September 2008 Kazakhstan’s great hopes for a joint pursuit of market outlets with Russia. In a Bloomberg interview Kulibaev announced that Kazakhstan would be interested in developing the partnership with Gazprom towards joint acquisitions in the European gas market (Belyakov, 2008; NEWSru.com, 2008). Gazprom dismissed Kulibaev’s announcement as ‘Kazakhstan’s wish’ (Belyakov, 2008).

While overall gas imports from Central Asia decreased in 2009, 2010 and 2011, Kazakhstan managed to retain most of its share (NiK, 2011k). According to one source, Kazakhstan was desperate in 2009 for Gazprom to take the agreed volumes (NiK, 2011k). Gazprom’s stake in KazRosGaz made imports from Kazakhstan more profitable to Gazprom than other imports from Central Asia (Lukin, 2012, p.18).
**Uzbekistan**

Gazprom developed gas production in Uzbekistan from 2002 (Table 7.4). It established a business partnership with the Switzerland-based company Zeromax at an early stage. Zeromax became a gas trade intermediary for 80 percent of Uzbekistan’s exports to Russia (NiK, 2011a). The company was widely assumed to be controlled by Gulnara Karimova, President Islam Karimov’s daughter (Embassy Tashkent, 2008a; 2010; NiK, 2011a).

Gazprom expanded gas purchases from Uzbekistan from 7 bcm in 2004 to 14 bcm in 2008 (NiK, 2009f). In 2007, Uzbekistan’s government asked for a new price formula based on European prices. The alternative was to sell gas to Europe on its own account (NiK, 2007j). In the following negotiations, Gazprom agreed a price formula based on the European price from 2009 (NiK, 2009f). Gazprom now purchased around 85 percent of Uzbekistan’s gas exports (NiK, 2009f). When President Medvedev visited Uzbekistan, President Karimov declared that Uzbekistan sold gas ‘only to Russia’ (NiK, 2009f). But when Gazprom curtailed gas imports in 2009–11, Uzbekistan found it difficult to sustain exports. Unlike Turkmenistan, it had no take-or-pay clause, and unlike Kazakhstan, it offered no price discount (Lukin, 2012, p.19). In 2009 Tashkent offered 16 bcm and sold 12 to Russia (NiK, 2010e). In 2010–11, Zeromax came under the control of Uzbekistan’s National Security Service (Embassy Tashkent, 2008b; NiK, 2011c). Gazprom limited operations in Uzbekistan (NiK, 2011a), while Uzbekistan increased exports to China (Lukin, 2012, p.19).

**Turkmenistan**

Between 2008 and 2011, Turkmenistan revised upwards its proven reserves from 2.6 Tcm in 2007, to 8.1 in 2008, 13.4 in 2010 and then 24.3 in 2011 (Chazan, 2008; Watkins, 2011;
BP, 2012). This placed Turkmenistan fourth on the list of the world’s gas reserves, behind only Russia, Iran and Qatar (BP, 2012, p.20). In early 2005, Turkmenistan ceased gas deliveries to both Russia and Ukraine in order to obtain a better price and full cash payment (NiK, 2005a). In 2008, Gazprom paid 140 US$/mcm (NiK, 2008f). Gazprom then imported and re-exported 50 bcm annually, or two-thirds of Turkmenistan’s production (Makarkin, 2009). But when European demand contracted, Gazprom was left with too much gas (Panfilova, 2009c). For 2009, Gazprom and Turkmenistan had agreed on a price around 300–374 US$/mcm (Afanasiev, 2009b; NiK, 2010d; Roberts, 2011, p.182). There was no market for gas at this price and volume (Afanasiev, 2009b; Lukin, 2010c). While defending the transit monopoly and its rents from the price differential, Gazprom had overcommitted (NiK, 2006i; Lukin, 2010c, p.64; NiK, 2013d). Gazprom renegotiated prices with Kazakhstan and Uzbekistan. Turkmenistan would not accept a lower price.

Early in 2009, Gazprom, according to later statements, asked Turkmenistan either to reduce the agreed volume by 80 percent, or the price by 40 percent (Grib and Gavrish, 2009). Turkmenistan refused (Afanasiev, 2009b; NiK, 2010d). In April, the Central Asia–Centre-4 pipeline exploded, causing considerable damage to Turkmenistan’s pipelines and gas fields. Export to Russia fell overnight by more than 90 percent (NiK, 2010d; Roberts, 2011; 2012). Turkmenistan’s government accused Gazprom Export of reducing its offtake without notification and causing the explosion. Gazprom officials blamed Turkmenistan for ignoring notifications and failing to reduce input to the pipeline accordingly (Embassy Ashgabat, 2009; Embassy Moscow, 2009; Makarkin, 2009; Panfilova, 2009c; Pannier, 2009b; Roberts, 2011; 2012). Bilateral relations reached a very low point (Grivach, 2009b) and remained tense even as trade resumed in January 2010, at a lower price and volume.
Turkmenistan now expanded exports to China and Iran (NiK, 2010d; Lukin, 2011, p.87).

**Armenia**

Armenia in 2004 constructed the pipeline from Iran, in the event with Iranian credit (NiK, 2005k). Import began in 2007 (NiK, 2005k; Stern, 2005, p.85; Socor, 2007a). Armenia now had a surplus of gas for electricity production, and planned to invest in new generation for export to Iran. There were two alternatives. Armenia could raise funds on its own and construct the necessary domestic leg of the gas pipeline. It would be in control, but locked to the Iranian electricity market. Gazprom instead proposed that ArmRosGazprom develop the domestic pipeline, while Gazprom would invest in new electricity production at the Hrazdan thermal power plant (TPP) (Tatevosyan et al., 2006). The new unit would run on Iranian gas, and Inter RAO and/or Gazprom would own or manage the plant (NiK, 2005k). Inter RAO already managed the older parts of Hrazdan TPP.

Armenia chose to expand energy cooperation with Iran, while Iran tried to secure additional gas supply from Georgia and Ukraine (Krashakov, 2006; Tatevosyan et al., 2006). Under pressure from Gazprom, Armenia in March 2005 denied transit. Gazprom in return promised not to increase the gas price for two to three years (Danielyan, 2005a; 2005b; Tatevosyan et al., 2006). The diameter of the domestic Armenian gas pipeline was also reduced, allegedly in response to Russian pressure (Danielyan, 2005c; Ter-Grigoryan, 2006).

In late 2005, Gazprom nevertheless included Armenia in the general price increase (Reznik and Egorova, 2006a). In negotiations, Armenia managed to postpone the increase from January to April 2006, with a price freeze until 2009. In return, Gazprom’s share of
ArmRosGazprom would increase to 75 percent, and Gazprom would take over the new part of Hrazdan TPP (Reznik and Egorova, 2006a; RFE/RL, 2006a). Gazprom and ArmRosGazprom also assumed the positions previously held by the Iranians, including control of the pipeline to Iran (Tatevosyan et al., 2006; Danielyan, 2007b). The deal was rumoured, quite plausibly, to include arms transfers from Russia to Armenia (Tatevosyan and Reutov, 2006).

Gazprom’s share of ArmRosGazprom gradually increased in 2006–12, and in 2013 it assumed full control (Gazprom, 2013b). Gazprom’s position also translated into political office (Kavkaz-Uzel, 2010; Ovanisyan, 2011). With complete Russian dominance of Armenia’s energy sector, Russia now also controlled Iran’s energy trade options through the country (Reznik and Egorova, 2006b; Ter-Grigoryan, 2006).

7.10 Conclusions

While other economic sectors disintegrated in the late 1980s and early 1990s, Gazprom consolidated autonomous control of the gas industry and its access to external markets. This enabled Gazprom to stabilise the Russian state. Its informal rent streams, channelled through subsidies towards the population coupled with more selective rent sharing with the elite, gave the state infrastructural power and maintained regime stability. But this also sustained a status quo that inhibited institutional development and growth in state capacity. Gazprom’s position as a linchpin of the state slowed the commercial development of the company.

Gazprom in the 1990s controlled sector policy and essentially regulated itself, as did Transneft, RAO UES and Minatom. This status quo was upheld by informal constraints, as rents were shared in the ruling coalition in return for protection of the monopoly. Rents
from Gazprom sustained the ruling coalition and wider support in the Duma and the regions. These rent streams were considerable.

State access to Gazprom through formal channels was more restricted, by institutions like trustee management, than in the other cases studied here. As long as state capacity was low across all sectors, the difference was not so great. But when the government in 1997–8 attempted to gain access to all state-owned companies, there were more hurdles, secured in the formal institutional framework, to overcome to gain access to Gazprom. The balance of power had tilted away from the state towards Gazprom to a greater degree than in other cases.

State capacity increased under Putin’s first presidential term, to no little extent as a result of improved access to Gazprom. The return of state access to Gazprom was emblematic of the period. For Gazprom, restored state control resulted in a more commercially oriented organisation, with consequences for the Russian and post-Soviet gas markets. Gazprom became a tool of the new regime, conspicuously and early in the case of the media. Gazprom had, of course, also been a tool of the regime in the 1990s, but that was negotiated access. Putin and the governments of the 2000s insisted on state organisations having direct access to Gazprom. Such access extended to the regime. Gazprom was open to regime interference in the 2000s because it depended on the state and the ruling coalition. With greater specialisation among state organisations, it no longer regulated itself. In the 1990s, Rem Vyakhirev could pay Gazprom’s taxes almost at will. In the 2000s, Gazprom had to give third-party access to UGS and, informally, it could be instructed to acquire an entire oil company.
Gazprom was a tool of Russia’s foreign policy in the post-Soviet region from its early days. There is an economic and political logic to this. Gas producers and consumers are always in long-term relationships, and gas pipelines lock the two sides together. Breaking out is costly. Pipelines are expensive, but bypass pipelines that offer excess capacity are even more expensive. Control of gas transit without an accepted dispute resolution mechanism makes a pipeline a political tool. In Russia, Gazprom held that tool. But, as Ericson puts it, mutual dependence can be used for cooperative development or geopolitical advantage (Ericson, 2012, p.617). Russia used its control of gas supply and gas transit for geopolitical advantage. Gazprom’s control of post-Soviet states’ access to subsidised gas in the 1990s was used to cultivate their dependence on Russian gas, and gave Russia influence in domestic economic and political development. This could be used coercively, as seen in Moldova and Armenia. The economic cost of dependence increased when Gazprom started to demand European netback prices.

Seen from Russia, Gazprom achieved foreign policy results in the post-Soviet region at little cost in the 1990s. As long as there were no profits to make there, and transit was maintained, there was little loss of revenue. That the results were often symbolic, or that the other side delivered extremely slowly, did not always lead to a top-level Russian reaction. The use of gas as a geopolitical, not a cooperative, tool in the region ensured that at least Russia’s short term aims could be reached.

In the 2000s, commercialisation of Gazprom’s deliveries to the post-Soviet region strengthened company finances and increased revenue. It also made it a more effective foreign policy tool. Bilateral conflict would now result in higher profits, while bilateral cooperation on Russia’s terms could yield both profits and political returns in the form of
leverage, often through equity. As gas still was less important than oil to state revenues in the years of the oil boom, it remained a less costly foreign policy tool (Ericson, 2012, p.629). The mutual dependence between gas seller and buyer made it difficult for post-Soviet customers to protest or exit the relationship. This reduced the likelihood of negative political consequences for Russia when it used gas as a foreign policy ‘stick’.
8. CONCLUSION

Over the two decades studied here, the development of interaction between the state and energy companies was one essential part of the development of the Russian state. It was not the only side to development, but it was the most significant part of the state’s presence in, and interaction more generally, with the economy. With a natural resource-dependent economy, the institutions that regulate the exploitation of those resources are central to political and economic development. Around the central institutions that organise resource extraction, there are actors that try to shape them to their advantage. They may see that advantage as profit-related, for private, state or developmental goals, or based more narrowly in their own professional ethics, or, when faced with disintegration in the state, in the preservation of a relative status quo in the short term. All the companies studied here appeared and evolved due to efforts to preserve intact some organisations, with some power over institutions and implementation. All these strategies also shaped Russia’s development.

The development of foreign policy, and the companies’ operations in the post-Soviet region, was part of state–company institutional development at home. At first, Soviet institutional legacies placed the companies in charge of operations that extended, directly or indirectly, into the post-Soviet region. As the post-Soviet economies became more distinctly separate, the dependence of most of the other states on Russia meant that their gas, oil, nuclear and electricity sectors could not continue to function without close relations, re-integration with, and/or subsidies extended by the companies studied here. Foreign operations proceeded differently in the different industries, but dependence on Russia was maintained to some extent in all sectors. Significantly, for oil this concerned
transport and transit infrastructure more than production. Integrated infrastructure was the physical legacy of the Soviet state, even more so than in other states.

To continue to provide the politically and economically significant energy services to their populations, post-Soviet leaders were in turn dependent on Russian energy companies to varying degrees. But the development of the companies’ foreign operations was also part of Russian institutional development. This development was expressed in the drawing of clearer borders and increasing specialisation among Russian state organisations and companies, defining the limits of company responsibility (also for post-Soviet states), and stabilising the state, elites, population, and the wider post-Soviet region in the years following the break-up. The companies were tools of the Russian state from the beginning, but contingencies influenced the extent to which they could be used. State–company interaction over institutional frameworks at home made the companies accessible to different degrees according to their ownership structure. State–company interaction also set the parameters of companies’ policy relevance to the state, by placing them in control of infrastructure, channels of rents or direct rent extraction, fuel production and markets. Lukoil, of course, was privately owned and without infrastructural assets of major significance to the state, making it less integral to policy development and therefore accessible only through explicit arrangements.

8.1 The changing relations between the state and the energy companies

The similarities and differences across the five cases here evolved in parallel fashion, emphasising the importance of the state, and the state’s capacity to uphold an institutional framework and project power, for companies. In all the cases, this capacity increased from the 1990s to the 2000s, even as this took time. In an analysis based on access and
participation, and with the benefit of hindsight, it is possible to point towards an approximate starting point between 1998 and 2005, when the restoration of state capacity began for each company. This is indicated below in Tables 8.1 and 8.2, because these years are natural turning points. For one company, Minatom/Rosatom, there were false starts over considerable time (2001–5) before results were achieved. It is the successful effort that matters here.

It is important to keep in mind that the restoration of state capacity was not irreversible, and did not progress to a level where it would threaten regime stability. The limits that remained to state capacity in each case were discussed in the case chapters. The state did however structure the environment for the companies differently before and after state capacity increased, even as the ‘after’ in most cases came gradually and considerably later.

8.1.1 Linkages between institutions, rent sharing and property rights protection

The companies emerged out of the state during the break-up of the Soviet Union, and they were headed by insiders from the final Soviet years. When state degradation proceeded in the early 1990s, protection rackets proliferated. The companies here had access to the best protection on offer, the central state’s, but they, too, had to rely on informal protection from the regime to ensure management control. So the companies muddled through the 1990s, surviving on their rent streams. Organisational continuity was underpinned by rent sharing in the context of the ruling coalition. In the case of Gazprom, and to a lesser extent, RAO UES, their rent streams stabilised Russian society and the state. Informal rent streams channelled through Minatom and Transneft kept their respective industries afloat, with a share channelled towards the ruling coalition in return for patronage. Lukoil also shared its profits with the regime, in a more explicit exchange of support for Yeltsin in return for tax
exemptions. This was also an investment in relational capital, to ensure protection for its managers’ property rights.

This affected power relations between the state and the companies. The dependence of the ruling coalition and societal stability on the companies gave them power in the ruling coalition, particularly over how state power was wielded against themselves. Against Gazprom, the government found itself with its powers limited not by the state’s institutional framework, but by Vyakhirev’s influence inside the ruling coalition and on Yeltsin himself.

Company managers that failed to share a part of company rent streams with the right people were vulnerable, especially when governments changed. When Mikhailov (of Minatom), Dyakov (RAO UES) and Chernyaev (Transneft) were replaced in 1997 and 1998, this was related to Yeltsin’s dismissal of Chernomyrdin as prime minister. Afterwards, state organisations were no longer informally restrained by the prime minister. But the new managers were still chosen on the strength of their personal loyalties, and replaced as governments changed again.

The importance of informality in this period points towards different sets of linkages between informality and formality in institutional development. The imperative to uphold privileges, especially privileged rent extraction, leads to a preponderance of informality and personal relations over formality and impersonal relations. This extends to property rights protection, which is also selective and dependent on the property owner’s relations to the ruling coalition. The situation for each case before the restoration of state capacity is summarised in Table 8.1.
### Table 8.1 State–company relations, in respect to rent, access to property, regime involvement and foreign operations, before restoration of state capacity

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<tbody>
<tr>
<td><strong>Rent sharing in Russia:</strong> formal/informal</td>
<td>Overwhelmingly informal →2000</td>
<td>Overwhelmingly informal, also substantial within sector →2005</td>
<td>Formal and informal →2000</td>
<td>Overwhelmingly informal →1999</td>
<td>Overwhelmingly informal, supplemented by some, increasingly more formal 1992–2001</td>
</tr>
<tr>
<td><strong>Property rights: If private, weakly or strongly protected; if state, state access to property, or denied?</strong></td>
<td>State controlled, but state denied access →1999</td>
<td>State controlled, but state denied access →2001 Unsuccessful efforts to gain access for state 2001–5</td>
<td>Increasing share of private ownership, weakly protected, but strengthening protection for property rights supplemented by good ties to regime →2000</td>
<td>State controlled, but state denied access →1998</td>
<td>State and private ownership, but state denied access →2001</td>
</tr>
<tr>
<td><strong>Company proximity to state/regime</strong></td>
<td>Close to regime at expense of state →1998–9</td>
<td>Sector autonomy with some regime protection, combined with occasional open contestation of sector control →2003</td>
<td>Company autonomy combined with selective ties, set by company, with regime and state →2000</td>
<td>Close to regime, partly at expense of state →1998</td>
<td>Part of regime at expense of state, but available for state through regime →2001</td>
</tr>
<tr>
<td><strong>Russian state support for post-Soviet operations</strong></td>
<td>Tacit, but little interest →2002</td>
<td>Lack of state access to foreign operations →2004</td>
<td>Tacit, mostly from regime →2000</td>
<td>Strong state support, direct access between state and company →1999</td>
<td>Strong state support, direct access between state and company</td>
</tr>
<tr>
<td><strong>Rents from post-Soviet</strong></td>
<td>Little, but possibly</td>
<td>Informal rents from</td>
<td>Mainly through</td>
<td>Yes, price differential</td>
<td>Yes: (1) price</td>
</tr>
<tr>
<td>Category</td>
<td>Action</td>
<td>Year(s)</td>
<td>Justification</td>
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<tr>
<td>Operations channelled to Russia</td>
<td>some from barter trade</td>
<td>→2002</td>
<td>Uranium exports →2000 taxation, but company operated tax minimisation →2003 as result of transit monopoly for non-Russian oil retained by Transneft differential as result of transit monopoly for non-Russian gas retained by Gazprom; (2) equity deals opened channel for post-Soviet rents to Russia</td>
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<tr>
<td>Rents from post-Soviet operations shared in post-Soviet states</td>
<td>Yes, with populations through price subsidies and arrears, possibly also with elite from barter trade →2002</td>
<td></td>
<td>Unclear Formal through taxation As little as possible Yes, shared with post-Soviet populations through price subsidies and arrears, possibly also with elite through trade arrangements →2004</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exercise of coercion/political influence towards post-Soviet states</td>
<td>Yes, through unannounced blackouts</td>
<td></td>
<td>Yes, through pressure and maintenance of dependence by control of fuel and technology Only positive presence Yes: by (1) (threat of) depriving post-Soviet states of gas transit; (2) by (threat of) debt recovery or reduced gas supply</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maintains dependence on Russia in post-Soviet region</td>
<td>Yes, for electricity supply and investment</td>
<td></td>
<td>Yes, for development of nuclear energy industry in Ukraine and Kazakhstan No Yes, maintained Central Asian transit dependence on Russia, esp. in relation to Kazakhstan Yes: (1) maintained Central Asian transit dependence on Russia; (2) maintained dependence on gas transit rents in esp. in Ukraine</td>
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As shown in the table, actors from central state organisations struggled to gain access to and extract rent from the state-owned companies. There was a lack of differentiation between state and private interests in the companies. For state actors, access to state-owned property went through the regime. As the regime offered protection for sector and company autonomy in return for limited rent sharing, managers of state-owned companies could make decisions about state-owned companies in a way that resembled a property relationship. Weak property rights protection and a lack of access to state property for state actors went hand in hand – both were symptoms of a state that could not uphold basic property rights, except through the ruling coalition.

The table also illustrates how, in the 1990s, a considerable share of rent from state-owned companies was channelled through informal channels, to the benefit of a select circle of claimants, as opposed to formal channels accessible to state actors, with wider public distribution. The state-owned companies more closely tied to the regime offered the regime easier access to rent streams. Minatom, with significant informal rent streams from uranium trade, was less accessible as a source of authoritarian durability. In contrast, RAO UES, Transneft and Gazprom could provide societal stability and regime support. Their considerable rent streams made them reliable sources of patronage. Formalised and informal subsidies channelled through RAO UES and Gazprom stabilised society throughout most of Russia’s regions. Select rent sharing with regional elites through the companies ensured support for the regime. At the very top, rent streams from Gazprom’s European gas sales in particular were indispensable in securing cohesion in the ruling coalition, thereby directly underpinning regime stability. Transneft had a somewhat different relationship with the regime. It was important for rent extraction from oil sales, and stabilised the oil industry with oil regions. But it was also an instrument of state
control and coercion in relations with oil companies. It had a narrower impact in wider society than Gazprom or RAO UES, but was still central to the regime’s durability.

Lukoil, on its side, also engaged in societal and regime stabilisation, but to a more limited extent. Its price freezes and voluntary contributions were important, but limited, and explicitly agreed. This gave it a visible role in supporting regime stability, while it enjoyed a more distanced and partly independent relationship with both the ruling coalition and the state.

Through the state-owned companies, the regime and the state gained access to different tools for societal and elite stabilisation. With them came the possibility of buying off potential competitors for power, as demonstrated openly in the 1996 presidential election. These companies were part of a rent sharing system that also reduced the general societal and elite pressure for power sharing and institutional development. Institutional development in the state slowed down, at the expense of keeping the regime in power. Pressure for company reform came from state actors, and in the 1990s this was staved off with reference to the companies’ importance to regime and societal stability. The slowing down of reform in a period of crisis was clearly a consequence of resource abundance, or more precisely, abundant resources that the regime could employ relatively easily, and through informal means. These resources made it possible for the regime to prioritise to maintain the status quo in regard to itself, and any pressures for reform of the state and state-owned companies implicitly also challenged the regime.

8.1.2 Infrastructure as a power mechanism

Soviet legacies meant that energy companies held the keys to Russia’s staying power in the post-Soviet region. The infrastructural power of the Russian state extended beyond its
borders from the beginning, and with it, rent sharing and societal stabilisation through energy companies included the post-Soviet region. Soviet infrastructure and continued energy dependence placed RAO UES, Gazprom and Transneft in charge of tools with which to influence political and societal stability, and indirectly, also economic development, in post-Soviet states. With continued subsidisation of gas, and acceptance of arrears and slow debt recovery amid high inflation, RAO UES, Gazprom and Minatom shared their rent streams with post-Soviet populations and governments. Payment and debt recovery by barter made it possible to channel rents from energy trade into informal, even illicit channels, to select claimants in Russia and abroad. The distinction between state-owned companies and private interests in the companies eroded also in foreign operations.

In the early 1990s, this was possible because of state fragility and weakness, but it also served to reinforce this weakness. With respect to the post-Soviet region, state organisations were not in a position to coordinate, support, or otherwise supervise companies’ foreign operations, let alone develop a strategy for the economic side of foreign policy. This applied in particular to Minatom, whose subsidiaries pursued their foreign operations rather autonomously of the state and often beneath government radar. There was more informal access to Gazprom’s foreign operations, but this again strengthened the regime, not the state. With Lukoil, it was a case of stepping into the challenge of driving Russian foreign policy in the post-Soviet region where state organisations failed to deliver.

But the companies were not altogether autonomous of the Russian state when pursuing their foreign operations. Because of their importance as providers of energy, rents and stability in the post-Soviet region, the state-owned companies could be, and were, used to
coerce post-Soviet states into positions favourable to the companies, and to the Russian state. By their sheer dominance in the energy sectors of the post-Soviet region, which company managements often nurtured with support from the Russian state, these companies also maintained dependence on the Russian state in the region. In this first decade after the break-up of the Soviet Union, both the coercion and the maintained dependence were seen from Russia as a natural expression of economic and political realities.

8.1.3 The state restored

Relations between the state and companies changed again, beginning in 1998–9 when state actors initiated changes that eventually increased state capacity. State actors made use of the structure of interaction in a different way than before, with the aim of acquiring greater access to the companies, with a greater share of their rent streams. When doing this, they could use the formal mechanisms of state power, and also, to a variable extent, the informal mechanisms available to the regime. The formalised structures in the institutional framework were employed to reinforce state control over and access to state-owned companies, and to exercise state power in the economy, affecting privately owned companies. Informal regime mechanisms, for example, personal loyalty between company managers and the president, or changes to informal rent streams, had a supporting role in the restoration of state capacity. At the same time, these changes also strengthened the regime’s position, its power, within the elite and underlined how the regime was essential in managing the state. Where the informal structures in the institutional framework had previously partly contradicted, and partly trumped, formal institutions, they now corresponded with and supported them to a greater extent. But this did not mean that the
formal side of the institutional framework gradually turned decisive, to fully enable the state independently of the regime.

The state now, after approximately 2000, had increased capacity to deliver an institutional framework for economic development, as seen in the case of RAO UES, but the process proceeded unevenly in the economy. It was one thing to increase the state’s despotic power. It was quite another for the regime to change the state as institutional context for companies and the patronage networks on which it relied to govern. The regime had no real interest in making the state autonomous also of itself.

With the state in a better position in respect to the companies than before, state despotic and infrastructural power reinforced one another in a positive spiral. Better state access to state organisations meant that the policymaking potential that was always there could now be employed to undertake a wider range of actions without negotiation with society. This increased despotic power could again be employed to penetrate the territory and implement decisions. This affected the companies under study here. They could now become tools of the state for real and not only state-owned companies that served the regime.

While all the companies were affected by this, Lukoil, as a private company, could continue to support the regime while maintaining, and increasing, its distance from the state. Even as property rights protection weakened, the company management could set the terms for state access to the company to an extent that is by definition unavailable to state-owned companies. With a stronger state, this mattered. As seen in Table 8.2 here, the differences between Lukoil and the other cases, also visible in Table 8.1, became much more pronounced with increasing state capacity.
Table 8.2 State–company relations, in respect to rent, access to property, regime involvement and foreign operations, after restoration of state capacity

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<tbody>
<tr>
<td><strong>Rent sharing in Russia: formal/informal</strong></td>
<td>Formal, some informal (price subsidies) 2000–</td>
<td>More formal than before, but somewhat opaque. Rosatom also rent claimant, 2007–</td>
<td>Formal and increasing, with some (increasing) informal (CSR etc.) 2000–</td>
<td>Increasingly formalised, but significant informal rent sharing. Also used as tool for rent extraction from oil companies, 1999–2005</td>
<td>Formal through taxation and dividends and informal through price subsidies and CSR, formal and informal balanced against each other 2001–</td>
</tr>
<tr>
<td><strong>Property rights: If private, weakly or strongly protected; if state, state access to property, or denied?</strong></td>
<td>State access 1999–2009</td>
<td>State access restored 2005–</td>
<td>Weakening, necessary to pursue additional protection by good relations with regime 2000–</td>
<td>State access restored 1999–2009</td>
<td>State access restored mainly through regime 2001–</td>
</tr>
<tr>
<td><strong>Company proximity to state/regime</strong></td>
<td>Close to state, to some extent contact with regime 2000–2008</td>
<td>Much closer to the state, but at top secured by regime, 2005–</td>
<td>Less close ties with regime, closer ties with state 2000–</td>
<td>Close to state while loyal to regime 1999–2005</td>
<td>Closer to the state, but at top secured by regime, 2001–</td>
</tr>
<tr>
<td><strong>Russian state support for post-Soviet operations</strong></td>
<td>Support and interest, considerable autonomy in exercise 2003–</td>
<td>State support, but with considerable Rosatom autonomy in exercise 2007–</td>
<td>Support and interest exchanged for negotiated loyalty at home 2000–</td>
<td>Strong state support and increasing interest, direct access between state and company 1999–</td>
<td>Strong state support, direct access between state and company</td>
</tr>
<tr>
<td><strong>Rents from post-Soviet operations channelled to Russia</strong></td>
<td>Equity deals opened channel for post-Soviet rents to Russia 2003–</td>
<td>Unclear 2005–</td>
<td>As little as possible, more limited use of tax minimisation 2003–</td>
<td>Yes, price differential as result of transit monopoly for non-Russian oil retained by Transneft</td>
<td>Yes: (1) price differential as result of transit monopoly for non-Russian gas retained by Gazprom; (2) equity deals</td>
</tr>
<tr>
<td><strong>Rents from post-Soviet operations shared in post-Soviet states</strong></td>
<td>Yes, through (1) formal taxation and (2) to some extent informally in equity deals (not confirmed) 2003–</td>
<td>Unclear</td>
<td>Through taxation, otherwise unclear</td>
<td>Formal taxation. Transneft used as tool to reduce post-Soviet rent sharing from oil transit in general</td>
<td></td>
</tr>
<tr>
<td><strong>Exercise of coercion/political influence towards post-Soviet states</strong></td>
<td>Yes: (1) through unannounced blackouts; (2) through pressure through price 2001–; (3) by enabling Gazprom pressure 2003–</td>
<td>Yes, through pressure and maintenance of dependence by control of fuel and technology</td>
<td>Occasionally</td>
<td>Yes, by (threat of) depriving post-Soviet states of oil transit</td>
<td></td>
</tr>
<tr>
<td><strong>Maintains dependence on Russia in post-Soviet region</strong></td>
<td>Yes, for investment in electricity</td>
<td>Yes, for development of nuclear energy industry in Ukraine and Kazakhstan, and for NPP development in Belarus</td>
<td>No</td>
<td>Yes, maintained Central Asian transit dependence on Russia, esp. in relation to Kazakhstan</td>
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<td></td>
<td></td>
<td>Yes: (1) maintained Central Asian transit dependence on Russia; (2) maintained dependence on Russia in energy sector development in Armenia and (3) on rent from transit in Ukraine</td>
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Transneft and Rosatom were closer to the state, and more accessible, than the others. Gazprom was also accessible, but it was, additionally, subject to interference by Putin. Inter RAO maintained a slightly different position under Chubais. It would receive state, and Putin’s, support, when this was needed, but otherwise it maintained a somewhat greater distance from central state organisations. Lukoil, however, was not directly accessible. Instead, state support abroad was exchanged for Lukoil’s loyalty at home, and while the exchange was most likely agreed only implicitly, interaction with the state seems to have consisted of considerable negotiation. Not being state-owned and having a more indirect relationship with state organisations, Lukoil nevertheless interacted considerably with the state. But there was less interaction over foreign operations and foreign policy.

For the state-owned companies, increased state capacity meant that they now had to serve the state to a greater extent than private interests, at least private interests outside the regime. Sector autonomy in return for informal support and limited rent sharing with the regime was no longer an option. The state had to have access to the companies as well. Crucially, informal rent streams were now slowly but steadily redirected wholly towards the regime, resulting in greater stability in the regime, and in the state.

There were also greater resources to share, as shown in Graph 2.1. This affected both formal rent from taxation and dividends, and informal rent streams. The formal rent streams were shared more widely with the population and secured support for the status quo. The informal rent streams were again shared selectively among the supporters of the ruling coalition. With greater resources, rent addiction in Russian society increased and may have affected a greater share of the population.
State capacity was therefore restored in a specific way. State despotic power over companies increased, in a way that subjected the state itself to the regime. As under Yeltsin, the imperative of remaining in power trumped considerations of strengthening the state.

8.1.4 Energy as a tool of foreign policy

Greater state capacity meant increased capacity to support company operations in the post-Soviet region, and to use them as tools of the Russian state there. In Table 8.2 there is a more varied and comprehensive energy imprint left by Russian state companies in the post-Soviet region, than in Table 8.1.

Energy operations abroad, or control of export pipelines, became tied even more closely to the pursuit of foreign policy. The state now aimed to direct companies’ foreign operations to a greater extent. And the companies did experience more coordination and support, all in all a welcome change. This did not amount to a strategy or great coherence on part of the state. Especially wherever Gazprom was concerned, the concerns of maintaining its control of the domestic UGS grids overruled any substantial cooperation with and accommodation of other Russian companies, also abroad. This created problems for Lukoil, especially in its gas production in Uzbekistan. Gazprom’s handling of gas relations towards Turkmenistan from 2009 also displayed to what extent it determined Russia’s foreign policy towards that country.

In RAO UES and Gazprom, greater state capacity went hand in hand with company strategies for the post-Soviet region that were based on sound business practice. Where these companies before had shared rents with post-Soviet populations through price subsidies and arrears, they ceased to do so. Rent sharing with elites continued, although it
is difficult to know the full extent of this. There were more channels for rent from post-
Soviet operations that directed it to Russia. The Russian state now held stakes in domestic
energy development in Georgia (Inter RAO), Ukraine (Gazprom, Rosatom and Transneft),
Kazakhstan (Rosatom, Transneft and Gazprom), Moldova (Gazprom and Inter RAO),
Belarus (Gazprom and Rosatom), Turkmenistan (Gazprom) and of course Armenia (Inter
RAO and Gazprom).

Post-Soviet energy dependence on Russia played a different role when prices increased.
With gas prices in particular, the prospect of rising prices could also be, and was, used as a
tool to coerce post-Soviet governments into positions favourable towards Russia. In the
case of Gazprom, the development of excess pipeline capacity that bypassed Belarus and
Ukraine placed additional pressure on their governments in negotiations over transit terms.
In the case of Transneft, new pipelines on Russian soil were also used, with little success,
to pressure Latvia and Lithuania. In this way, transit avoidance in oil and gas also turned
dependence into a potential coercive tool. Where the threat of removing oil and gas
streams, and post-Soviet rent sharing from these streams, was a stick, maintaining the
actual streams was a carrot. Some aspects of rent addiction extended beyond Russia and
into the post-Soviet states.

More broadly, rising gas prices were also used to apply pressure towards Moldova (over
conflict resolution in Transnistria), Armenia (on equity deals and energy cooperation with
Iran) and Ukraine (on comprehensive energy deals). By extension, when maintaining
energy dependence on Russian companies, Gazprom and in Armenia also Inter RAO could
now capitalise on this in financial terms, while also offering themselves up as a political
tool to the Russian state. Both Transneft and Gazprom maintained Russia’s central role in
oil and gas transport from the Caspian Basin to European markets. Here, it is sometimes difficult to tell where considerations of defending their domestic monopolies ended, and the use of these monopoly positions as tools in relations with Central Asian states commenced. By capturing price differentials, they also profited from their monopolies.

8.1.5 The regime calls the shots

Table 8.3 below shows how, in the last years under study here, state capacity again decreased somewhat, and the regime grew stronger. This affected state relations with the companies. While state–company relations remained roughly as before in many respects, state access to Inter RAO and Transneft was now – from around 2009 – again to a greater extent maintained through the regime. The regime had realised the potential that was always there to prey on the state, and this now visibly affected these companies. State access to Gazprom had always been secured through informal mechanisms available to the regime. However, it was used more openly as a tool of the state from 2009 onwards, and it shared less of its rent streams with claimants in the post-Soviet region.

8.2 The state, resource abundance, and regime durability

The increase in the state’s capacity to control and develop infrastructure, collect taxes, and negotiate from a more superior position of power with the elite, which took place after the 1998 financial crisis and peaked with the Yukos affair, has here been taken for granted. My concern has been more in seeing how state capacity affected state–company interaction and companies’ responses, than in explaining why it increased.
Table 8.3 The growing strength of the regime at expense of the state

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<th></th>
<th>RAO UES/Inter RAO</th>
<th>Minatom/Rosatom</th>
<th>Lukoil</th>
<th>Transneft</th>
<th>Gazprom</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rent sharing in Russia: formal/informal</td>
<td>Largely as before</td>
<td>Largely as before</td>
<td>Largely as before</td>
<td>Further formalisation, prolonged informal rent sharing through CSR and construction projects, 2005–</td>
<td>Largely as before</td>
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<tr>
<td>Property rights: If private, weakly or strongly protected; if state, state access to property, or denied?</td>
<td>State access, but some decline 2009–</td>
<td>Largely as before</td>
<td>Largely as before</td>
<td>State access mainly through regime 2009–</td>
<td>Largely as before</td>
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<tr>
<td>Company proximity to state/regime</td>
<td>Somewhat closer to regime again at some expense of state 2009–</td>
<td>Largely as before</td>
<td>Largely as before</td>
<td>Somewhat closer to regime again at some expense of state 2009–</td>
<td>Largely as before</td>
</tr>
<tr>
<td>Russian state support for post-Soviet operations</td>
<td>Largely as before</td>
<td>Largely as before</td>
<td>Largely as before</td>
<td>Largely as before</td>
<td>Largely as before</td>
</tr>
<tr>
<td>Rents from post-Soviet operations channelled to Russia</td>
<td>Largely as before</td>
<td>Largely as before</td>
<td>Largely as before</td>
<td>Largely as before</td>
<td>Largely as before</td>
</tr>
<tr>
<td>Rents from post-Soviet operations shared in post-Soviet states</td>
<td>Largely as before</td>
<td>Largely as before</td>
<td>Largely as before</td>
<td>Largely as before</td>
<td>To a lesser extent 2009–</td>
</tr>
<tr>
<td>Exercise of coercion/political influence towards post-Soviet states</td>
<td>Largely as before</td>
<td>Largely as before</td>
<td>Largely as before</td>
<td>Largely as before</td>
<td>More openly than before 2009–</td>
</tr>
<tr>
<td>Maintains dependence on Russia in post-Soviet region</td>
<td>Largely as before</td>
<td>Largely as before</td>
<td>Largely as before</td>
<td>Largely as before, but this policy backfires</td>
<td>Largely as before</td>
</tr>
</tbody>
</table>
Exogenous changes were central in the process of increasing state capacity. And here, resource abundance mattered. Post-crisis recovery growth drove up oil production from 1999. The state began to extract resources from economic activity to a greater extent, especially when tax reform and increased state capacity, also in implementation, led to increased tax extraction from oil companies. With the oil and natural resource price boom, there was also more to extract across all resource industries, and especially in the oil and gas industry.

8.2.1 Regime cohesion, elite support, and rent addiction

One central endogenous foundation of increased state capacity was the renegotiated, broad and inclusive ruling coalition, a regime. After the 1998 crisis, the entire Russian elite understood that it was no longer possible to muddle through in a perpetual status quo, because the status quo was not sustainable. This enabled the creation of a new ruling coalition, gathered around Vladimir Putin. It was a coalition for state restoration, intended to drive state development forward. It had considerable support in the state organisations central to implementation and policy development for a stronger state. Putin’s more integrated regime increased coherence among state organisations, and facilitated policymaking and implementation. It also enabled greater resource extraction and thereby released even greater state despotic power. Gradually, as regime cohesion increased, it could benefit from the potential that was always there to use state power as a source of authoritarian durability. Putin’s regime not only survived, it thrived.

The massive increase in rent streams from resource extraction between 2002 and mid-2008, followed by renewed oil price recovery to a high level between 2009 and 2014, created incentives for the regime to remain in power, and endowed it with abundant
resources through informal and formal rent streams. At the top of these rent streams, the regime could reward loyalty and support in both the elite and the general population. With the abundance of resources available, there was enough to weaken any potential threat to the status quo, in the elite and in the general population. Increasing resources also created incentives for the wider elite to remain loyal to the regime. Rent addiction, and the threat of removal of rent, was an effective tool also inside Russia. It underpinned ruling coalition cohesion and wider elite acquiescence.

8.2.2 Resource abundance and slowed institutional development

As long as there were sufficient resources available, institutional development need not be prioritised. Institutional reform would not only threaten regime cohesion and durability. Resource abundance in this period also meant that it was possible to substitute for reform and change by ruling through manual control and dispense selective patronage. So in the period of growing state capacity, the pressures from outside the ruling coalition for institutional development gradually had less effect in bringing about actual reform. The regime restored state capacity up to a certain level, all the while also employing the state for enrichment and authoritarian durability. As the state was now more powerful, its usefulness as a source of regime stability also increased. But the state could not be empowered further, to a level at which it would weaken the regime’s hold on power by removing privileges and establishing institutions that distributed informal rents on an impersonal basis. In this way, rent addiction, combined with the regime imperative of maintaining stability through privilege, shaped Russia’s political landscape and the state.

All the same, the restoration of state capacity did bring limited institutional development in the 2000s. In all cases, specialisation among different types of organisations increased over
time, and responsibilities between company and state organisations were defined more clearly. Ownership unbundling and market institutions in the electricity sector, reform in Rosatom, internal modernisation in Transneft and Gazprom, active state implementation of gas and oil industry and legislation, were all processes that led to a clearer separation between state and private, economic, policymaking and implementation organisations. While Gazprom in the 2000s participated in policy formation, it no longer regulated itself in the manner of the 1990s. Lukoil no longer substituted for a lack of foreign policymaking, and Rosatom was subject to more specialised oversight mechanisms.

Along with changes that included institutional specialisation, development, and increasing transparency, there remained a considerable informal component at the top, which secured that the state remain dependent on the regime to function. One important difference from before was that the informal constraints during Putin’s second presidential period were embedded in the state’s formal institutional context. The Sibneft sale to Gazprom was the formal property transfer that completed the modification of the ruling coalition, caused by Abramovich’s (voluntary) relegation within it. Inter RAO was preserved as one organisation after the dissolution of RAO UES in a way that enabled regime influence and rent sharing through the company. The extent of state access to Rosatom hinged on the personal loyalty of its central managers to the president. Transneft’s privileged shares ceased to be a source of conflict with the state when they changed hands in a way that favoured the regime. Even Lukoil’s limited steps to mitigate its loss of participation in policymaking took place in an informal context. A weak energy minister had to yield to the regime where a stronger one could have stood firm. This was the essence of being a state bureaucrat and not a central member of the ruling coalition under Putin. To be strong, you had to be part of the regime.
8.3 The limitations of this study

Of course, Russia’s bilateral relations with its post-Soviet neighbours illustrate well how it takes two to tango. In each bilateral relationship characterised by dependence, there is a non-Russian side that also participates in maintaining, and managing, that dependence. In the context of limited popular influence on domestic and foreign policy, the most difficult aspects of bilateral relations with Russia are often kept outside public scrutiny. This is not to say that public scrutiny would have made policy decisions related to energy dependence and foreign policy any easier. Post-Soviet governments have faced difficult choices where considerations of political survival, domestic stability, national development, national security and the need, for all these reasons, to preserve a workable bilateral relationship with Russia were balanced against the political, human and economic costs of withdrawing from dependence on Russia. At best, pros and cons were considered consciously. Although this thesis has not discussed the non-Russian side of post-Soviet energy relations, it is safe to say that what to some post-Soviet state leaders appeared a narrow range of options for national development, to others seemed more like opportunities for personal gain.

Time is another limitation to the findings here. The investigation was directed towards changes in relations between the companies and the state. But how much can one reasonably expect to become manifest within the relatively short time span of two decades? As time passes, the continuities between the 1990s and the 2000s are bound to emerge as more fundamental than it has been possible to convey here. Continuity mixed with change is, of course, the essence of institutional dynamism.

This investigation does not discuss all possible sources of what the literature refers to as the rise of Russia as an energy power, or a re-assertive foreign policy. From this attempt to
integrate our understanding of the role of energy in Russia’s political development with that of policy in the post-Soviet region, I can conclude that once the Russian state grew stronger, foreign energy operations and foreign policy changed and turned more re-assertive. This included more coercion, and continued Russian dominance and dependence on Russia, in the energy sector and individual economies of post-Soviet states. In some cases this could be converted to influence over post-Soviet governments’ policies. While converting oil wealth to influence was not always easy, it did actually happen – at least when combined with tools offered by other energy industries.

But here, I do not really discuss why this happened, and that was not the aim of the investigation. It will have to be left to further study. My findings here point towards the regime, and its aims, as playing a crucial role. When these combine well with company strategy, there emerge powerful shared interests that can drive foreign policy relationships.

8.4 Theoretical insights

8.4.1 Social orders and foreign policy

Are states where a limited access order dominates different as regards foreign policy? In the theory chapter, I argued that institutions in a limited access order constrain differently than those of an open access order, because political leaders have direct access to economic resources and can draw on privileges and dispense patronage in the exercise of economic and political power. My findings support this argument. But to what extent is it possible to say that this direct access to economic resources for Russian political leaders spilled over into foreign policy? To some extent, it did, not least in the case of Gazprom. Putin’s direct interference gave Gazprom’s actions vis-à-vis post-Soviet states a special role in foreign policy, beyond its more common role as an integral part of Russian foreign
policy. This came down to a lack of institutional boundaries, a lack of autonomy and overlapping responsibilities, between Gazprom and the Russian state. This blurring of political and economic organisations at the peak of the state points towards the continued use of state-controlled companies as tools of foreign policy. It remains to be seen whether such use will become less widespread and negotiated, or more direct and persistent.

Looking at companies as tools of the state and, in the context of a limited access order, as sources of authoritarian durability explains more of the mutual interaction – at home and abroad. The ruling coalition needs to interact with companies, because in a limited access order, the state does not just extract resources through taxation, uphold institutions, and develop policy. Its power mechanisms are also used by the ruling coalition to maintain its hold on power. This affects some companies across a wide range of operations. Where a company’s interaction with the state includes interaction over foreign operations, the regime, too, gains access to what would otherwise be ordinary commercial operations.

The need to keep the ruling coalition together by maintaining informal rent sharing, and thereby sustain the regime, means that an authoritarian leader is never truly free of constraints in the manner of the typical dictator of the popular imagination, but there can be more freedom in the exercise of foreign policy than in domestic affairs. There is a parallel to democracies here, where foreign policy choices are rarely decisive for incumbent re-election. However, the opaque constraints on leaders in limited access orders arguably make foreign policy coordination and formation less of a priority. Where the privileges of one group within the ruling coalition are concerned, the imperative of maintaining them is likely to trump most other considerations. Considerations of coherence and coordination, also in foreign policy, become less important. The prominence of
Gazprom’s commercial interest in Russia’s relations with Central Asia in the 2000s is an instructive example of how a privileged position carried over into foreign policy, to the detriment of Russia’s other interests, such as protection of its own citizens in Turkmenistan, supporting Lukoil’s development, or maintaining Russia’s overall position in the region.

8.4.2 Access and participation

Access and participation in the context of a process of mutual adaptation are useful concepts with which to study the development of relations between organisations, here, state organisations and state companies. These concepts capture another dimension of inter-organisational interaction than ownership relations. After 1995, ownership relations changed relatively little in the cases under study here, but their access and participatory relations with central state organisations altered considerably. The concepts have explanatory power when studying how actors interact with each other and institutions change. This extends beyond what is normally captured in analyses that concern themselves mostly with formal rules captured on paper. With access and participation, both the formal and informal sides of an institutional framework come under scrutiny.

As institutions in a limited access order work differently from those in open access orders, institutional change needs to be observed in a way that captures informality and privilege. Firmly upheld property rights, and other institutions, constrain both state and private actors predictably and transparently, but in a limited access order they constrain differently, and they are not firmly, impersonally, upheld by the state. Access and participation can then capture the variation of other inter-organisational relationships, when, for example, lines are being drawn, zones of responsibility decided, or shared, or indeed, can shed light on
why nothing happens. Following this over time, one sees how power relations between the actors change.

8.5 Further research
Although Russia after the break-up of the Soviet Union presents scholars with a special case displaying some unique features in how it relates to its neighbours, the framework applied here has made it possible to pin down the further development of those relations in a way applicable also to other states. Perfect analogies do not exist, and if they had there would be little room in which to exercise our analytic capacity. Interesting parallels and similarities certainly exist. With a conceptual framework based on the development of a social order, and within it the interaction and mutual adaptation of a state and organisations that depend on it but can also function as its tools, political scientists and economists could probably understand better the states in the world that are otherwise lumped into categories like ‘emerging markets’ or ‘developing states’. As I have showed, while a social order framework can tell us much about state development, it can also guide analyses of relations between the state and organisations, and relate their development to the development of the state. It would be interesting to look at other post-Soviet states, especially Ukraine and Kazakhstan, both interesting parallels to Russia. Ukraine especially, with its oligarch-based pluralism, presents us with a fruitful case for the study of interactions between companies, state organisations, and members of changing ruling coalitions.

But do interactions between states and companies extend this frequently into foreign operations and foreign policy, as part of institutional development at home? Is Russia not a unique case in this regard? Probably not. Even if it were, the findings here merit attention as they show how energy has shaped the Russian state, and also some aspects of its foreign
policy. But they also point towards how, in limited access orders, economic organisations above a certain size cannot be apolitical because they are essential to the ruling coalition. Some of the large corporations operating in several countries today will certainly have a supporting role in their home country's ruling coalition and take part in institutional development. Economic integration in Asia, with growing interdependence and asymmetric dependencies, could be an interesting ground in which to apply a social order framework that also includes the international level. China is the obvious case, especially as its energy companies, in their search for energy sources, have developed strategies of foreign operations outside the state organisational hierarchy of foreign policy formation.
## List of abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>ACG</td>
<td>Azeri-Chirag-Gunesli fields (oil)</td>
</tr>
<tr>
<td>AIOC</td>
<td>Azerbaijan International Operating Company</td>
</tr>
<tr>
<td>ARMZ</td>
<td>(formerly) Atomredmetzoloto</td>
</tr>
<tr>
<td>bboe</td>
<td>billion barrels of oil equivalents</td>
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<tr>
<td>bcm</td>
<td>billion cubic metres (gas)</td>
</tr>
<tr>
<td>BPS</td>
<td>Baltic Pipeline System/Baltiiskaya truboprovodnaya sistema (crude oil)</td>
</tr>
<tr>
<td>BTC</td>
<td>Baku-Tbilisi-Ceyhan (oil) pipeline</td>
</tr>
<tr>
<td>BTE</td>
<td>Baku-Tbilisi-Erzurum (gas) pipeline</td>
</tr>
<tr>
<td>CGNPC</td>
<td>China Guangdong Nuclear Power Corporation</td>
</tr>
<tr>
<td>CIS</td>
<td>Commonwealth of Independent States</td>
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<tr>
<td>CPC</td>
<td>Caspian Pipeline Consortium (oil)</td>
</tr>
<tr>
<td>CPSU</td>
<td>Communist Party of the Soviet Union</td>
</tr>
<tr>
<td>CSR</td>
<td>Corporate social responsibility</td>
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<tr>
<td>EBRD</td>
<td>European Bank for Reconstruction and Development</td>
</tr>
<tr>
<td>ESPO</td>
<td>East Siberia–Pacific Ocean Oil Pipeline/Nefteprovod Vostochnaya Sibir’–Tikhii Okean</td>
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<tr>
<td>FSK</td>
<td>Federal Grid Company/Federal’naya setevaya kompaniya (electricity)</td>
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<tr>
<td>FTS</td>
<td>Federal Tariff Service/Federal'naya sluzha po tarifam</td>
</tr>
<tr>
<td>GRES</td>
<td>Condenser-type thermal power station, initially state regional power station/Gosudarstvennaya raionnaya elektrostantsiya, now often hydro-recycling power station/gidroretsirkulyatsionnaya elektrostantsiya</td>
</tr>
<tr>
<td>IAEA</td>
<td>International Atomic Energy Agency</td>
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<tr>
<td>IEA</td>
<td>International Energy Agency</td>
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<tr>
<td>IOC</td>
<td>international oil company</td>
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<tr>
<td>IES</td>
<td>Integrated Energy System (electricity)</td>
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<td>IUEC</td>
<td>International Uranium Enrichment Centre</td>
</tr>
<tr>
<td>JV</td>
<td>joint venture</td>
</tr>
<tr>
<td>ktoe</td>
<td>thousand tonnes of oil equivalents</td>
</tr>
<tr>
<td>mcm</td>
<td>thousand cubic metres (gas)</td>
</tr>
<tr>
<td>MFA</td>
<td>Ministry of Foreign Affairs</td>
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<tr>
<td>Minatom</td>
<td>Nuclear Energy Ministry/Ministerstvo po atomnoi energii</td>
</tr>
<tr>
<td>Minsredmash</td>
<td>Ministry for Medium Machine-Building/Ministerstvo srednego mashinostroeniya (nuclear industry)</td>
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<tr>
<td>mtoe</td>
<td>Million tonnes of oil equivalents</td>
</tr>
<tr>
<td>MW</td>
<td>Megawatt (1000 kW)</td>
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<tr>
<td>NDPI</td>
<td>consolidated production tax/nalog na dobyuchu poleznykh iskopaemykh</td>
</tr>
<tr>
<td>NMMC</td>
<td>Navoi Mining &amp; Metallurgy Combine</td>
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NOC  national oil company
NPP  nuclear power plant
NPT  Treaty on the Non-Proliferation of Nuclear Weapons
NWW  The conceptual framework on social orders developed by Douglass North, John Wallis and Barry Weingast
OECD  Organisation for Economic Co-operation and Development
OVR  Fatherland – All Russia (party)/Otechestvo - Vsya Rossiya
PSA  production sharing agreement
RAO UES  Russian Unified Energy System/Rossiiskoe aktsionernoe obshchestvo “Edinaya Energeticheskaya Sistema”
RUIE  Russian Union of Industrialists and Entrepreneurs/Rossiiskii soyuz promyshlennikov i predprinimatelei
SOCAR  State Oil Company of Azerbaijan
Tcm  Trillion cubic metres (gas)
tpa  tonnes per annum
TPES  Total primary energy supply
TPP  Thermal power plant
UES  United Energy System (electricity)
UGS  United Gas Supply
APPENDIX 1: MAPS, TABLES AND GRAPHS
Map 1 Transneft’s crude oil pipeline system

Map 2 Central Asia oil pipeline network

Map 3 Gas pipelines in Russia, the post-Soviet region and Europe, 2014

Map 4 Black Sea and Caspian Sea natural gas infrastructure, 2015

Map 5 Central Asia gas pipeline network, 2015

Table 1.1 Trade among Soviet republics/CIS countries, 1988–2001

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<th></th>
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<tr>
<td></td>
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<td>Russia export</td>
</tr>
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<td>1995</td>
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Percent of total trade

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<td>Na</td>
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<tr>
<td>1995</td>
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Percent of total trade

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<td>1995</td>
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Percent of total trade

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Percent of total trade

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Table 1.1. continued:
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<td>na</td>
<td>86</td>
<td>na</td>
<td>86</td>
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<td>49</td>
<td>40</td>
<td>45</td>
<td>38</td>
<td>32</td>
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<td>16</td>
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<td>58</td>
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<td>18</td>
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<td>2001</td>
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<td>23</td>
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<td>33</td>
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<td>38</td>
<td>20</td>
<td>33</td>
<td>17</td>
<td>38</td>
<td>20</td>
<td>33</td>
<td>17</td>
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</tbody>
</table>

(Freinkman et al., 2004, p.12-13)
Table 1.2  Energy dependence in the post-Soviet region, 1992–2012

<table>
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<tr>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Share of product in TPES, % (import dependence for product supply, %)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Armenia   | Oil     | 58 (100)
|          | (100)
|          | 8 (100)
|          | (100)
|          | 18 (100)
|          | (100)
|          | 15 (100)
|          | (100)
|          | 14 (100)
| Gas       | 36 (100)
|          | 63 (100)
|          | 47 (100)
|          | 58 (100)
|          | 65 (100)
| Nuclear   | 0
|          | 22 (na)
|          | 32 (na)
|          | 23 (na)
|          | 20 (na)
| Electricity, trade as percentage of TPES | 0 | -1 | 0 | -4 |
| Azerbaijan| Oil     | 50 (17)
|          | 57 (5)
|          | 33 (1)
|          | 39 (2)
|          | 36 (1)
| Gas       | 50 (40)
|          | 43 (0)
|          | 64 (43)
|          | 62 (0)
|          | 68 (0)
| Electricity, trade as percentage of TPES | 0 | 1 | -1 | -0 |
| Belarus   | Oil     | 51 (110)
|          | 38 (111)
|          | 31 (188)
|          | 28 (267)
|          | 35 (266)
| Gas       | 40 (98)
|          | 54 (99)
|          | 59 (98)
|          | 62 (99)
|          | 56 (99)
| Electricity, trade as percentage of TPES | 1 | 3 | 2 | 1 |
| Estonia   | Oil     | 20 (137)
|          | 17 (155)
|          | 20 (131)
|          | 20 (131)
|          | 17 (138)
| Gas       | 11 (100)
|          | 11 (100)
|          | 13 (100)
|          | 14 (100)
|          | 10 (100)
| Electricity, trade as percentage of TPES | -4 | -1 | -1 | -4 |
| Georgia   | Oil     | 38 (104)
|          | 42 (109)
|          | 22 (104)
|          | 30 (99)
|          | 28 (99)
| Gas       | 46 (99)
|          | 23 (100)
|          | 27 (98)
|          | 42 (99)
|          | 44 (99)
| Hydro     | 6 (na)
|          | 16 (na)
|          | 23 (na)
|          | 18 (na)
|          | 17 (na)
| Electricity, trade as percentage of TPES | 1 | .5 | 2 | -0 |
| Kazakhstan| Oil     | 28 (80)
|          | 25 (25)
|          | 26 (44)
|          | 24 (60)
|          | 18 (63)
| Gas       | 19 (77)
|          | 18 (35)
|          | 18 (97)
|          | 27 (30)
|          | 31 (16)
| Hydro     | 1 (na)
|          | 1 (na)
|          | 2 (na)
|          | 1 (na)
|          | 1 (na)
| Electricity, trade as percentage of TPES | 2 | 1 | 0 | .2 |
| Kyrgyzstan| Oil     | 38 (100)
|          | 18 (90)
|          | 15 (106)
|          | 36 (136)
|          | 43 (100)
| Gas       | 31 (96)
|          | 28 (95)
|          | 31 (97)
|          | 22 (98)
|          | 9 (93)
| Hydro     | 16 (na)
|          | 36 (na)
|          | 36 (na)
|          | 37 (na)
|          | 30 (na)
| Electricity, trade as percentage of TPES | -3 | -5 | -2 | -7 |

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Table 1.2. continued

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Latvia</td>
<td>Oil</td>
<td>42 (101)&lt;sup&gt;a&lt;/sup&gt;</td>
<td>36 (104)&lt;sup&gt;b&lt;/sup&gt;</td>
<td>35 (100)</td>
<td>39 (108)</td>
<td>37 (132)</td>
</tr>
<tr>
<td></td>
<td>Gas</td>
<td>35 (100)</td>
<td>24 (100)</td>
<td>28 (100)</td>
<td>27 (100)</td>
<td>31 (100)</td>
</tr>
<tr>
<td></td>
<td>Hydro</td>
<td>4 (na)</td>
<td>6 (na)</td>
<td>5 (na)</td>
<td>5 (na)</td>
<td>7 (na)</td>
</tr>
<tr>
<td></td>
<td>Electricity, trade as percentage of TPES</td>
<td>5</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Lithuania</td>
<td>Oil</td>
<td>37 (125)</td>
<td>37 (196)</td>
<td>27 (276)</td>
<td>30 (231)</td>
<td>36 (392)</td>
</tr>
<tr>
<td></td>
<td>Gas</td>
<td>25 (100)</td>
<td>22 (100)</td>
<td>24 (100)</td>
<td>31 (100)</td>
<td>36 (100)</td>
</tr>
<tr>
<td></td>
<td>Nuclear</td>
<td>35 (na)</td>
<td>36 (na)</td>
<td>42 (na)</td>
<td>28 (na)</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Electricity, trade as percentage of TPES</td>
<td>-4</td>
<td>-3</td>
<td>-6</td>
<td>-1</td>
<td>7</td>
</tr>
<tr>
<td>Moldova</td>
<td>Oil</td>
<td>42 (100)&lt;sup&gt;n&lt;/sup&gt;</td>
<td>25 (100)&lt;sup&gt;n&lt;/sup&gt;</td>
<td>18 (100)&lt;sup&gt;n&lt;/sup&gt;</td>
<td>20 (99)</td>
<td>23 (101)</td>
</tr>
<tr>
<td></td>
<td>Gas</td>
<td>43 (100)</td>
<td>64 (100)</td>
<td>70 (100)</td>
<td>68 (100)</td>
<td>68 (100)</td>
</tr>
<tr>
<td></td>
<td>Electricity, trade as percentage of TPES</td>
<td>-1</td>
<td>4</td>
<td>7</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>Tajikistan</td>
<td>Oil</td>
<td>23 (100)</td>
<td>15 (99)</td>
<td>15 (99)</td>
<td>19 (99)</td>
<td>26 (99)</td>
</tr>
<tr>
<td></td>
<td>Gas</td>
<td>34 (96)</td>
<td>29 (95)</td>
<td>20 (94)</td>
<td>21 (98)</td>
<td>52 (92)</td>
</tr>
<tr>
<td></td>
<td>Hydro</td>
<td>33 (na)</td>
<td>55 (na)</td>
<td>61 (na)</td>
<td>57 (na)</td>
<td>64 (na)</td>
</tr>
<tr>
<td></td>
<td>Electricity, trade as percentage of TPES</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>.3</td>
<td>-2</td>
</tr>
<tr>
<td>Turkmenistan</td>
<td>Oil</td>
<td>51 (42)</td>
<td>27 (17)</td>
<td>30 (0)</td>
<td>25 (0)</td>
<td>26 (0)</td>
</tr>
<tr>
<td></td>
<td>Gas</td>
<td>53 (0)</td>
<td>77 (0)</td>
<td>73 (0)</td>
<td>78 (0)</td>
<td>77 (0)</td>
</tr>
<tr>
<td></td>
<td>Electricity, trade as percentage of TPES</td>
<td>-4</td>
<td>-2</td>
<td>-5</td>
<td>-8</td>
<td>-1</td>
</tr>
<tr>
<td>Ukraine</td>
<td>Oil</td>
<td>18 (105)</td>
<td>13 (85)</td>
<td>11 (134)</td>
<td>12 (99)</td>
<td>10 (86)</td>
</tr>
<tr>
<td></td>
<td>Gas</td>
<td>41 (81)</td>
<td>46 (79)</td>
<td>45 (77)</td>
<td>43 (70)</td>
<td>34 (63)</td>
</tr>
<tr>
<td></td>
<td>Nuclear</td>
<td>9 (na)</td>
<td>14 (na)</td>
<td>15 (na)</td>
<td>18 (na)</td>
<td>18 (na)</td>
</tr>
<tr>
<td></td>
<td>Electricity, trade as percentage of TPES</td>
<td>-.2</td>
<td>-0</td>
<td>-.2</td>
<td>-.6</td>
<td>-1</td>
</tr>
<tr>
<td>Uzbekistan</td>
<td>Oil</td>
<td>18 (63)</td>
<td>15 (0)</td>
<td>13 (0)</td>
<td>10 (0)</td>
<td>6 (0)</td>
</tr>
<tr>
<td></td>
<td>Gas</td>
<td>75 (6)</td>
<td>80 (6)</td>
<td>84 (2)</td>
<td>86 (0)</td>
<td>89 (0)</td>
</tr>
<tr>
<td></td>
<td>Electricity, trade as percentage of TPES</td>
<td>-0</td>
<td>.2</td>
<td>-0</td>
<td>-0</td>
<td>-0</td>
</tr>
</tbody>
</table>
1 Total primary energy supply, excludes exports.
2 Indicates the percentage of a country’s total primary energy supply for which it relies on a given product. Exports are excluded.
3 Indicates the percentage of supply coming from abroad for the product in question. E.g. Latvia imported 100 percent of its gas supply. A percentage above 100 indicates that the country imported a product in excess of its domestic needs, e.g. importing crude oil in excess of its needs for re-export, possibly as oil products.
4 Includes both the category of crude oil, natural gas liquids (NGL) and feedstock, and the oil products category.
5 Net electricity trade as a share of TPES. A positive number means that the country imported more electricity than it exported, a negative number that it was a net exporter. Note that while TPES does not include net export in the supply, this table relates net export (and import) to the country’s overall energy supply. For example, in 1992, Tajikistan’s net electricity imports supplied 2 percent of TPES, while in 2012 its net electricity exports were equivalent to 2 percent of its TPES, i.e. a surplus. Also note that the net export/import does not capture interdependence. In Central Asia, and in the cases of Ukraine and Lithuania, the electricity imports and exports are considerable, but they cancel each other out to a large extent and the net flow accordingly does not reflect the aggregate trade flow.
6 All oil import consisted of oil products.
7 Imports of nuclear fuel are not reflected in energy imports.
Graph 2.1 Brent spot price, 1992–2012

FOB: Free on board

The price shown is for Brent, not Urals, due to the position of this oil grade as benchmark quality in Europe.

(EIA, 2014)
Graph 2.2. Value of total Russian exports, 2000–2010

Mill. US$

(Derived from Rosstat, 2008a, tables 25.29; 25.10; 20.15; 2012, tables 25.24; 25.10; 25.16)
Table 3.1. Synchronisation between UES (Russia) and the Integrated Energy System (IES)

<table>
<thead>
<tr>
<th>Country</th>
<th>Synchronisation with UES/IES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kazakhstan</td>
<td>2000 (July)¹,²</td>
</tr>
<tr>
<td>Kyrgyzstan</td>
<td>2000 (August)²</td>
</tr>
<tr>
<td>Tajikistan</td>
<td>2000 (August)²</td>
</tr>
<tr>
<td>Uzbekistan</td>
<td>2000 (August)–2009 ²</td>
</tr>
<tr>
<td>Turkmenistan</td>
<td>Partial parallel only from 2000</td>
</tr>
<tr>
<td>Azerbaijan</td>
<td>2004</td>
</tr>
<tr>
<td>Georgia</td>
<td>2000 (November)</td>
</tr>
<tr>
<td>Armenia</td>
<td>2004</td>
</tr>
<tr>
<td>Ukraine</td>
<td>2001 (August)</td>
</tr>
<tr>
<td>Belarus</td>
<td>2001 (February)</td>
</tr>
<tr>
<td>Moldova</td>
<td>2001 (August)</td>
</tr>
<tr>
<td>Estonia, Latvia, Lithuania (synchronous interconnection)</td>
<td>2001 (February)</td>
</tr>
</tbody>
</table>

UES and IES form a wide area synchronous transmission grid

¹ Kazakhstan has no unified electricity grid. Its northern grid is connected to Russia, its southern grid to the Central Asian system.
² The Central Asian grid disintegrated after Uzbekistan disconnected in 2009.
Table 3.2. Overview of Inter RAO’s investments in CIS member states, 2003–

<table>
<thead>
<tr>
<th>Country</th>
<th>Acquisition</th>
<th>Type of asset</th>
<th>Ownership period</th>
<th>Capacity</th>
<th>Owned through</th>
<th>Market share in country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Georgia</td>
<td>Mtkvari energetika/9th &amp; 10th units of the Tbilisi power plant</td>
<td>Thermal power plant</td>
<td>2003–</td>
<td>2 x 300 MW</td>
<td>RAO Nordic OY</td>
<td>20-30% (combined production of Tbilisi power plant and Khrami power plant)</td>
</tr>
<tr>
<td>Georgia</td>
<td>Khrami GES units no 1 &amp; 2</td>
<td>Hydropower plant</td>
<td>2003–</td>
<td>2 x 110 MW</td>
<td>Management rights</td>
<td></td>
</tr>
<tr>
<td>Georgia</td>
<td>75% of Telasi power distribution company</td>
<td>Electricity transmission and distribution to Tbilisi</td>
<td>2003–</td>
<td>5658 km</td>
<td>RAO Nordic OY</td>
<td>35%</td>
</tr>
<tr>
<td>Armenia</td>
<td>Metsamor</td>
<td>Nuclear power plant</td>
<td>2003–2012</td>
<td>815 MW</td>
<td>Management rights</td>
<td>44%</td>
</tr>
<tr>
<td>Armenia</td>
<td>Armenian National Grid</td>
<td>Electricity transmission and distribution in Armenia</td>
<td>2005–</td>
<td>29600 km</td>
<td>Interenergo BV (99 year lease)</td>
<td>100%</td>
</tr>
<tr>
<td>Armenia</td>
<td>Hrazdan River power plants</td>
<td>7 hydropower plants</td>
<td>2003–</td>
<td>560 MW</td>
<td>Management rights</td>
<td>10%</td>
</tr>
</tbody>
</table>

Continued on next page
Table 3.2 continued

<table>
<thead>
<tr>
<th>Country</th>
<th>Acquisition</th>
<th>Type of asset</th>
<th>Ownership period</th>
<th>Capacity</th>
<th>Owned through</th>
<th>Market share in country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moldova</td>
<td>Moldova GRES</td>
<td>Thermal power plant</td>
<td>2005–</td>
<td>2520 MW</td>
<td>RAO Nordic OY, from 2010 direct</td>
<td></td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>50% of Ekibastuz GRES-2</td>
<td>Thermal power plant</td>
<td>2005–</td>
<td>2 x 500 MW</td>
<td>Direct</td>
<td>12%</td>
</tr>
<tr>
<td>Tajikistan</td>
<td>75% of Sangtuda-1 (Combined Russian share)</td>
<td>Hydropower plant</td>
<td>2004–</td>
<td>670 MW</td>
<td>Direct share of 2.18% and operator</td>
<td>15%</td>
</tr>
</tbody>
</table>
Table 3.3. RAO UES ownership, 1996–2007

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The Russian state</strong></td>
<td>60</td>
<td>52,7</td>
<td>52,5</td>
<td>52,5</td>
<td>52,5</td>
<td>52,5</td>
<td>52,5</td>
<td>52,5</td>
<td>52,6</td>
<td>52,6</td>
<td>52,6</td>
<td>52,6</td>
<td>52,6</td>
</tr>
<tr>
<td><strong>Russian citizens</strong></td>
<td>-</td>
<td>8,6</td>
<td>5,5</td>
<td>5,59</td>
<td>5,5</td>
<td>4,96</td>
<td>4,61</td>
<td>4,13</td>
<td>3,44</td>
<td>3,2</td>
<td>2,89</td>
<td>3,2</td>
<td>2,26</td>
</tr>
<tr>
<td><strong>Russian organisations(^2)</strong></td>
<td>18</td>
<td>10,9</td>
<td>11,3</td>
<td>8,26</td>
<td>11,36</td>
<td>42,49</td>
<td>42,84</td>
<td>43,32</td>
<td>43,88</td>
<td>44,12</td>
<td>44,43</td>
<td>44,12</td>
<td>45,06</td>
</tr>
<tr>
<td><strong>Foreign organisations(^3)</strong></td>
<td>22</td>
<td>27,8</td>
<td>30,7</td>
<td>33,6</td>
<td>33,6</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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</tbody>
</table>

Percent of total shares


\(^1\) All numbers are for the end of the year unless otherwise indicated
\(^2\) Indicating both Russian citizens and organisations.
\(^3\) No distinction between Russian and foreign organisations from 2000.
Table 3.4. Russian electricity export, 1997–2012

<table>
<thead>
<tr>
<th></th>
<th>1997</th>
<th>1998</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002 (of which Inter RAO)</th>
<th>2003 (of which Inter RAO)</th>
<th>2004 (of which Inter RAO)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belarus</td>
<td>5,130</td>
<td>4,947</td>
<td>5,809</td>
<td>6,450</td>
<td>6,237</td>
<td>3,728 (0)</td>
<td>(3,532)</td>
<td>(1,511)</td>
</tr>
<tr>
<td>Azerbaijan</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>9.6</td>
<td>1,087 (0)</td>
<td>(50)</td>
<td>1,059 (70)</td>
</tr>
<tr>
<td>Georgia</td>
<td>210</td>
<td>157</td>
<td>74</td>
<td>269</td>
<td>45</td>
<td>350 (100)</td>
<td>(866)</td>
<td>798 (730)</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>2,740</td>
<td>2,639</td>
<td>2,107</td>
<td>1,848</td>
<td>2,461</td>
<td>2,263 (600)</td>
<td>1,793 (1,760)</td>
<td>(2,226)</td>
</tr>
<tr>
<td>Moldova</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>440 (0)</td>
<td>(879)</td>
<td>(918)</td>
</tr>
<tr>
<td>China</td>
<td>59</td>
<td>0</td>
<td>103</td>
<td>164</td>
<td>151</td>
<td>162 (10)</td>
<td>(338)</td>
<td>(338)</td>
</tr>
<tr>
<td>Mongolia</td>
<td>356</td>
<td>0</td>
<td>38</td>
<td>104</td>
<td>0</td>
<td>40 (0)</td>
<td>(40)</td>
<td>(40)</td>
</tr>
<tr>
<td>Latvia²</td>
<td>423</td>
<td>81</td>
<td>177</td>
<td>303</td>
<td>298</td>
<td>1,112 (0)</td>
<td>761 (0)</td>
<td>(690)</td>
</tr>
<tr>
<td>Finland</td>
<td>4,270</td>
<td>667</td>
<td>804</td>
<td>3,911</td>
<td>7,317</td>
<td>7,609 (130)</td>
<td>10,993 (510)</td>
<td>10,786 (3,260)</td>
</tr>
<tr>
<td>Lithuania³</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>(20)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Norway</td>
<td>183</td>
<td>0</td>
<td>0</td>
<td>0.1</td>
<td>0.1</td>
<td>(182)</td>
<td>(188)</td>
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<td>3,128</td>
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<td>185</td>
<td>231 (0)</td>
<td>214 (0)</td>
<td>25 (0)</td>
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<td>0</td>
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<td>na</td>
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<tr>
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<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Turkey</td>
<td>93</td>
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<td>0</td>
<td>180</td>
<td>93 (0)</td>
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<td>na</td>
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<td>Poland³</td>
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<td></td>
<td></td>
<td>165</td>
<td>593</td>
<td>271 (0)</td>
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<tr>
<td>Total volume of electricity export, million kWh</td>
<td>19,830</td>
<td>11,997</td>
<td>8,971</td>
<td>13,049</td>
<td>17,898</td>
<td>17,530 (850)</td>
<td>20,700 (7,982)</td>
<td>18,800 (9,971)</td>
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(continued on next page)
### Table 3.4. continued

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<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
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<th>2012</th>
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<td>2,653</td>
<td>2,902</td>
<td>29</td>
<td>3,173</td>
<td>3,698</td>
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<td>760</td>
<td>250</td>
<td>16</td>
<td>18</td>
<td>56</td>
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<td>570</td>
<td>280</td>
<td>221</td>
<td>212</td>
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<td>1,870</td>
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<td>583</td>
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<td>2,284</td>
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<td>400</td>
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<td>0</td>
<td>0</td>
<td></td>
<td></td>
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<tr>
<td>China</td>
<td>490</td>
<td>520</td>
<td>0</td>
<td>853</td>
<td>983</td>
<td>1,238</td>
<td>2,630</td>
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<td>170</td>
<td>184</td>
<td>189</td>
<td>264</td>
<td>393</td>
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<td>1,417</td>
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<td>9,720</td>
<td>11,150</td>
<td>9,871</td>
<td>10,645</td>
<td>5,231</td>
<td>7,324</td>
<td>3,794</td>
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<tr>
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<td>1,420</td>
<td>1,063</td>
<td>442</td>
<td>5,101</td>
<td>4,780</td>
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<td>0</td>
<td>0</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Hungary</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turkey</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>South Ossetia</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poland5</td>
<td>126</td>
<td>124</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>130</td>
<td></td>
</tr>
<tr>
<td>Estonia5</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total volume of electricity export, million kWh</strong></td>
<td><strong>20,930</strong></td>
<td><strong>20,520</strong></td>
<td><strong>18,140</strong></td>
<td><strong>18,220</strong></td>
<td><strong>15,770</strong></td>
<td><strong>17,650</strong></td>
<td><strong>22,700</strong></td>
<td><strong>18,364</strong></td>
</tr>
</tbody>
</table>

Million kWh. Numbers are rounded and may add up to more than the total.

For 1997 it is not clear whether the numbers include export effectuated by RAO UES for third parties. After 1997, they do not.

From 2005, Inter RAO effectuated all trade.

For 2009 and 2010 all numbers, except those for export to China and total volume, are author's calculations based on percentages of total export.

Export to RAO Nordic.

Trade in Estonia, Latvia, Lithuania and Poland was from 2004 mainly effectuated by Inter RAO Lietuva, and these numbers are not included here. However, while some Russian export later, too, went to these countries directly, some of the numbers for later years may include trade by Inter RAO Lietuva. The sources are unclear and sometimes inconsistent.
### Table 3.5. Russian electricity import, 2003–12

<table>
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<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Kazakhstan</td>
<td>5,000</td>
<td>7,080</td>
<td>3,860</td>
<td>3,680</td>
<td>3,263</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>1,973</td>
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<tr>
<td>Georgia</td>
<td>90</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>369</td>
</tr>
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<td>Azerbaijan</td>
<td>0</td>
<td>0</td>
<td>280</td>
<td>320</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>241</td>
</tr>
<tr>
<td>Belarus</td>
<td>0</td>
<td>0</td>
<td>20</td>
<td>50</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>4</td>
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<tr>
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<td>0</td>
<td>0</td>
<td>10</td>
<td>10</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>21</td>
</tr>
<tr>
<td>Ukraine</td>
<td>0</td>
<td>250</td>
<td>2,830</td>
<td>500</td>
<td>966</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>0</td>
</tr>
<tr>
<td>Latvia</td>
<td>0</td>
<td>210</td>
<td>190</td>
<td>40</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>0</td>
</tr>
<tr>
<td>Lithuania</td>
<td>2,390</td>
<td>3,910</td>
<td>2,950</td>
<td>510</td>
<td>446</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total import volume, million kWh</strong></td>
<td><strong>7,480</strong></td>
<td><strong>11,460</strong></td>
<td><strong>10,140</strong></td>
<td><strong>5,110</strong></td>
<td><strong>5,620</strong></td>
<td><strong>3,023</strong></td>
<td><strong>2,867</strong></td>
<td><strong>3,403</strong></td>
<td><strong>2,608</strong></td>
<td></td>
</tr>
</tbody>
</table>

*Million kWh. Numbers are rounded and may add up to more than the total.*

(Derived from RAO UES, 2008, p.151; Inter RAO, 2007, p.31; 2010b, p.58; 2012, p.28; 2014, p.59)

<sup>1</sup> It has not been possible to find any information for import in 2008 in the sources consulted.
Table 3.6. Non-payment and barter in electricity payments in the post-Soviet region, 1998–2001

<table>
<thead>
<tr>
<th></th>
<th>1998</th>
<th></th>
<th>1999</th>
<th></th>
<th>2000</th>
<th></th>
<th>2001</th>
<th></th>
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<tr>
<td></td>
<td>Export value</td>
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<td>Of which in cash</td>
<td>Export value</td>
<td>Total paid</td>
<td>Of which in cash</td>
<td>Export value</td>
<td>Total paid</td>
</tr>
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<td>9</td>
<td>1.1</td>
<td>0</td>
<td>20.5</td>
<td>0.9</td>
<td>0</td>
<td>17.2</td>
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<tr>
<td>Kazakhstan</td>
<td>64.1</td>
<td>29.8</td>
<td>17.7</td>
<td>41.35</td>
<td>46.2</td>
<td>18.8</td>
<td>28</td>
<td>27.2</td>
</tr>
<tr>
<td>Belarus</td>
<td>121</td>
<td>67.3</td>
<td>0</td>
<td>122.27</td>
<td>136.4</td>
<td>0</td>
<td>108.7</td>
<td>126</td>
</tr>
<tr>
<td>Georgia</td>
<td>4.7</td>
<td>2</td>
<td>2</td>
<td>1.4</td>
<td>0.1</td>
<td>0.1</td>
<td>4.7</td>
<td>4.6</td>
</tr>
<tr>
<td>Sum</td>
<td>274.2</td>
<td>108.1</td>
<td>20.8</td>
<td>165</td>
<td>203.2</td>
<td>19.7</td>
<td>141.4</td>
<td>175</td>
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</tbody>
</table>

Million US$, end of year

(Derived from RAO UES, 1999; 2000; 2001; 2002)
Table 3.7. Accumulated electricity debts to Russia, 1998–2000

<table>
<thead>
<tr>
<th>Debtor state</th>
<th>1998</th>
<th>1999</th>
<th>2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ukraine</td>
<td>129.4</td>
<td>83.8</td>
<td>54.7</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>419.1</td>
<td>413.5</td>
<td>414.3</td>
</tr>
<tr>
<td>Belarus</td>
<td>53.6</td>
<td>39.5</td>
<td>22.2</td>
</tr>
<tr>
<td>Georgia</td>
<td>45.6</td>
<td>46.4</td>
<td>46.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>647.7</td>
<td>583.2</td>
<td>537.7</td>
</tr>
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</table>

Million US$, end of year

(Derived from RAO UES, 1999; 2000; 2001)
Table 4.1. Organisation of Russian nuclear power industry, 1945–2008

<table>
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<th>English name</th>
<th>Russian name</th>
<th>Russian acronym</th>
<th>Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Chief Directorate</td>
<td>Pervoe glavnoe upravlenie pri SNK (Sovet narodnykh komissarov) SSSR</td>
<td>PGU</td>
<td>1945–53</td>
</tr>
<tr>
<td>Ministry for Medium Machine-Building</td>
<td>Ministerstvo srednego mashinostroeniya</td>
<td>Minsredmash</td>
<td>1953–86</td>
</tr>
<tr>
<td>Ministry for Nuclear Energy and Industry</td>
<td>Ministerstvo atomnoi energetiki i promyshlennosti</td>
<td>MAEP</td>
<td>1986–91</td>
</tr>
<tr>
<td>State Corporation for Nuclear Energy “Rosatom”</td>
<td>Gosudarstvennaya korporatsiya po atomnoi energii “Rosatom”</td>
<td>“Rosatom”</td>
<td>2008–</td>
</tr>
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</table>
Table 4.2. Global known recoverable uranium resources, 2011

<table>
<thead>
<tr>
<th>Country</th>
<th>Uranium, tonnes(^1,2)</th>
<th>Percentage of world resources(^3)</th>
</tr>
</thead>
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<tr>
<td>Australia</td>
<td>1,661,000</td>
<td>31%</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>629,000(^4)</td>
<td>12%</td>
</tr>
<tr>
<td>Russia</td>
<td>487,200</td>
<td>9%</td>
</tr>
<tr>
<td>Canada</td>
<td>468,700</td>
<td>9%</td>
</tr>
<tr>
<td>Niger</td>
<td>421,000</td>
<td>8%</td>
</tr>
<tr>
<td>South Africa</td>
<td>279,100</td>
<td>5%</td>
</tr>
<tr>
<td>Brazil</td>
<td>276,700</td>
<td>5%</td>
</tr>
<tr>
<td>Namibia</td>
<td>261,000</td>
<td>5%</td>
</tr>
<tr>
<td>USA</td>
<td>207,400</td>
<td>4%</td>
</tr>
<tr>
<td>China</td>
<td>166,100</td>
<td>3%</td>
</tr>
<tr>
<td>Ukraine</td>
<td>119,600</td>
<td>2%</td>
</tr>
<tr>
<td>Uzbekistan</td>
<td>96,200</td>
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<tr>
<td>Mongolia</td>
<td>55,700</td>
<td>1%</td>
</tr>
<tr>
<td>Jordan</td>
<td>33,800</td>
<td>1%</td>
</tr>
<tr>
<td>Other</td>
<td>164,000</td>
<td>3%</td>
</tr>
<tr>
<td><strong>World total</strong></td>
<td><strong>5,372,200</strong></td>
<td></td>
</tr>
</tbody>
</table>

\(^1\) On 1 November 2011
\(^2\) Includes reasonably assured resources and inferred resources of uranium that can be economically extracted at a price level of 130 US$/kg.
\(^3\) Fluctuates with price due to differences in the orebodies that give different production costs.
\(^4\) Kazakhstan’s own estimates are higher and place Kazakhstan’s uranium resources in the range of 17 to 19 percent of world resources.

(WNA, 2012)
Table 4.3. Soviet/Russian-built reactors, by country, 2014

<table>
<thead>
<tr>
<th>Location</th>
<th>Facility</th>
<th>Capacity MWe net</th>
<th>Current Status</th>
<th>Start Year</th>
<th>Shutdown year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Armenia</td>
<td>Armenia-2 (Metsamor)</td>
<td>375</td>
<td>Operational</td>
<td>1980</td>
<td>1989-93</td>
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<tr>
<td>Belarus</td>
<td>Ostrovets-1</td>
<td></td>
<td>Under Construction</td>
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<td></td>
</tr>
<tr>
<td>Belarus</td>
<td>Ostrovets-2</td>
<td></td>
<td>Under Construction</td>
<td></td>
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</tr>
<tr>
<td>Bulgaria</td>
<td>Kozloduy-1</td>
<td>408</td>
<td>Permanent Shutdown</td>
<td>1974</td>
<td></td>
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<tr>
<td>Bulgaria</td>
<td>Kozloduy-2</td>
<td>408</td>
<td>Permanent Shutdown</td>
<td>1975</td>
<td></td>
</tr>
<tr>
<td>Bulgaria</td>
<td>Kozloduy-3</td>
<td>408</td>
<td>Permanent Shutdown</td>
<td>1981</td>
<td></td>
</tr>
<tr>
<td>Bulgaria</td>
<td>Kozloduy-4</td>
<td>408</td>
<td>Permanent Shutdown</td>
<td>1982</td>
<td></td>
</tr>
<tr>
<td>Bulgaria</td>
<td>Kozloduy-5</td>
<td>953</td>
<td>Operational</td>
<td>1988</td>
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</tr>
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<td>Kozloduy-6</td>
<td>953</td>
<td>Operational</td>
<td>1993</td>
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</tr>
<tr>
<td>China</td>
<td>Tianwan-1</td>
<td>990</td>
<td>Operational</td>
<td>2007</td>
<td></td>
</tr>
<tr>
<td>China</td>
<td>Tianwan-2</td>
<td>990</td>
<td>Operational</td>
<td>2007</td>
<td></td>
</tr>
<tr>
<td>China</td>
<td>Tianwan-3</td>
<td></td>
<td>Under Construction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Location</td>
<td>Facility</td>
<td>Capacity MWe net</td>
<td>Current Status</td>
<td>Start Year</td>
<td>Shutdown year</td>
</tr>
<tr>
<td>-----------------</td>
<td>----------------</td>
<td>------------------</td>
<td>------------------</td>
<td>------------</td>
<td>---------------</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>Dukovany-1(^3)</td>
<td>468</td>
<td>Operational</td>
<td>1985</td>
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</tr>
<tr>
<td>Czech Republic</td>
<td>Dukovany-2(^3)</td>
<td>471</td>
<td>Operational</td>
<td>1986</td>
<td></td>
</tr>
<tr>
<td>Czech Republic</td>
<td>Dukovany-3(^3)</td>
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<td>Operational</td>
<td>1986</td>
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</tr>
<tr>
<td>Czech Republic</td>
<td>Dukovany-4(^3)</td>
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<td>Operational</td>
<td>1987</td>
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</tr>
<tr>
<td>Czech Republic</td>
<td>Temelin-1(^2)</td>
<td>963</td>
<td>Operational</td>
<td>2002</td>
<td></td>
</tr>
<tr>
<td>Czech Republic</td>
<td>Temelin-2(^2)</td>
<td>963</td>
<td>Operational</td>
<td>2003</td>
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(WNA, 2014e)

1 Soviet-Czechoslovak (Skoda) cooperation

2 Soviet-Czechoslovak (Skoda) cooperation, later completed by Westinghouse
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<td>Khmelnitski 2 &amp; Rovno 4</td>
<td>2 x V-320 reactors, 1000 MWe</td>
<td></td>
<td>operating</td>
</tr>
<tr>
<td>Iran</td>
<td>Bushehr</td>
<td>V-446 reactor, 1000 MWe</td>
<td></td>
<td>operating</td>
</tr>
<tr>
<td>China</td>
<td>Tianwan 1&amp;2</td>
<td>2 x AES-91¹</td>
<td>$3 billion</td>
<td>Built, unit 1 operation 2013, unit 2 pending</td>
</tr>
<tr>
<td>India</td>
<td>Kudankulam 1&amp;2</td>
<td>2 x AES-92</td>
<td></td>
<td>operating</td>
</tr>
<tr>
<td>China</td>
<td>Tianwan 3&amp;4</td>
<td>2 x AES-91</td>
<td>$4 billion</td>
<td>Under construction from Dec. 2012</td>
</tr>
<tr>
<td>Belarus</td>
<td>Ostrovets 1&amp;2</td>
<td>2 x AES-2006</td>
<td>$10 billion</td>
<td>Loan organised for 90%, construction start 2013 and 2014</td>
</tr>
<tr>
<td>India</td>
<td>Kudankulam 3&amp;4</td>
<td>2 x AES-92</td>
<td>$5.8 million</td>
<td>Confirmed, loan organised for 85%, construction start 2014?</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>Rooppur 1&amp;2</td>
<td>2 x AES-92</td>
<td>$4 billion</td>
<td>Confirmed, loan organised for 90%, construction start 2015</td>
</tr>
<tr>
<td>Turkey</td>
<td>Akkuyu 1-4</td>
<td>4 x AES-2006</td>
<td>$25 billion</td>
<td>Confirmed, BOO², construction start 2016</td>
</tr>
</tbody>
</table>

Continued on next page
<table>
<thead>
<tr>
<th>Country</th>
<th>Plant</th>
<th>Type</th>
<th>Est. cost</th>
<th>Status/financing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vietnam</td>
<td>Ninh Thuan 1, 1&amp;2</td>
<td>2 x AES-91</td>
<td>$9 billion</td>
<td>Confirmed, loan organised for 85%, construction start 2017 or later</td>
</tr>
<tr>
<td>Finland</td>
<td>Hanhikivi 1</td>
<td>1 x AES-2006</td>
<td>€6 billion</td>
<td>Contracted, Rosatom 34% equity, construction start 2018?</td>
</tr>
<tr>
<td>Armenia</td>
<td>Metsamor 3</td>
<td>1 x AES-92</td>
<td>$5 billion</td>
<td>Planned, loan for 50%, possibly extended up to 4.5 billion US$</td>
</tr>
<tr>
<td>China</td>
<td>Tianwan 5&amp;6</td>
<td>2 x AES2006?</td>
<td></td>
<td>Planned</td>
</tr>
<tr>
<td>China</td>
<td>Tianwan 7&amp;8</td>
<td>2 x AES2006</td>
<td></td>
<td>Planned</td>
</tr>
<tr>
<td>Vietnam</td>
<td>Ninh Thuan 1, 3&amp;4</td>
<td>2 x AES-91</td>
<td></td>
<td>Planned</td>
</tr>
<tr>
<td>Hungary</td>
<td>Paks 5&amp;6</td>
<td>2 x AES2006</td>
<td>€12.5 billion</td>
<td>Planned, loan organised for 80%</td>
</tr>
</tbody>
</table>

Continued on next page
<table>
<thead>
<tr>
<th>Country</th>
<th>Plant</th>
<th>Type</th>
<th>Est. cost</th>
<th>Status/financing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slovakia</td>
<td>Bohunice V3</td>
<td>1 x AES2006</td>
<td></td>
<td>Planned, possible 51% Rosatom equity</td>
</tr>
<tr>
<td>Jordan</td>
<td></td>
<td>2 x AES-92</td>
<td>$10 billion</td>
<td>Planned, BOO, finance organised for 49.9%</td>
</tr>
<tr>
<td>India</td>
<td>Kudankulam 5&amp;6</td>
<td>2 x AES-92?</td>
<td></td>
<td>Planned</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>Belene/Kozloduy 7</td>
<td>2 x AES-92</td>
<td></td>
<td>cancelled, but may be revived</td>
</tr>
<tr>
<td>Ukraine</td>
<td>Khmelnitski</td>
<td>completion of 2 x V-392 reactors</td>
<td>$4.9 million</td>
<td>Due to commence construction 2015, 85% financed by loan</td>
</tr>
</tbody>
</table>

(Derived from WNA, 2014d; 2015; ARKA News Agency, 2012c; 2013; 2014b)

1 AES-91 & AES-92 have 1000 MWe class reactors, AES-2006 have 1200 MWe class reactors.
2 Build, Own, Operate.
Graph 4.1. World uranium spot prices, 1987–2013

There is no formal uranium exchange in the international market. Relations between uranium suppliers and buyers are not usually transparent. Until after 2000, up to 90 percent of the world’s uranium changed ownership under long-term contracts, typically for ten years at a time.

<table>
<thead>
<tr>
<th>Month/year</th>
<th>Government-owned share (%) after sale</th>
<th>Remarks</th>
<th>Management share/Alekperov’s share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>53.2</td>
<td>Privatisation, 7.99% stake to ARCO</td>
<td></td>
</tr>
<tr>
<td>Ultimo 1995</td>
<td>42.2</td>
<td>Sold to Nikoil</td>
<td></td>
</tr>
<tr>
<td>Ultimo 1999</td>
<td>26.2</td>
<td>Sale ahead of acquisition of Komi-TEK</td>
<td></td>
</tr>
<tr>
<td>Ultimo 2000</td>
<td>15.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ultimo 2001</td>
<td>13.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ultimo 2002</td>
<td>7.59</td>
<td></td>
<td></td>
</tr>
<tr>
<td>September</td>
<td>0</td>
<td>Sold to ConocoPhillips</td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td></td>
<td>Alekperov’s share appr. 13%</td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td></td>
<td>32.6 (of which 20.6% Alekperov’s)</td>
<td></td>
</tr>
</tbody>
</table>

(Derived from Lukoil, 2000; 2001; 2002; 2003; 2010, p.113; Vedomosti, 2005; NiK, 2011f)
Table 5.2. Lukoil’s reserves, oil and gas production, 1996–2012

<table>
<thead>
<tr>
<th>Year</th>
<th>Combined reserves, bboe&lt;sup&gt;1&lt;/sup&gt;</th>
<th>Oil production, million tonnes&lt;sup&gt;2&lt;/sup&gt; (produced in Russia)</th>
<th>Gas production, bcm (natural gas)&lt;sup&gt;3,4&lt;/sup&gt;</th>
<th>Lukoil’s share of total Russian oil production, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>--</td>
<td>58.5</td>
<td>3.0</td>
<td>--</td>
</tr>
<tr>
<td>1997</td>
<td>--</td>
<td>62.3</td>
<td>3.3</td>
<td>--</td>
</tr>
<tr>
<td>1998</td>
<td>11.0</td>
<td>64.2</td>
<td>3.7</td>
<td>--</td>
</tr>
<tr>
<td>1999</td>
<td>14.2</td>
<td>75.6 (73.8)</td>
<td>4.7 (1.0)</td>
<td>24.0</td>
</tr>
<tr>
<td>2000</td>
<td>14.9</td>
<td>77.7 (75.6)</td>
<td>5.0 (1.2)</td>
<td>23.4</td>
</tr>
<tr>
<td>2001</td>
<td>16.6</td>
<td>78.3 (76.1)</td>
<td>5.2 (1.1)</td>
<td>22.0</td>
</tr>
<tr>
<td>2002</td>
<td>19.3</td>
<td>79.8 (76.9)</td>
<td>5.1 (1.2)</td>
<td>20.3</td>
</tr>
<tr>
<td>2003</td>
<td>20.1</td>
<td>81.5 (78.6)</td>
<td>5.7 (1.3)</td>
<td>18.4</td>
</tr>
<tr>
<td>2004</td>
<td>20.1</td>
<td>86.2 (82.7)</td>
<td>6.5 (1.8)</td>
<td>18.0</td>
</tr>
<tr>
<td>2005</td>
<td>20.3&lt;sup&gt;4&lt;/sup&gt;</td>
<td>105.6 (86.3)</td>
<td>7.5 (2.6)</td>
<td>18.4</td>
</tr>
<tr>
<td>2006</td>
<td>20.4</td>
<td>111.8 (89.6)</td>
<td>13.6 (9.8)&lt;sup&gt;5&lt;/sup&gt;</td>
<td>18.8</td>
</tr>
<tr>
<td>2007</td>
<td>20.4</td>
<td>113.4 (91.1)&lt;sup&gt;6&lt;/sup&gt;</td>
<td>14.0 (9.7)</td>
<td>--</td>
</tr>
<tr>
<td>2008</td>
<td>19.3</td>
<td>111.7 (89.9)</td>
<td>17.0 (12.7)</td>
<td>18.5</td>
</tr>
<tr>
<td>2009</td>
<td>17.5</td>
<td>114.4 (91.9)</td>
<td>14.9 (10.2)</td>
<td>18.7</td>
</tr>
<tr>
<td>2010</td>
<td>17.3</td>
<td>95.9 (89.7)</td>
<td>18.6 (12.7)</td>
<td>17.8</td>
</tr>
<tr>
<td>2011</td>
<td>17.3</td>
<td>90.9 (84.9)</td>
<td>18.6 (12.8)</td>
<td>16.6</td>
</tr>
<tr>
<td>2012</td>
<td>17.3</td>
<td>89.9 (84.2)</td>
<td>19.9 (na)</td>
<td>16.3</td>
</tr>
</tbody>
</table>


<sup>1</sup> Billion barrels of oil equivalents, includes gas. Proven reserves (categories A, B, C1).

<sup>2</sup> Includes gas condensate.

<sup>3</sup> The total figure includes associated gas (oil gas). Lukoil’s overall utilization of associated gas increased from 73.4 percent in 2002 to 79.7 percent in 2004, with the remainder being flared.

<sup>4</sup> Estimated according to international standards from 2005 onwards.

<sup>5</sup> Until 2006, Lukoil measured its gas production as all gas extracted, while from 2006, its gas production is measured exclusive of gas utilised by the company itself, pumped back into the fields or lost during transport (cf. Lukoil, 2007, p.32). As a result, the numbers up to and including 2005 overestimate the actual gas production significantly. From 2012, Lukoil distinguished between extracted gas and commercially produced gas (tovarnyi gaz), exclusive of gas utilised by the company itself, pumped back into the fields or lost during transport. For natural gas, the 2012 Annual report gave only the volume of extracted gas (p.27-29) and not the commercial volume.

<sup>6</sup> Estimate based on Lukoil (2009).
Table 5.3. Lukoil’s Board of Directors, 1999–2010

<table>
<thead>
<tr>
<th>Year</th>
<th>Lukoil management and pension fund</th>
<th>Independent/minority shareholder (of which non-Russian)</th>
<th>Russian government</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>8</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2000</td>
<td>7</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>2001</td>
<td>5</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>2002</td>
<td>4</td>
<td>5 (2)</td>
<td>2</td>
</tr>
<tr>
<td>2003</td>
<td>4</td>
<td>6 (2)</td>
<td>1</td>
</tr>
<tr>
<td>2004</td>
<td>4</td>
<td>6 (2)</td>
<td>1</td>
</tr>
<tr>
<td>2005</td>
<td>4</td>
<td>7 (2)</td>
<td>-</td>
</tr>
<tr>
<td>2006</td>
<td>4</td>
<td>7 (2)</td>
<td>-</td>
</tr>
<tr>
<td>2007</td>
<td>4</td>
<td>7 (2)</td>
<td>-</td>
</tr>
<tr>
<td>2008</td>
<td>3</td>
<td>8 (2)</td>
<td>-</td>
</tr>
<tr>
<td>2009</td>
<td>3</td>
<td>8 (2)</td>
<td>-</td>
</tr>
<tr>
<td>2010</td>
<td>2</td>
<td>9 (2)</td>
<td>-</td>
</tr>
</tbody>
</table>

Lukoil’s AGMs usually take place in June. The year of election to the Board is counted for each member. The exit year is not counted for a member unless the exit from the Board took place after the AGM. The total number of members is 13 for 1999, later 11.

Table 5.4. Lukoil’s operations in Kazakhstan, 1995–

<table>
<thead>
<tr>
<th>Company and field/project</th>
<th>Year(^1)</th>
<th>Partners (share)</th>
<th>Oil/gas/transport; On/off shore</th>
<th>Volume(^2)</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turgai Petroleum: Kumkol</td>
<td>1995</td>
<td>Lukoil (50)</td>
<td>Oil Onshore</td>
<td>160.8 mtoe</td>
<td>In production</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PetroKazakhstan(^3) (50)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uzen</td>
<td>1995</td>
<td></td>
<td>Oil/gas Onshore</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bozingen</td>
<td></td>
<td>Lukoil (100)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caspian Pipeline Consortium</td>
<td>1996</td>
<td>Transneft (31)</td>
<td>Transport of oil from Tengiz and Kashagan to Novorossiisk</td>
<td>Under exploitation</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Kazakhstan (19)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chevron (15)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>LukArco (12.5)(^4)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mobil (7.5)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rosneft (7.5)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Agip (2)</td>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td>Oryx (1.75)</td>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td>BG (2)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Kazakhstan Pipeline Ventures (1.75)(^5)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TengizChevroil: Tengiz</td>
<td>1997</td>
<td>Chevron (50)</td>
<td>Oil Offshore</td>
<td>1300 mtoe</td>
<td>In production</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ExxonMobil (25)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>KazMunaiGaz (20)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lukoil (5)(^4)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TengizChevroil: Korolevskoe</td>
<td>1997</td>
<td>Chevron (50)</td>
<td>Oil Offshore</td>
<td>190 mtoe</td>
<td>In production</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ExxonMobil (25)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>KazMunaiGaz (20)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lukoil (5)(^4)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Continued on next page
<table>
<thead>
<tr>
<th>Company and field/project</th>
<th>Year(^1)</th>
<th>Partners (share)</th>
<th>Oil/gas/transport; On/off shore</th>
<th>Volume(^2)</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dostyk: Atash</td>
<td>2004</td>
<td>Lukoil (50) KazMunaiGaz (50)</td>
<td>50/50 oil/gas Offshore</td>
<td>---</td>
<td>Project closed 2008 after unsuccessful exploration</td>
</tr>
</tbody>
</table>

Continued on next page
<table>
<thead>
<tr>
<th>Company and field/project</th>
<th>Year(^1)</th>
<th>Partners (share)</th>
<th>Oil/gas/transport; On/off shore</th>
<th>Volume(^2)</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Karakudukmunai: Karakuduk</td>
<td>2005(^7)</td>
<td>2005–2006 Lukoil (100) 2006– Lukoil (50) 2006–10 Mittal (50) 2010– Sinopec (50)</td>
<td>Oil Onshore</td>
<td>68.6 mtoe</td>
<td>In production</td>
</tr>
</tbody>
</table>


\(^1\) Year when Lukoil acquired a share

\(^2\) Total volume of field. Lukoil’s share (reserve) corresponds to its share in the project and the total was calculated by the author on the basis of Lukoil’s reserves.

\(^3\) PetroKazakhstan was owned by Hurricane Hydrocarbons (from 2003 named PetroKazakhstan) until 2005, and acquired by CNPC in October 2005. CNPC was forced to sell 33% of the company to KazMunaiGaz in July 2006 and retains 67%, now controlled through PetroChina.

\(^4\) Originally LukArco. From 1997 to 2009, Arco (later BP) held 46 percent of LukArco.

\(^5\) Joint venture between KazMunaiGaz and BP.

\(^6\) KazMunaiGaz in 2011–12 obtained the 10% stake, while the other participants reduced theirs.

\(^7\) Lukoil acquired 60 percent of Chapparal Resources Inc. through Nelson Resources in 2005, then 40 percent in 2006.

\(^8\) Option with KazMunaiGaz acquired through Nelson Resources in 2005, later realised.
Table 5.5. Lukoil’s operations in Uzbekistan, 2004–

<table>
<thead>
<tr>
<th>Company and field/project</th>
<th>Year¹</th>
<th>Partners (share)</th>
<th>Oil/gas/transport On/off shore</th>
<th>Volume²</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kandym-Khauzak-Shady</td>
<td>2004</td>
<td>Lukoil 90% (operator) Uzbekneftegaz 10%</td>
<td>Gas/condensate, onshore</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kungrad</td>
<td>2004</td>
<td>Lukoil 90% (operator) Uzbekneftegaz 10%</td>
<td>Gas, onshore</td>
<td>632.9 mill barrels of oil equivalents</td>
<td>Under exploration 2010</td>
</tr>
<tr>
<td>Aral</td>
<td>2006</td>
<td>Lukoil 20% Uzbekneftegaz 20% Petronas 20% CNPC 20% KNOC 20%</td>
<td>Offshore</td>
<td></td>
<td>Under exploration 2010</td>
</tr>
<tr>
<td>Southwest Gissar³</td>
<td>2008</td>
<td>Lukoil 100%</td>
<td>Gas/oil, onshore</td>
<td>259.1 mill barrels of oil equivalent</td>
<td>Under development 2010</td>
</tr>
<tr>
<td>Central Ustyurt⁴</td>
<td>2008</td>
<td>Lukoil 100%</td>
<td>Onshore</td>
<td></td>
<td>Under exploration 2010</td>
</tr>
</tbody>
</table>

(Derived from NiK, 2008a; NGV, 2009a; Lukoil Overseas Holding Ltd., 2011, p.34-36)

¹ Year when Lukoil acquired a share
² Total volume of field. Lukoil’s share (reserve) corresponds to its share in the project/company and the total was calculated by the author on the basis of Lukoil’s reserves.
³ Acquired from Soyuzneftegaz in 2008
⁴ Part of Southwest Gissar PSA.
Table 6.1. Dividends, taxes and charity donations from Transneft, 2001–2008

<table>
<thead>
<tr>
<th>Year</th>
<th>Dividends on state-held shares</th>
<th>Taxes paid by Transneft(^2)</th>
<th>Dividends on privileged shares</th>
<th>Charity donations</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>1272.417</td>
<td></td>
<td>1396.000</td>
<td></td>
</tr>
<tr>
<td>2003</td>
<td>1300.000</td>
<td></td>
<td>1345.000</td>
<td></td>
</tr>
<tr>
<td>2004</td>
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<td>1585.000</td>
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<td>2005</td>
<td>250.210</td>
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<td>500.374</td>
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<td>2006</td>
<td>860.717</td>
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<td>2007</td>
<td>472.200</td>
<td>21.778</td>
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<td>2008</td>
<td>750.045</td>
<td>22.118</td>
<td>401.857</td>
<td>1100.000</td>
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<td>2009</td>
<td>0</td>
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<td>368.163</td>
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<td>2010</td>
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<td>29.248</td>
<td>389.325</td>
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<td>2011</td>
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<td>8518.013</td>
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</table>

Million rubles

(Derived from Dmitriev, 2002b; NiK, 2003c; Transneft, 2004; 2005, p.18; 2006, p.43; 2007, p.41; 2008, p.27; 2009b, p.41; 2011d, p.43; 2011e; Malkova, 2009)

\(^1\) Payment year. Dividends are calculated on the basis of profits for the preceding year, i.e. the dividends paid out in 2002 constitute a share of 2001 profits.

\(^2\) All taxes, to federal, regional and local budgets.
Table 6.2. Production, transport and export of crude oil and oil products in Russia, 1998–2011

<table>
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<tbody>
<tr>
<td>Production of crude oil excluding gas condensate, million tonnes</td>
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<tr>
<td>Crude oil</td>
<td>303</td>
<td>305</td>
<td>313</td>
<td>337</td>
<td>367</td>
<td>408</td>
<td>443</td>
<td>453</td>
<td>462</td>
<td>473</td>
<td>472</td>
<td>479</td>
<td>486</td>
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<td>Oil shipments by pipeline in Russia, million tonnes</td>
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<td></td>
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<tr>
<td>Crude oil</td>
<td>282</td>
<td>282</td>
<td>294.6</td>
<td>319.7</td>
<td>359.8</td>
<td>404.3</td>
<td>441.5</td>
<td>454.1</td>
<td>460.8</td>
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<td>456.4</td>
<td>474.4</td>
<td>491.7</td>
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<td>Refined products</td>
<td>20.9</td>
<td>20.9</td>
<td>23.1</td>
<td>24.9</td>
<td>25.7</td>
<td>27.6</td>
<td>27.6</td>
<td>28.2</td>
<td>28.4</td>
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<td>31.6</td>
<td>30.6</td>
<td>33.2</td>
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<td>Export, million tonnes, including transit oil from other countries</td>
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<tr>
<td>Crude oil</td>
<td>145</td>
<td>188</td>
<td>223</td>
<td>258</td>
<td>253</td>
<td>248</td>
<td>258</td>
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<td>247</td>
<td>247</td>
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<td>Refined products</td>
<td>62.7</td>
<td>75.4</td>
<td>77.7</td>
<td>82.4</td>
<td>97.1</td>
<td>104</td>
<td>111</td>
<td>118</td>
<td>124</td>
<td>133</td>
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<td>Export by export route, million tonnes</td>
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<tr>
<td>Baltic Sea: Ventspils</td>
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<td>13.6</td>
<td>15.0</td>
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<tr>
<td>Baltic Sea: Mažeikiu and Butinge</td>
<td>16.0</td>
<td>13.8</td>
<td>14.7</td>
<td>7.85</td>
<td>0</td>
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<td>Baltic Sea: Primorsk</td>
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<td>NA</td>
<td>17.7</td>
<td>44.6</td>
<td>57.4</td>
<td>66.1</td>
<td>74.2</td>
<td>73.9</td>
<td>70.2</td>
<td>71.7</td>
<td>70.1</td>
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Continued on next page
Table 6.2. continued

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<tr>
<th>Export by export route, million tonnes</th>
<th>37.4</th>
<th>47.7</th>
<th>49.1</th>
<th>48.7</th>
<th>47.2</th>
<th>44.2</th>
<th>42.6</th>
<th>33.0</th>
<th>42.0</th>
<th>43.2</th>
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<tbody>
<tr>
<td>Black Sea: Novorossiisk (Shekhsaris)</td>
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<td></td>
<td></td>
<td></td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Black Sea: Odesa terminal and Pivdennyi port</td>
<td>10.8</td>
<td>10.9</td>
<td>12.7</td>
<td>12.1</td>
<td>19.4</td>
<td>15.6</td>
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<td></td>
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<tr>
<td>Druzhba pipeline exclusive of refineries in Ukraine and Belarus</td>
<td>64.9</td>
<td>66.1</td>
<td>62.9</td>
<td>73.9</td>
<td>74.7</td>
<td>75.0</td>
<td>70.7</td>
<td>58.2</td>
<td>53.7</td>
<td>54.9</td>
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</table>

All export numbers include both near and far abroad destinations unless otherwise indicated.

(Derived from IEA, 2015; Transneft, 2006, p.31-33; 2009b, p.29; 31; Tutushkin and Reznik, 2006; Rosstat, 2008b; 2009; 2010; NGV, 2010a; 2011h; 2012c).
Table 6.3. Selected Transneft pipeline projects with terminals, Russia and abroad

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Length (km)</th>
<th>Plan</th>
<th>Construction started</th>
<th>Construction completed</th>
<th>Projected/initial throughput (tpa)</th>
<th>Expanded throughput (year) (tpa)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chechnya bypass</td>
<td>Sulak-Trudovaya</td>
<td>312</td>
<td>Dec. 1999</td>
<td>April 2000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Druzhba-Adria</td>
<td>Százhalombatta-OMisaj</td>
<td>127</td>
<td>2000</td>
<td>NA</td>
<td>NA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BPS-2</td>
<td>Ust-Luga port and Unecha-Ust-Luga port/Kirishi refinery</td>
<td>998 and 172</td>
<td>2007–9</td>
<td>June 2009</td>
<td>March 2012</td>
<td>30 mill.</td>
<td>50 mill./12 mill. to Kirishi and 38 mill. for exports</td>
</tr>
<tr>
<td>Sever (oil products)</td>
<td>Kstovo (Vtorovo)-Yaroslavl-Kirishi Primorsk</td>
<td>1067</td>
<td></td>
<td>May 2008</td>
<td></td>
<td>8.5 mill</td>
<td></td>
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<tr>
<td>YUg (diesel)</td>
<td>Syzran-Saratov-Volgograd-Novorossiisk</td>
<td>1465</td>
<td>2007–8</td>
<td>2010</td>
<td>(2013)</td>
<td>8.7 mill</td>
<td></td>
</tr>
</tbody>
</table>

Continued on next page
<table>
<thead>
<tr>
<th>Project</th>
<th>Details</th>
<th>Year</th>
<th>Completed</th>
<th>Cost (millions $)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Zapolyar’e-Purpe</strong></td>
<td>Purpe-Zapolyar’e</td>
<td>490</td>
<td>2010–11</td>
<td>(3 sections to be completed from 2014 to 2016)</td>
</tr>
<tr>
<td><strong>Skovorodino-China border</strong></td>
<td>Skovorodino-China border (Dzhalinda)</td>
<td>63</td>
<td>2009</td>
<td>April 2009</td>
</tr>
<tr>
<td><strong>VSTO-2</strong></td>
<td>Skovorodino-Blagoveshchensk-Birobidzhan-Khabarovsk-Kozmino, and expansion of VSTO-1</td>
<td>2046</td>
<td>2010</td>
<td>Sept. 2011</td>
</tr>
<tr>
<td><strong>Samsun-Ceyhan</strong></td>
<td>Samsun-Tokat-Ceyhan</td>
<td>550</td>
<td>2008–12</td>
<td></td>
</tr>
<tr>
<td><strong>Orinoco (Venezuela)</strong></td>
<td></td>
<td></td>
<td>2009</td>
<td></td>
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<tr>
<td><strong>Baku-Tikhoretsk expansion</strong></td>
<td>Baku-Tikhoretsk (pumping stations and repairs)</td>
<td>1051</td>
<td>(2012)</td>
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(Derived from Romanova, L., 2000a; Transneft, 2009a; 2009b, p.51-53; 2010, p.35-37; 2012a; 2012c; 2012d; 2012e; 2012f; 2012g; NGV, 2010e; Romanycheva, 2011; NiK, 2011j)

1 Originally planned to go terminate at Primorsk port, Ust-Luga from May 2008. Kirishi branch not realised.
2 To 2006 planned to terminate at Perevoznaya Bay.
3 Total VSTO throughput after completion of VTSO-2
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</thead>
<tbody>
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<td>Kazakhstan</td>
<td>25</td>
<td>19</td>
<td>19</td>
<td>19</td>
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<tr>
<td>Oman</td>
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<tr>
<td>Russia</td>
<td>25</td>
<td>24</td>
<td>24</td>
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<tr>
<td>Chevron</td>
<td>15</td>
<td>15</td>
<td>15</td>
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<tr>
<td>LukArco</td>
<td>12.5</td>
<td>12.5</td>
<td>12.5</td>
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<tr>
<td>Rosneft-Shell Caspian Ventures</td>
<td>7.5</td>
<td>7.5</td>
<td>7.5</td>
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<tr>
<td>ExxonMobil</td>
<td></td>
<td></td>
<td>7.5</td>
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<td>Agip</td>
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<tr>
<td>BG (British Gas)</td>
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<td>MunaiGaz</td>
<td>1.75</td>
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<td>Kazakhstan Pipeline Ventures</td>
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<td>1.75</td>
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<tr>
<td>Oryx</td>
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<td>1.75</td>
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<tr>
<td>ENI</td>
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<tr>
<td>Mobil Caspian Pipeline Company</td>
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<td>7</td>
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(Derived from NiK, 2005j; CPC, 2012)
Table 6.5. Transneft’s share of Russian crude oil transport

<table>
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<tr>
<th>Year</th>
<th>Share</th>
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<td>2004</td>
<td>93</td>
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<td>2005</td>
<td>91</td>
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<td>2006</td>
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<td>2007</td>
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<td>2008</td>
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<td>2009</td>
<td>88</td>
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<tr>
<td>2010</td>
<td>88</td>
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<tr>
<td>2011</td>
<td>88.5</td>
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<tr>
<td>2012</td>
<td>89</td>
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</table>

Excludes oil of non-Russian origin


Table 6.6. Kazakhstan’s export routes, 2011

<table>
<thead>
<tr>
<th>Route</th>
<th>Volume, mill metric tonnes (% of total)</th>
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</thead>
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<tr>
<td>Caspian pipeline (Tengiz-Novorossiisk)</td>
<td>29.9 (45.6)</td>
</tr>
<tr>
<td>Atyrau-Samara</td>
<td>15.4 (23.5)</td>
</tr>
<tr>
<td>Trans-Caspian routes (tankers to BTC and Iran)</td>
<td>9.3 (14.2)</td>
</tr>
<tr>
<td>China</td>
<td>10.9 (16.6)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>65.5</strong></td>
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</table>

(KazMunaiGaz, 2012a)
Table 7.1. Gazprom’s gas production and markets, 1995–2012

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<tbody>
<tr>
<td>Gazprom¹</td>
<td>560</td>
<td>561</td>
<td>534</td>
<td>554</td>
<td>546</td>
<td>523</td>
<td>512</td>
<td>522</td>
<td>540</td>
<td>545</td>
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<tr>
<td>Gazprom²</td>
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<td>-</td>
<td>-</td>
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<td>552.5</td>
<td>555</td>
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<td>-</td>
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<td>-</td>
<td>-</td>
<td>282.1</td>
<td>283.5</td>
<td>291</td>
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<td>-</td>
<td>-</td>
<td>-</td>
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<td>-</td>
<td>126.9</td>
<td>128.6</td>
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<td>supplied to FSU markets²,³,⁴,⁵,⁶,⁷,⁸,⁹</td>
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<td>-</td>
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<td>-</td>
<td>-</td>
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<td>39.6</td>
<td>42.3</td>
<td>42.6</td>
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<td>Total supplies</td>
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<td>454.4</td>
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<td>Russia, percent of total sales¹</td>
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<td>62.4</td>
<td>62.4</td>
<td>61.3</td>
<td>56.9</td>
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<td>28.3</td>
<td>28.5</td>
<td>28.2</td>
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<td>8.8</td>
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<tr>
<td>Far abroad, percent of total sales¹</td>
<td>28.3</td>
<td>28.3</td>
<td>28.5</td>
<td>28.2</td>
<td>28.9</td>
<td>8.8</td>
<td>9.3</td>
<td>9.1</td>
<td>10.5</td>
<td>14.2</td>
<td>10.5</td>
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<td>FSU, percent of total sales¹</td>
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<td>54.6</td>
<td>53.3</td>
<td>52.1</td>
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<tr>
<td>Billion cubic metres</td>
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<td>54.6</td>
<td>52.7</td>
<td>53.5</td>
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<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
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</thead>
<tbody>
<tr>
<td>Gazprom¹</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Gazprom²</td>
<td>556</td>
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<td>549.7</td>
<td>461.5</td>
<td>508.6</td>
<td>513.2</td>
<td>487</td>
</tr>
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<td>supplied to Russian market¹,²,³,⁴</td>
<td>316.3</td>
<td>307</td>
<td>287</td>
<td>262.6</td>
<td>262.1</td>
<td>265.3</td>
<td>249.7</td>
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<td>supplied to far abroad markets¹,²,³,⁴,⁵,⁶,⁷,⁸,⁹</td>
<td>161.5</td>
<td>168.5</td>
<td>167.6</td>
<td>148.3</td>
<td>148.1</td>
<td>156.6</td>
<td>151</td>
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<td>supplied to FSU markets²,³,⁴,⁵,⁶,⁷,⁸,⁹</td>
<td>101</td>
<td>100.9</td>
<td>96.5</td>
<td>67.7</td>
<td>70.2</td>
<td>81.7</td>
<td>66.1</td>
</tr>
<tr>
<td>Total supplies</td>
<td>578.8</td>
<td>576.4</td>
<td>551.1</td>
<td>478.6</td>
<td>480.4</td>
<td>503.6</td>
<td>466.8</td>
</tr>
<tr>
<td>Russia, percent of total sales¹</td>
<td>54.6</td>
<td>53.3</td>
<td>52.1</td>
<td>54.9</td>
<td>54.6</td>
<td>52.7</td>
<td>53.5</td>
</tr>
<tr>
<td>Far abroad, percent of total sales¹</td>
<td>27.9</td>
<td>29.2</td>
<td>30.4</td>
<td>30.9</td>
<td>30.8</td>
<td>31.1</td>
<td>32.3</td>
</tr>
<tr>
<td>FSU, percent of total sales¹</td>
<td>17.4</td>
<td>17.5</td>
<td>17.5</td>
<td>14.1</td>
<td>14.6</td>
<td>16.2</td>
<td>14.2</td>
</tr>
</tbody>
</table>
Billion cubic metres

(Derived from (1) Stern, 2005, p.28/Table 1.8; (2) Gazprom, 2013g; (3) Gazprom, 2013h; (4) Gazprom, 2013d, p.7; (5) Gazprom 2011, p.9; (6) Gazprom, 2009b, p.10; (7) Gazprom, 2007 p.5; (8) Gazprom, 2005, p.8, (9) Gazprom, 2003 p.35)

\( ^{i} \) To and including 2006, to European markets

\( ^{ii} \) Author’s calculation using the numbers above
Table 7.2. Gazprom’s gas sales to post-Soviet states, 2003–10

<table>
<thead>
<tr>
<th></th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Armenia</td>
<td>—</td>
<td>0.3</td>
<td>1.3</td>
<td>1.7</td>
<td>1.7</td>
<td>1.9</td>
<td>2.1</td>
<td>1.7</td>
<td>1.4</td>
</tr>
<tr>
<td>Azerbaijan</td>
<td>—</td>
<td>—</td>
<td>0.8</td>
<td>3.8</td>
<td>4.0</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Belarus</td>
<td>10.2</td>
<td>10.2</td>
<td>13.4</td>
<td>19.8</td>
<td>20.5</td>
<td>20.6</td>
<td>21.1</td>
<td>17.6</td>
<td>21.6</td>
</tr>
<tr>
<td>Estonia</td>
<td>0.6</td>
<td>0.9</td>
<td>0.9</td>
<td>1.3</td>
<td>0.7</td>
<td>0.9</td>
<td>0.6</td>
<td>0.8</td>
<td>0.4</td>
</tr>
<tr>
<td>Georgia</td>
<td>—</td>
<td>0.3</td>
<td>1.2</td>
<td>1.4</td>
<td>1.9</td>
<td>1.2</td>
<td>0.7</td>
<td>0.1</td>
<td>0.2</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>—</td>
<td>—</td>
<td>5.1</td>
<td>4</td>
<td>6.5</td>
<td>10</td>
<td>9.6</td>
<td>3.1</td>
<td>3.4</td>
</tr>
<tr>
<td>Latvia</td>
<td>1.1</td>
<td>1.2</td>
<td>1.5</td>
<td>1.4</td>
<td>1.4</td>
<td>1</td>
<td>0.7</td>
<td>1.1</td>
<td>0.7</td>
</tr>
<tr>
<td>Lithuania</td>
<td>2.4</td>
<td>2.9</td>
<td>2.9</td>
<td>2.8</td>
<td>2.8</td>
<td>3.4</td>
<td>2.8</td>
<td>2.5</td>
<td>2.8</td>
</tr>
<tr>
<td>Moldova</td>
<td>2.1</td>
<td>2.3</td>
<td>2.7</td>
<td>2.8</td>
<td>2.5</td>
<td>2.7</td>
<td>2.7</td>
<td>3</td>
<td>3.2</td>
</tr>
<tr>
<td>Of which right-bank Moldova</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>1.4</td>
<td>NA</td>
<td>1.3</td>
<td>1.2</td>
<td>1.1</td>
<td>1.2</td>
</tr>
<tr>
<td>Ukraine</td>
<td>25.9</td>
<td>26</td>
<td>34.3</td>
<td>37.6</td>
<td>59</td>
<td>54.8</td>
<td>56.2</td>
<td>37.8</td>
<td>36.5</td>
</tr>
<tr>
<td>Total</td>
<td>42.3</td>
<td>44.1</td>
<td>65.7</td>
<td>76.6</td>
<td>101</td>
<td>96.5</td>
<td>96.5</td>
<td>67.7</td>
<td>70.2</td>
</tr>
</tbody>
</table>

(Billion cubic metres.

(Derived from Gazprom, 2003b, for 2002; Gazprom, 2013b, for 2003–10; Moldovagaz, 2013a; 2013c, for right-bank Moldova)
### Table 7.3. Itera’s sales to post-Soviet states, 2001–3

<table>
<thead>
<tr>
<th>Country</th>
<th>2001</th>
<th>2002</th>
<th>2003 (plan)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Armenia</td>
<td>1.4</td>
<td>1.2</td>
<td>1.2</td>
</tr>
<tr>
<td>Azerbaijan</td>
<td>3.1</td>
<td>4.0</td>
<td>5.5</td>
</tr>
<tr>
<td>Belarus</td>
<td>5.1</td>
<td>6.2</td>
<td>not given</td>
</tr>
<tr>
<td>Estonia</td>
<td>0.2</td>
<td>0.12</td>
<td>—</td>
</tr>
<tr>
<td>Georgia</td>
<td>1.0</td>
<td>1.06</td>
<td>1.1</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>2.9</td>
<td>1.2</td>
<td>—</td>
</tr>
<tr>
<td>Latvia</td>
<td>0.4</td>
<td>0.4</td>
<td>—</td>
</tr>
<tr>
<td>Lithuania</td>
<td>0.5</td>
<td>0.38</td>
<td>—</td>
</tr>
<tr>
<td>Moldova</td>
<td>0.6</td>
<td>0.3</td>
<td>—</td>
</tr>
<tr>
<td>Ukraine</td>
<td>34.8</td>
<td>32.66</td>
<td>not given</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>50.0</td>
<td>47.6</td>
<td>15.2</td>
</tr>
</tbody>
</table>

Billion cubic metres.

(NiK, 2003e, based on data from Itera)

### Table 7.4. Gazprom’s upstream projects in Central Asia, 2013

<table>
<thead>
<tr>
<th>Country</th>
<th>Project</th>
<th>Reserves</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Gas, bcm</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>Imashevskee</td>
<td>129</td>
</tr>
<tr>
<td>Kyrgyzstan</td>
<td>East Mailisu IV, Kugart</td>
<td>2.1</td>
</tr>
<tr>
<td>Tajikistan</td>
<td>Sarykamysh</td>
<td>60</td>
</tr>
<tr>
<td>Uzbekistan</td>
<td>Gissarneftegaz</td>
<td>180</td>
</tr>
<tr>
<td></td>
<td>Kokdumalak-Gaz</td>
<td>130</td>
</tr>
<tr>
<td></td>
<td>Shakhpakhty</td>
<td>2.6</td>
</tr>
<tr>
<td></td>
<td>Ustyurt</td>
<td>10</td>
</tr>
</tbody>
</table>

(NiK, 2013c)
Table 7.5. Gazprom’s share of Russian tax collection, 2006–11

<table>
<thead>
<tr>
<th>Year</th>
<th>Gazprom consolidated tax payment, billion rubles</th>
<th>RF aggregated tax collection, all levels, regardless of tax calculation year, billion rubles(^1)</th>
<th>Gazprom share of RF tax collection, percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>494.5</td>
<td>5426.9</td>
<td>9.1</td>
</tr>
<tr>
<td>2007</td>
<td>505.2</td>
<td>6950.9</td>
<td>7.3</td>
</tr>
<tr>
<td>2008</td>
<td>685.8</td>
<td>7944.2</td>
<td>8.6</td>
</tr>
<tr>
<td>2009</td>
<td>523.2</td>
<td>6283.9</td>
<td>8.3</td>
</tr>
<tr>
<td>2010</td>
<td>731.3</td>
<td>7659.5</td>
<td>9.5</td>
</tr>
<tr>
<td>2011</td>
<td>967.2</td>
<td>9715.2</td>
<td>9.95</td>
</tr>
</tbody>
</table>

(Derived from Federal Tax Service, 2007; 2008; 2009; 2010; 2011; 2012; Gazprom, 2013c)

\(^1\) Sum of cells E15 (Postupilo nalogov, sborov, inykh ob"yazatel’nykh platezhei v dokhody: Federal’nogo byudzheta/Nalogovye dokhody) and F15 (Postupilo nalogov, sborov, inykh ob’yazatel’nykh platezhei v dokhody: Konsolidirovannogo byudzheta sub’ekta Rossiiskoi Federatsii/Nalogovye dokhody).
APPENDIX 2: NOTE ON SOURCES

The source situation for each case

Gazprom is the best covered company in existing research. It is often included in scholarly analyses of the Russian state, the Russian economy and Russia’s energy sector, and has frequently been analysed in the context of Russian foreign policy. The Eurasian gas sector is a research topic of its own and analyses of it invariably include Gazprom. There is a wealth of information available on Gazprom in trade journals and financial news media, in Russia and outside. The company’s own website also offers extensive information, especially from the 2000s, and it is well organised.

There is generally good access to sources on Lukoil. In particular, the Russian and international trade journals that report on the Russian oil and gas sectors provided a good understanding of Lukoil’s position in the sector. A wide variety of background sources on the oil industry exists along with scholarly and industry analyses. They were complemented by searches in Russian newspapers, company reports and other information made available by the company. Scholarly research on the Russian oil industry, and Lukoil, is often included in works on politics in contemporary Russia.

There is no lack of journalistic coverage of RAO UES between 1998 and 2008, often including Inter RAO’s foreign operations. Information on reform progress was also made available to the public by the company. Much information from RAO UES is still available on its preserved website (http://www.rao-ees.ru/). In contrast, for the first half of the 1990s there is little detail on RAO UES in news reports. As regards scholarly analysis, there is little on RAO UES in the 1990s, but scholars analysed the reform in the 2000s. To some
extent, this compensated for the lack of an independent Russian trade journal. However, there is very little analysis of foreign electricity operations by scholars, with a couple of significant exceptions (Sabonis-Helf, 2007b; 2007a; Sherr, 2013).

A limited number of Russian newspapers, trade journals and journalists report on and analyse the Russian nuclear sector. Compared to the other cases in this thesis, Rosatom and the nuclear energy industry interest only a narrow public. The Russian industry’s integrated structure and complete state control leave little room for external, let alone independent, reporting. Trade journals are in-house journals. This means that within each type of source, there are fewer outlets, with fewer writers, than for the other cases. Moreover, the structure of the international nuclear energy industry, with only a few major competitors to Rosatom, means there are fewer openly available international trade journals that could provide alternative information. There is also less well-researched coverage of the industry in mainstream international media. The international non-proliferation regime on nuclear and fissile material encourages transparency and openness, but it does not apply to commercial data like prices or profits.

Of all the cases in this thesis, Transneft was the least researched and analysed from the outset, both in Russia and internationally. It was also the least accessible company. Little information was made available to a wider public, although this improved in the latter part of the period under study. This dearth of most source types was somewhat remedied by the Russian trade journals for the oil and gas industries, which, to some extent, report on Transneft.
Interview experiences

In the course of the investigation, I conducted 16 interviews involving 17 interviewees in two rounds of fieldwork in Moscow (February 2009 and September 2012). Eight interviews were with scholars or analysts, and eight with representatives of the companies studied here. The ratio of failure to success among contacts pursued was approximately 50/50 for the first round of fieldwork and 60/40 for the second.

There was a limited time period available for each round of fieldwork, making it essential to prioritise potential candidates for interviews. Potential interviewees were approached at business and scholarly conferences, through contacts, snowballing, and by phone or email. Representatives of state organisations were more difficult to reach, less approachable at business conferences, and were generally unavailable while I was in Moscow. Company representatives were also somewhat difficult to reach, and in the case of Transneft, and partially Inter RAO, occasionally outright hostile in their (negative) responses. Others were more likely to regard an interview as an exercise in public relations. This could be a complication during interviews.

Interviews were all conducted without tape recording aids, but with note-taking during the interview. This was based on a judgment that tape recording would lead interviewees to be less forthcoming in their answers. It was seen as essential to build up trust with interviewees and not to raise any fears of their being ‘on the record’ for the future when political contexts might change. Note-taking may have disturbed the interview process somewhat, but it was also expected by the interviewees. Notes were written in longhand with details added as soon as possible after the interview, always on the same day.
Russia is a high-context society (Clark and Michailova, 2004, p.9) and it can be difficult for a foreigner and outsider to conduct research on many topics. However, being Norwegian probably helped, as this provided positive associations (small neighbouring country, oil and gas producing country) to many interviewees. They assumed that a Norwegian would be familiar with the political significance of the oil and gas industries.

As an outsider I tried to be alert to topics that might be sensitive to interviewees, knowing that I might not realise the extent to which my questions could present a real threat to interviewees (Renzetti and Lee, 1993, quoted in Borochowitz, 2005, p.355). Another consideration was to avoid raising groundless suspicions of political bias or even hidden agendas due to my employment in the Norwegian defence sector. Contentious and critical questions were left for the middle and later stages of an interview. Occasionally I placed contentious or politicised issues in a frame of naivety or referred to common ground as a representative of an oil and gas producing country. Naivety is a risky interview strategy and it is not a planned one, but it generates trust and yields results. It comes naturally to an outsider who is, of course, uninformed on, or not sensitive to, some of the issues brought up during interviews. Being a woman helps, as naivety in many cases just confirmed interviewees’ expectations.
All interviews were conducted in Moscow. Affiliations at the time of the interview.
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