Refining Sovereignty: 
A Mixed-Methods Analysis of Post-Soviet Energy Diplomacy, 2000-2011

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by 
Connor Wahrman
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TABLE OF CONTENTS

CHAPTER 1: INTRODUCTION ........................................................................................................................................... 1
CHAPTER 2: LITERATURE REVIEW .................................................................................................................................. 9
CHAPTER 3: BELARUS AND KAZAKHSTAN .................................................................................................................. 31
CHAPTER 4: LATVIA AND LITHUANIA .......................................................................................................................... 56
CHAPTER 5: GAZPROM EXPORT PRICES .......................................................................................................................... 78
CHAPTER 6: CONCLUSION .............................................................................................................................................. 96
APPENDIX ........................................................................................................................................................................ 102
BIBLIOGRAPHY ............................................................................................................................................................... 105

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“Truth may be stretched, but can never be broken, and always gets above falsehood, as does oil above water” – Miguel de Cervantes
Chapter 1: Introduction

On December 5, 1991, the dissolution of the Soviet Union created fifteen newly-independent sovereign states. The Russian Federation, no longer able to directly manage the political and economic policies of Eastern Europe, the Baltic States, the Caucasus, and Central Asia, had to develop new institutions and strategies for negotiating matters of common interest. One salient issue for the new post-Soviet region was the control and use of energy-related infrastructure. A network of petroleum and natural gas fields, refineries, and pipelines, once run entirely from Moscow, now fell under the jurisdiction of sovereign states competing for domestic energy supply and transit revenues. These states had the potential to disrupt not only the flow of Russian hydrocarbon exports to Europe, but also the supply of energy for domestic Russian consumption. Securing these vital economic interests, then, has been a priority in Russian foreign policy towards other post-Soviet states.

Russian energy diplomacy today is the result of significant changes under the first administration of President Vladimir Putin. Putin, elected in 2000, sought to reverse the 1990s trend of privatization within the energy sector and direct profits from high hydrocarbon export prices toward broader economic development. With the reorganization of state monopolies in natural gas, petroleum, and pipeline transit, Putin attempted to use state-run institutions to bring Russia the prosperity that Western free market capitalism had not during the 1990s. Achieving this goal required expectations of a stable supply chain, so other post-Soviet countries connected to Russian energy infrastructure became potential threats. To manage the threat of other states disrupting Russian energy transit, Putin’s government has overseen the construction of new port facilities and pipelines, such as Nord Stream through the Baltic Sea to Germany and the
abandoned South Stream through the Black Sea to Bulgaria. Through these projects and others, Russia has restructured Eurasian energy transit to provide export security.

Figure 1: Map of Eurasian Energy Infrastructure, 2013

Source: Matt Mushalik, Crude Oil Peak

At the same time, Russia began changing its energy relationships with post-Soviet countries, renegotiating export prices and seeking cross-border investments in oil and gas fields, refineries, and transit. The results of this energy diplomacy varied across time and space, with some negotiations resulting in conflict and others in cooperation. The main indicator for energy-
related conflict is pipeline shutoffs, with one or both sides of the bilateral relationship refusing to continue the transit of hydrocarbon products. From cutting off the Baltic energy supply to alter the terms of Estonia, Latvia, and Lithuania’s independence in 1991 to halting transit through Ukraine during their 2014 gas dispute, pipeline shutoffs are a relatively common tool of Russian energy diplomacy indicating conflict. An indicator for cooperative energy diplomacy outcomes, besides the lack of conflict, is voluntary joint national control of foreign energy infrastructure, such as with Lithuanian firms over transit in the early 2000s and Kazakh firms over extraction in 2005. This thesis analyzes the causes behind this variation, to better explain Russian energy diplomacy between 2000 and 2011.

Figure 2: Russian Natural Gas Export Price Discrimination

Source: Matt Mushalik, Crude Oil Peak
Understanding Russian action under and directly following the first Putin administration is important for engaging with many of today’s political realities. Most tangibly, energy transit plays a prominent role in the ongoing conflict in Ukraine, and redistributing ownership of energy infrastructure within the country may be essential for the eventual resolution of the conflict. Next, conflict and cooperation over energy supply has direct effects on energy security in the European Union and China; often, European security analysts interpret Russian actions as designed to threaten the EU even if the primary target may be a post-Soviet state. Moreover, emphasizing the economic foundations of Russian foreign policy sheds light on the broader intentions of Putin’s Russia. If the material interests of domestic economic development are the primary determinant of Russian foreign energy policy, then Western policymakers can adjust their policies towards Russia to meet this reality.

In addition to the practical implications of Russian energy diplomacy, this thesis also furthers academic discussion of various analytical concepts within the study of international relations. Most significantly, the following chapters explore the application of the hold-up problem, an economic concept explaining risk management between firms reliant on one another for generating profits, to the behavior of sovereign states. This concept bridges a gap in the debate between geopolitical and contractual explanations of conflict over natural resources, a conversation which Chapter 2 will develop. Besides the hold-up problem, this paper draws upon scholarship on international supply chains to illustrate the effects of rules surrounding cross-border investment on conflict and cooperation. By showing how variation in national and international economic arrangements influence conflict and cooperation, this project provides support for arguments within international relations theory that emphasize the importance of institutions in moderating political outcomes. Finally, this study contributes to the understanding
of Eurasian regionalism, showing how the confluence of economic interests regarding the function of specific assets contributes to coordination of region-building projects like integrated pipeline networks.

In the following chapters, I will argue that variation in conflict and cooperation for bilateral relations in post-Soviet Russian energy diplomacy between 2000 and 2011 is the result of both structural and institutional factors. At the structural level, when the position of a neighboring state along the hydrocarbon supply chain threatens to ‘hold up’ the transit security of Russian energy exports, Russia responds by attempting to obtain control of energy infrastructure within that state. The incidence of conflict is more likely, then, when countries pose an immediate threat to Russian transit. At the institutional level, the presence of various economic arrangements moderates how Russia resolves disputes surrounding asset ownership. The arrangements include openness to foreign investment, privatized and socialized energy sectors, and personalized corruption networks. The incidence of cooperation, then, is more likely when these moderating institutions are present in the bilateral relationship. As values for the structural and institutional factors can vary both across and within country-cases, it is possible for states to engage in both conflict and cooperation with Russia during the period of study.

The following chapters explore this argument in depth, providing theoretical background and both qualitative and quantitative evidence. Chapter 2 reviews the literature on Russian energy diplomacy, drawing from various strands of IR theory to develop a causal model for energy-related conflict and cooperation. First, the chapter addresses scholarship on geopolitics, the study of how natural resource endowments shape foreign policy, and determines that this literature’s focus on static, structural forces leads to an incomplete analysis of Russian energy diplomacy. By looking at regional dynamics, including networked energy infrastructure and the
policy decisions of other former Soviet states, the chapter develops a more nuanced geopolitical framework accounting for the region’s post-imperial setting. Next, I review the literature on relational contracting, which analyzes international arrangements as informal contracts distributing control and use rights for specific assets. This alternate framework focuses on the role of assets themselves in shaping foreign policy positions between states, and how countries develop credible commitments to maintain the distribution of sovereignty rights. The chapter concludes by blending structural forces from geopolitics and institutional arrangements from relational contracting to establish a testable causal model.

In Chapter 3, I begin to test this model through comparative case-study analysis of Russian relations with Belarus and Kazakhstan. The chapter traces the process of negotiations with Belarus over the ownership of that country’s energy monopoly, Beltransgaz, and with Kazakhstan over the development of the Caspian Pipeline Consortium and various excavation sites for oil and gas. Through comparison of these cases, I distinguish between types of threats to Russian energy transit based on country position along the hydrocarbon supply chain, as well as between socialized and liberalized institutional arrangements of national energy sectors. Drawing correlations between these values for the causal variables and the incidence of conflict in bilateral relations with Belarus and Kazakhstan, I associate direct threats to Russian use rights and state asset ownership with conflict, and indirect threats to use rights and private asset ownership with cooperation. Although the chapter’s cases do not capture the full potential for variation of the independent variables, they do provide evidence supporting the causal model.

To strengthen the qualitative evidence in favor of the causal model, Chapter 4 turns to cases of conflict and cooperation in the Baltic States of Latvia and Lithuania. By tracing the process behind Russia’s long-term disruption of energy supplies to Latvia beginning in 2003
over ownership of Latvijas Gaze, this analysis fills in a conceptual gap from the previous chapter, and establishes further variation in the response variable regarding the intensity of pipeline conflict. Then, analysis of bilateral relations with Lithuania reveals how institutional change over time, the result of EU-induced privatization, as well as the structural hold-up, shifted the outcome of negotiations with Russia from cooperation to intense conflict between 2004 and 2006 over the ownership of Mazeikiu Nafta. Comparing these two country-cases, then, shows how the structural and institutional variables have distinct, but overlapping effects on conflict and cooperation in post-Soviet energy diplomacy. The chapter concludes by summarizing the results of this paper’s qualitative analysis and highlighting means to provide further evidence in favor of the causal model.

Finally, Chapter 5 uses cross-sectional time series analysis of Gazprom export prices to post-Soviet states to quantitatively assess the model’s main contentions. Using pricing data from 2000 to 2008 for fourteen countries, this chapter tests the causal relationships for variables representing each side of the bilateral hold-up situation, as well as various institutional arrangements including economic liberalization, regional integration, democratization, and overall state capacity on variation in Gazprom pricing by country. In analyzing the results of the regression analysis, the chapter finds strong evidence supporting a relationship between the hold-up position of downstream countries and increased export prices, as well as both liberalized economies and participation in Eurasian institutions with decreased prices. Interpreting these statistically significant relationships lends strong support to the causal model, and opens up further areas for both qualitative and quantitative investigation. This final chapter concludes with an overall assessment of this paper’s argumentation and analysis, and suggests next steps for the causal model’s application within international relations discourse.
Overall, this thesis has significant implications for collective understanding of Russian energy diplomacy in the Putin era. Its causal model, a product of two competing frameworks in international relations theory, provides a concise and compelling account of conflict and cooperation in the post-Soviet space. Moreover, this paper’s argumentation derives primarily from the claim that the goal of Russian foreign economic policy is not to dominate former subject states, but instead to generate domestic growth and prosperity. Conceptualizing Putin’s motivations here as material, rather than ideological or revanchist, clarifies Russia’s international ambitions and offers the potential for greater cooperation over energy security. As the European Union faces the possibility of confronting Russia over hydrocarbon supply without U.S. support, and China strengthens its position as a key player in Eurasian energy politics, the analysis here can provide guidance for both as they navigate relationships within the post-Soviet region.
Chapter 2: Literature Review

Introduction

In broadest terms, this project is about geopolitics, the study of how geographic factors influence states within the international system. Going back to Mahan’s 1890 sea power thesis and Mackinder’s 1904 Heartland Theory, geopolitics sees ownership of certain land regions and sea zones as critical for states aspiring to regional or global hegemony, as well as for those determined to stand in their way. While geopolitical theories offer a simple explanation for international relations, that states competing for security within an anarchic system are first and foremost concerned with natural resource endowments, they ignore the significant impact human activity has on the value of these resources. And these changes go beyond technological innovation giving certain resources, such as the hydrocarbon reserves discussed in this thesis, higher significance for economic growth and national security. More importantly, strict geopolitics does not account for the effect of economic and political institutions, such national monopolies and common markets, put in place to moderate access to natural resources. At any one moment, states within the international system construct institutions to match geographic endowments with security needs. But as the international system changes, and geographic factors lose or gain importance, institutions may not easily adapt to new structural conditions.

The following sections explore this problem conceptually, focusing on the relationship between hydrocarbon resources and international relations within the former Soviet Union. To explain the outcomes of conflict, seen in pipeline shutoffs and sudden increases of transit prices, and cooperation, such as joint development of new transit routes and continued subsidization of energy prices, this chapter will explore various approaches to understanding Russia’s domestic
and international priorities. After first establishing that Russia’s internal capabilities and priorities, such as regime ‘kleptocracy’ and Eurasian integration, cannot by themselves explain conflict and cooperation over energy resources, the chapter will adopt a more regional approach. By looking at how factors including Soviet-era energy networks and the individual foreign policies of neighbor-states shape Russian energy policy, the first section concludes by offering a tentative, general explanation of post-Soviet energy diplomacy. The second section begins by locating this explanation within theoretical discussions of hierarchy and relational authority in post-imperial settings. After digesting this theoretical framework, the discussion turns away from state-level analysis to explore these concepts at the asset level, analyzing variation in supply chain function and corporate ownership. By investigating how the targets of state action themselves shape international policy, this section identifies potential causal mechanisms for this paper’s causal model. This chapter concludes by establishing two such mechanisms, credible commitments and the hold-up problem, as the logic behind the structural and institutional variables explored in depth throughout the rest of this project.

**Russia and the Post-Soviet Region**

A common approach to Russian energy diplomacy after 2000 emphasizes the significance of petroleum transit as both a motivation and tool of the Putin administration’s foreign policy. This section first explores potential rationales for Russian interest in hydrocarbon transit, namely state-led economic growth, ‘kleptocratic’ tendencies, and Eurasianist goals and reviews the country’s capabilities for coercive action in the energy sector. In analyzing these competing explanations of internal sources for Russian foreign policy, this section determines that each miss important dynamics of Russia’s relationships with individual neighbor-states.
Next, this section addresses regional dynamics at play in studying Russian energy policy, including dependence on European exports, competition with Eurasian regional actors, and bilateral relationships with neighbor-states. These regional dynamics provide necessary context for developing a consistent account of post-Soviet Russian energy diplomacy.

**Russian Priorities and Tools**

When Russia first elected Vladimir Putin to the presidency in 2000, the country highly depended on oil and gas for economic growth and government revenues. In 2000, the hydrocarbon industry accounted for 50 percent of Russian trade and 24.3 of the country’s GDP, while Gazprom alone provided 25 percent of federal tax receipts that year. Given this Russian dependence on natural resource extraction and transit, analysts in the early 2000s expected a multifaceted strategy of rationalization and diversification to maximize returns from a period of high energy prices. Scholars predicted that Putin sought in the short term to rationalize the Russian energy sector for secure access to European markets, and in the long term to channel energy profits towards diversifying the Russian economy for continued growth if hydrocarbon prices were to slump. While oil and gas revenues presented the potential for the Russian government to provide effective services and invest in the country’s future, they present a policymaking dilemma, as long-term development must always come at the expense of potentially satisfying short-term constituent demands. If policymakers cannot accurately predict when periods of high energy revenues will end, they may squander all potential for long-term solvency on short-term benefits.

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1 Tabata 2002, 610-15
2 Adams 2002, 14
3 Ibid, 19
Given this dilemma, a demonstrated preference for either short-term gains or long-term development may explain Russian energy policy in the post-Soviet region. According to some scholars, while Putin may have had development-oriented goals, elite opportunism within the regime redirected national control of economic sectors towards self-enrichment instead of general welfare. This theory of ‘kleptocracy’ sees Russian business oligarchs using international institutions and abusing domestic positions of power to channel natural resource profits towards their own personal enrichment. Rather than seeing these redistributions of energy revenues as a trade-off between long and short-term goals, however, the kleptocracy theory argues that the business oligarchs have a system of economic administration unto themselves, bypassing and challenging Putin’s state-oriented policies. All foreign developments in Russian energy policy, according to this account, are byproducts of these domestic tensions.

It is important to note, however, that these two accounts of Russian governance do not have to be mutually exclusive. Despite Putin’s struggle with the oligarchs, most notably with Mikhail Khodorkovsky and his exploration and production company Yukos, over control of domestic energy assets, the link between kleptocracy and Russian foreign policy is unclear. Russian sources of energy leverage cited in Dawisha’s 2011 account of Russian ‘kleptocratic corporatism,’ including intermediary companies and debt-equity swaps, rested under the purview of Putin and his allies in Gazprom. While individuals affiliated with Gazprom may have accrued personal benefit from particular policies of Putin’s energy diplomacy, it is unreasonable to assume that they had undue leverage in the foreign policy-making process. It remains possible, though, that Putin leveraged corruption and personal economic interests as tools to advance Russian interests abroad. Besides these personalized corruption networks, the kleptocracy

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4 Dawisha 2011, 335
5 Ibid, 353
argument provides no means to explain variation in conflict and cooperation across different post-Soviet states, especially as Putin clamped down on rival powerbrokers, including Khodorkovsky, during the period of study.

Another theme of later accounts for Putin’s foreign policy is ‘Eurasianism’ or the claimed historic mission to establish a center of power and model of governance rival to that of the West. Eurasianist ideology justifies confrontation between Russia and the West, as well as Russian influence over the post-Soviet region. Given that Putin has actively rebuffed the idea of ‘restoring’ Russia’s imperial holdings, a possible Eurasianist interpretation of Russian foreign policy relies on deepening international ties within the Commonwealth of Independent States. The less Putin claims to lead regional integration efforts, the more successful he may be at maximizing the economic incentives of the Eurasian Economic Union, for example. A desire to further trends towards regional integration with its neighbors, however, does not explain Russian policy towards specific actors, nor does it predict Russian action when those neighbors decide not to cooperate. In the absence of direct evidence for the Eurasianist hypothesis, it remains more likely that practical considerations, rather than expansionist ideology, shape the decision-making processes behind Russian foreign policy during the period of study.

Instead of relying on these internal sources of foreign policy, another way to approach Russian motivations is to examine the country’s use of specific foreign policy tools related to the energy sector. These accounts of Russian energy diplomacy focus on differentiating between these tools, which mainly include the coercive bargaining tactics of pipeline shutoffs and sudden price increases. But even here, studying the main energy tools of transit interruption and coercive bargaining does not offer any clear explanation for their use. According to some policy analysts,

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6 Smith 2016, 172
Russian energy coercion is improvised as security dependencies change. These accounts claim that there is no coherent timing to Russian action, and that the country’s energy policy is almost entirely responsive to changes in the global energy market. Other analysts conclude that while Russian energy diplomacy has the strategic objective of maintaining the country’s influence within the CIS area, it has largely failed to meet this goal. While these analyses correctly point to Soviet-era dependencies and corruption playing a large role in the development of Russia’s relationships with its neighbor-states, they ignore the possibility that domestic imperatives, rather than foreign ambitions, determined the country’s energy policy. Conflict and cooperation between Russia and its neighbors is certainly a result of Putin’s energy policy, but it does not have to be the desired, or even intended, result in order for the policy to achieve its objectives. Instead, the simpler explanation is that Russia maintained during the period of study the primary goal of maximizing transit revenues and securing access to export markets, and tailored its country-specific policies to the conditions of each bilateral relationship. Exploring what these conditions may be is the focus of the next sub-section.

Regional Dynamics

It is clear, then, that static Russian goals do not explain the country’s interactions with its post-Soviet neighbor-states over energy concerns. To see how Russia’s external environment shapes its foreign policy strategies, scholars have turned to a variety of analytical frameworks. One popular frame, the ‘New Great Game,’ focuses on Russian competition with other regional and global powers interested in harnessing the natural resource potential of Central Asia. While the original ‘Great Game’ saw Russia competing with Britain over commercial and military

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7 Henderson 2015, 76
8 Hedenskog et al. 2007, 10
influence in the region throughout the 19th century, according to this framework Russia competes over the location and ownership of pipeline routes not only with the conventional ‘great powers,’ the United States and China, but also secondary powers such as Iran, India, Pakistan, and Turkey. The benefit of this form of analysis is that it shows the importance of private enterprise in state-based competition. For the interested countries, direct sovereignty over territory is not the prime focus; rather, the powers seek out public-private partnerships that ensure vital infrastructure does not fall into rival hands alone. This insight, that private institutions can moderate conflict between states over energy security, gains a prominent role in this paper.

But the ‘New Great Game’ approach has severe limitations. Mainly, the framework assumes the ‘target’ states themselves are passive actors, simply responding and adjusting to the moves of their more powerful neighbors. As the next chapter will show, countries like Belarus and Kazakhstan have wielded their positions on the energy supply chain to their advantage, forcing other regional powers, such as Russia and the EU, to readjust their policies. These intermediary countries have specific sources of leverage over both Russia and the EU; therefore, analyzing the agency of these countries in carrying out their own energy diplomacy is important for a thorough understanding of regional dynamics. While it is important to recognize the multilayered nature of regional energy diplomacy, with a variety of states trying to exert their own influence and check the ambitions of others through direct and indirect means, treating weaker states as mere pawns in the hands of the powerful ignores other important dynamics.

Some scholars have tried to rationalize focusing solely on Russian relations with large powers by emphasizing the market demands of energy transit. These authors draw from the literature of “splintering urbanism,” which argues that the construction of transportation infrastructure between concentrations of wealth allows actors to maximize economic activity by

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9 Fatima 2014, 643
bypassing low-value territory. For Russia, this means that a profit-maximizing energy export sector would naturally seek to develop close infrastructural and institutional ties with the significant import markets of Western Europe, bypassing Eastern European transit states. Energy-related conflict arises not only when Russia attempts to switch away from dependence on low-value transit states towards direct routes, but also once the country is able to divert supply to its neighbors without putting high-value supply chains at risk. While this account helps understand the Russian desire during the period of study to construct such high-value projects as Nord Stream and South Stream bypassing transit states on the Baltic and Black Seas, respectively, it does not explain Russian recalcitrance towards such projects as the Caspian Pipeline Consortium, which would have secured energy transit through Russia and Central Asia.

Additionally, this approach ignores the possibility that the optimal Russian policy may not be to engage in expensive transit investments, but instead to solidify control of existing infrastructure. A desire to simplify energy transit between Russian supply and European demand may be a part of Moscow’s energy policy, but it is important to remember that this goal necessarily imperils bilateral relations between the country and its neighbors. To maintain these relations, and possibly encourage its neighbors to strengthen economic ties through the CIS Free Trade Area and Eurasian Economic Community, Russia would have to adjust its priorities to not alienate these potential partners. Any move to ‘cut off’ states from the energy supply chain may not be a primary Russian goal, but a second-best option once those states prove unwilling or unable to advance Moscow’s interests. Russia could be altering energy infrastructure to encourage membership in regional institutions, playing transit states off one another in vying for Russian exports, but it could also be extracting concessions from those with little chance of

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10 Johnson 2012
improving their bilateral relationships with Russia. Looking at the foreign policy orientations of specific post-Soviet states, then, may reveal patterns explaining differentiated Russian policy.

Another approach, the “porous periphery” theory, focuses on Russia’s neighbor-state directly. This approach argues that countries reluctant to deepen their post-Soviet ties are not escaping Russian influence, but instead are attempting to maximize their positions between Russia and other centers of economic and political power. This theory holds that countries balancing Russian and European interests, such as Georgia, Ukraine, and Moldova, attempt to secure favorable trade deals and terms of foreign investment by playing Russian and EU ambitions off of one another; at the same time, states like Azerbaijan, Turkmenistan, and Uzbekistan have taken similar approaches towards Russia and China. Because these countries can claim membership in multiple spheres of influence, their peripheral status is unstable, or ‘porous.’ The relative success of these peripheral states depends on balancing the potential gains from cooperation with one regional power against the corresponding risk of angering the other. Differentiated Russian energy policy, then, might be a response to change over time in the direction of regional partnerships peripheral states pursue.

The problem with applying the ‘porous periphery’ theory here, however, is that peripheries can only be porous for so long in the energy sector. If a country develops a reputation for playing Russian and its rivals’ interests off of one another, that increases incentives for all sides to bypass the state in favor of a more stable, and therefore predictable, arrangement. At the end of the day, countries in the region have to decide whether Russia will be their regional partner, and policymakers in Moscow know this. Russian energy diplomacy, then, is not just a reaction to contemporary developments – it is also forward-looking. Pushing countries out of a ‘porous’ position, even if they end up in a non-Russian camp, may then be a favorable alternative

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1 Samokhvalov 2016, 83
to not being able to anticipate their positions when forced to choose sides in a larger energy conflict. With this in mind, the Putin administration may perceive the actions of countries seeking a ‘porous periphery’ as indications that they will not remain loyal to Russia when times get tough, and will treat them as if they are already lost to Western or Chinese interests.

The literature does address one way to mitigate this problem with a focus not only on geopolitical approaches to region-building, but also on ‘inside-out’ demands for institutional change. These scholars recognize that, since domestic factions shape state preferences, bargaining occurs both across and within states.\footnote{Delcour 2015, 318} This approach takes into account the possibility that there may always be a faction, interest group, or power player influencing the government of a post-Soviet state that desires close cooperation with Russia, even if the state’s current foreign policy orientation of that state is focused on developing European or Chinese ties. So long as these connections remain viable within the domestic politics of the states in question, Putin can rest assured that they will not back away from their arrangements with Russia, minimizing conflict. On the other hand, if these connections disappear, or risk becoming irrelevant to policymaking, Moscow may try to develop new pro-Russian connections or shift away from interdependence. Either way, this account of Russian energy diplomacy emphasizes that domestic institutions play an important role in determining conflict and cooperation.

Synthesizing these approaches to Russian foreign policy in the energy sector reveals two broad themes. First, geopolitical considerations are by themselves insufficient to explain Russian policy, as both domestic and external factors complicate incentives for action. While the need for ‘energy security’ and desire for strengthened Eurasian institutions remains constant, these priorities are often at odds and don’t predict policies specific to individual states. And second, the geopolitical framework assumes that states are the primary unit of analysis, focusing on the
intergovernmental organizations they join and the policymaking procedures and agencies they employ. This focus, however, ignores institutions at the asset level, including corporate ownership structures and personalized corruption networks, which encourage trust between Russia and its post-Soviet neighbors and have the capacity to alter state-level incentive structures. Based on the discussions so far, it is clear that both structural and institutional variables have discrete impacts on Russian energy diplomacy. The next section of this chapter will explore an alternative theoretical framework that blends political conceptions of sovereignty with the economic concept of relational contracting to accommodate both the structural forces of geopolitics and asset-level institutional arrangements.

**Theoretical Framework**

While the first half of this chapter focused on attempts in the literature to explain Russian energy diplomacy from a geostrategic lens, this next section will advance an alternative conceptual basis for understanding Russian energy diplomacy. Rather than having states competing over resources as the sole unit of analysis, it is possible that relational dynamics deriving from the asset-level have explanatory power. What does this mean? Instead of focusing on energy infrastructure as merely the targets or tools of foreign policy, characteristics of these assets may themselves have an impact on policy formation. Analyzing the specific challenges certain energy-related assets pose in the post-Soviet region, as well as the options available for states to manage those challenges, may introduce variables leading to a better causal model.
Refining Sovereignty

Key to this asset-level analysis is disaggregating the concept of sovereignty. In international relations, sovereignty generally refers to states owning and controlling territory, and conflict over competing claims to sovereignty is a central feature of the field. The traditional view of sovereignty, however, does not allow for states to ‘share’ sovereignty in any meaningful way, even though states often agree to jointly use territory, often for military purposes. Conceptualizing interstate agreements over sovereignty as contracts, then, can help account for these arrangements, which are prevalent in post-Soviet energy diplomacy. In the literature on relational contracting, there are two components of sovereignty: “control” rights and “use” rights. A state possessing control rights has, at the end of the day, the freedom to change or destroy an asset. On the other hand, a state with use rights has, within a specific range of time, the freedom to determine how that asset interacts with its environment. A relational contract, then, is an agreement where states decide how to allocate control and use rights among themselves for given territory. As opposed to an ordinary contract, where individuals rely on state mediation to ensure the cooperation of all parties, relational contracts are more like informal bargains, where the constellation of state capabilities and interests regarding one another determines the result of negotiations.

It is often the case that a single state possesses both control and use rights for an asset, and the distinction between the two is of no practical use. But cases where one state possesses control rights and another possesses use rights are common, especially within the post-Soviet region. With the dissolution of the USSR, the newly-created states had to develop hybrid forms of governance to accommodate newly-internationalized issues. One prominent example was Sevastopol, where Ukraine retained control rights over the Black Sea port but leased use rights to

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13 Cooley 2000, 101
Russia for naval operations. This relational contract, among others, was not just a result of power dynamics between the two countries, but also how the functional role of the port could accommodate the needs of both states while avoiding conflict entirely. If handling Ukrainian military and commercial vessels wasn’t enough to maintain full port operations, and Russian naval demands did not exceed this excess capacity, the decision to give Russia use rights would not even have to take into account Moscow’s ability to pressure Kiev for access. Since Soviet-era infrastructure remained unchanged when the USSR collapsed, contractual sovereignty offered a way to manage their use when individual states could not do so effectively.

This analysis is well-suited to energy diplomacy specifically, as energy-related assets are, according to the literature, “relationally specific.” Being relationally specific means that energy infrastructure is capital-intensive, dedicated to a specific position on the hydrocarbon supply chain, and not easily substitutable by assets on different international supply chains. In other words, there are very high costs for any post-Soviet states to shift away from Soviet-era energy infrastructure, and if one state does shift away, there can be high costs for others. To minimize these costs, post-Soviet states devised relational contractual arrangements distributing control and use rights to reduce the risk of any one state unilaterally disrupting the energy network. Subsidizing petroleum imports and waiving transit fees would therefore be an informal relegation of use rights, while selling shares in state-owned corporations and redrawing boundaries around oil and gas fields would represent transfer of control rights. If a state unilaterally changes, or threatens to change, any of these arrangements, other states can resort to coercive measures in order to minimize their felt costs from the breach of contract.

Why, then, would states change these arrangements and threaten conflict? If the value of control and use rights change, one partner in the relational contract may adjust their policy to

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14 Ibid, 113
redistribute these rights. These actions, whether they are removing subsidies, charging higher transit fees, restructuring corporate holdings, or pressing claims on territory, force other states to reevaluate whether the new effective terms of contract are ‘worth it.’ This calculation draws on the theory of “relational authority,” which sees hierarchy in international relations as a trade-off where states accept limitations on individual freedom in exchange for benefits from imposed order. Conflict, then, arises when the bilateral conditions facilitating stable, predictable relationships change, and countries decide to alter the distribution of control and use rights. Any country can renege from a relational contract at any time, and with the benefits of hierarchy now outweighing the costs, such unilateral action becomes worthwhile.

One approach to relational authority in the post-Soviet space sees Russia as the instigator of eventual conflict, with Putin adjusting energy policy in response to market developments and domestic needs without focusing on his disruptive effects on regional hierarchy and bilateral relations. While this narrative may help to explain some cases of conflict and cooperation in post-Soviet energy diplomacy, it is by no means comprehensive. A potential argument in support of the Russia-centric explanation is that Soviet-era energy infrastructure prioritized what is now the Russian Federation, giving Moscow some grounds to exert economic leverage over its post-Soviet neighbors. One serious flaw in this explanation, however, is the assumption of a clear regional hierarchy with Russia as the ‘ruler’ and other post-Soviet states as the ‘ruled.’ As shown in previous analysis from this chapter, Putin did not have regional integration under Russia as a prime foreign-policy focus; rather, he sought partnerships for the development of the Russian economy. At the same time, the Putin administration struggled as much against domestic oligarchs as it did against its neighbors. Additionally, even if Russia was trying to change hierarchical dynamics, so was the West, with the Baltic States joining the EU and NATO in 2004

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15 Lake 2009, 334
and other countries, notably Ukraine and Georgia, developing close ties with those institutions. It is therefore likely that Russia was also responding to its neighbors executing unilateral changes in energy policy to take advantage of their own sources of leverage.

Despite overall power asymmetries, Russia’s neighbors have a variety of relational advantages over Russia regarding energy transit. From Central Asian countries discovering new oil and gas fields to states in the Caucasus vying for transit between Iran and Europe, changes in the post-Soviet energy environment are not always in Russia’s favor. Additionally, the literature points to advantages specific to transit states, or countries in between major sources of hydrocarbon supply and demand. Because of their ability to limit pipeline transit, these states can take unilateral action to threaten the profits of petroleum exporters, as well as their ability to finance vital imports. In this position, transit countries can exploit their control rights, as well as subsidies from the Soviet era giving them a privileged position in the status quo, to the relative disadvantage of Russia and other upstream states.\(^\text{16}\) As such, any state along a supply chain, regardless of overall economic power, can engage in disruptive action.

While this analysis may sound similar to the geostrategic explanations offered earlier, the key difference is that the management of relationally-specific assets, not the acquisition of key natural resources, drives state action. By dividing sovereignty into two key components, control rights and use rights, states can form complex agreements that satisfy mutual interests while maintaining the integrity of energy-related assets. These agreements minimize costs in the short-term, but as global and regional environments change, any state can disrupt the distribution of sovereignty. Exploring causal mechanisms for how these situations arise, and why some result in conflict while others do not, is the focus of the next sub-section.

\(^{16}\) Quester 2007, 448
Defining Variables: Structure and Institutions

Within the conceptual framework of relational sovereignty over post-Soviet energy infrastructure, two important questions are still unaddressed: under what circumstances do states attempt to alter the distribution of control and use rights, and what conditions influence whether these attempts result in conflict or cooperation? This subsection will develop two main concepts from the literature on asset-level energy diplomacy, the hold-up problem and conflict-mitigating institutions, and advance a causal model incorporating both as key independent variables.

The first variable, the hold-up problem, is a situation in economics where the owner of a particular asset is able to ‘hold up,’ or refrain from cooperating with, someone else’s economic activity out of fear they will lose bargaining power moving forward. A classic example is the building of a railroad, where a railroad company wants to purchase use rights from landholders along a proposed route. If one such landholder realizes that the negotiating power they have over the railroad will disappear once they sell their holding, they can dramatically increase the price of their plot of land. The railroad company can either accede to the landholder’s request, giving other landholders an incentive to renegotiate their prices, or reroute the track at great cost.

Various solutions to the hold-up problem exist in the private sector, from additional clauses in original contracts to direct government intervention.

For the purpose of analysis, a ‘hold-up situation’ is one where one state seeks to redistribute control rights in response to a corresponding threat to its use rights along a supply chain. In the post-Soviet energy environment, the hold-up problem manifests in the threat of any country to divert or disrupt international petroleum supply chains. Evidence for the salience of the hold-up problem comes from two main observations. First, analysis of property rights violations along supply chains finds that countries decide to nationalize foreign assets not based
on their individual estimated prices, but instead based on their value in relation to other assets.\textsuperscript{17}

The decision to redistribute control rights is therefore a response to changes in the significance of control rights, as states seek possession of assets if they believe such ownership will add to or maintain the value of their supply chain. According to this explanation, all states see themselves as the railroad company trying to limit the disruptive activities of potential landholders. In the post-Soviet region, however, it does not make sense for all countries to adopt this mindset. In particular, transit countries with no control over the major sources of energy supply or demand gain nothing from the rights to change the nature of productive activity occurring within their borders, as they can extract rents from any stage in the refinement process. It is more likely, then, that transit countries are the intransigent landholders of this environment.

The next observation supporting the use of the hold-up problem as an independent variable comes from strategies of pipeline development. In the post-Soviet region, countries building and maintaining pipelines over-invest in expensive routes and under-invest in cheap routes to reduce gains from deviation.\textsuperscript{18} For example, instead of maintaining cheap pipeline connectors through the Baltic States and Poland to Germany, Russia made substantial investments in Nord Stream, which flows directly between Russia and Germany. There are both direct and indirect incentives for countries, especially Russia, to engage in this economically-inefficient behavior. First, if countries receiving energy supplies through cheap links threaten to deviate from their relational contracts, there is a direct, immediate threat to invest in the larger, long-term projects instead of providing maintenance for the cheap routes. And second, there is an indirect, distant threat of rerouting energy exports to bypass the ‘misbehaving’ states. The important factor at play here is the economic inefficiency of the larger projects. Without the need

\textsuperscript{17} Luong and Sierra 2016, 31-2
\textsuperscript{18} Hubert 2008, 3
to respond to an anticipated cost originating from action by the midstream countries, it makes no economic sense to sink more and more resources into an inferior transit project. Again, post-Soviet countries respond to changes in their relative ‘hold-up position’ by changing the distribution of control rights, here by investing in new assets.

The next independent variable, conflict-moderating institutions, is more the aggregation of separate potential variables than the development of a unique one. The common denominator, however, is the ability to form credible commitments. Credible commitment theory argues that, in order for cooperation to occur all parties must trust that future action will not disrupt present agreements. States can build trust through commitment devices, or particular decisions which limit future ability to renege on agreements. A credible commitment to stable energy transit, then, could rely in part on post-Soviet countries codifying laws which respect property rights, thereby signaling a respect for the foreign use of infrastructure on their respective territories. Recent scholars on credible commitments, however, emphasize that institutional mechanisms for developing commitments go beyond simple factors of democratic or authoritarian governance.\(^\text{19}\) Rather than expectations of democratic accountability and authoritarian arbitrariness, which often don’t meet reality, the literature argues that transparency and international institutions can help ensure commitments are credible. But opaque institutions can also ensure credibility, as corruption and backroom intrigue can ensure cooperation between countries with conflictual official positions. Given the aforementioned accusations of kleptocracy in Russian economic governance, these personalized, often-illegal institutions could be a powerful force for moderating conflict.

Another moderating institution is the state itself. Analysis of the internationalization of state-owned petroleum companies in the early 2000s shows that an early convergence of

\(^{19}\) Stulberg 2012, 830
government foreign policy imperatives and corporate revenue-maximizing interests facilitated
the transfer of funds required to invest abroad, as well as the diplomatic connections often
needed to negotiate with foreign corporations.\textsuperscript{20} These connections, however, do not have to
come through official channels; rather, they can come from governmental institutions officially
unrelated to the determination of energy policy. The personal connections of individuals in key
government positions, the benefits of participation in regional institutions, and ideological
similarities between countries can all contribute to soft power. Although a theoretical discussion
of soft power is peripheral to this paper’s analysis, potential manifestations of the concept will
appear in the case-study comparisons, and competing sources of this moderating factor will
factor into later quantitative analysis.

A final institution moderating conflict comes from the rules surrounding foreign
investment, which determine how public and private entities can distribute the control rights of
individual assets. Recent scholarship on these institutions finds that cross-border investment that
is more expensive for outside countries, such as mergers or acquisitions, discourage future
coercive action by the external state, while investments that are comparatively more expensive
for host countries, such as joint ventures, facilitate conflict later on.\textsuperscript{21} One way to interpret this
conclusion would be to argue that these differences are merely in the distribution of control
rights in the first place, with cross-border acquisitions giving external actors more control, and
therefore less need to take coercive action in the future. The general implication, all else equal, is
that countries with economic policies that prevent foreign companies from acquiring energy
assets are more likely to experience energy-related coercion than those with more liberal
international investment regimes.

\textsuperscript{20} Luong and Sierra 2015, 2019
\textsuperscript{21} Kim 2013, 214
The following diagram summarizes the role of the variables presented in this subsection in Russian energy diplomacy, where ‘change in hold-up situation’ refers to threats to change Russia’s use rights of energy infrastructure, ‘moderating institutions’ refers to the forces promoting credible commitments for cooperative solutions to these threats, and ‘level of conflict/cooperation’ refers to the relative use of coercive tools, such as pipeline shutoffs and punitive renegotiations of pricing agreements. According to the model, ‘Change in Hold-Up Situation is an independent, structural variable providing a motivating cause for Russian action. The structural variable takes two values, with change in the hold-up situation leading to direct and indirect threats to Russian use rights. While direct threats are the result of a neighboring state reneging on its relational contract regarding energy transit, indirect threats are the result of weakened commitments to future cooperation. Next, the independent variable of ‘Moderating Institutions’ takes the two forms of high and low institutional access based on Russian ability to resolve the hold-up problem through formal and informal channels. Lastly, ‘Level of Conflict/Cooperation is the dependent variable, and takes on three values: cooperation, minor conflict, and major conflict. Cooperation refers to harmonization of energy policies across states, and what distinguishes major conflict is Russian willingness to sacrifice its own short-term economic wellbeing. Figures 1 and 2 illustrate the causal model and expected variation.

Figure 1: Simple Causal Model

<table>
<thead>
<tr>
<th>Change in Hold-Up Situation</th>
<th>Level of Conflict/Cooperation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Moderating Institutions</td>
</tr>
</tbody>
</table>
Figure 2: Expected Variation

<table>
<thead>
<tr>
<th>Moderating Institutions</th>
<th>Change in Hold-Up Situation</th>
<th>Indirect Threat to Russian Use Rights</th>
<th>Direct Threat to Russian Use Rights</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Target Institutional Access</td>
<td>Cooperation</td>
<td>Conflict</td>
<td></td>
</tr>
<tr>
<td>Low Target Institutional Access</td>
<td>Conflict</td>
<td>Conflict</td>
<td></td>
</tr>
</tbody>
</table>

Conclusion

This chapter provided an overview of two competing frameworks, geopolitics and relational sovereignty, and explored each to determine their use in explaining Russian energy diplomacy within the post-Soviet environment. After exploring popular explanations of Russian action including the ‘Eurasianist’ and ‘kleptocratic regime’ theories, and surveying analyses of Moscow’s ‘energy arsenal,’ the first section argued that explanations deriving solely from Russian internal governance and domestic capabilities are inadequate in explaining this question of bilateral conflict and cooperation. Next, the section approached regional geostrategic accounts, including the ‘New Great Game,’ ‘splintering urbanism,’ and ‘porous periphery’ arguments, and disputed both their core assumptions and their ability to explain the variation observed in the period from 2000 to 2011. The second section began by introducing the theory of ‘relational authority,’ and determined it to be an adequate framework for understanding the nuanced developments of energy diplomacy following the breakup of the Soviet Union. Exploring the dynamics of control and use rights in depth, the section then established two causal variables, the hold-up situation and moderating institutions, as the key determinants of resolving contention over energy asset sovereignty between Russia and its neighbors. The section concluded by offering a succinct model for Russian action.
The next three chapters will interrogate this model, substantiating its causal mechanisms and countering alternate arrangements of its variables through rigorous case-study and quantitative analysis. In Chapter 3, a case comparison of Russian bilateral relations with Belarus and Kazakhstan illustrates the relative advantages of transit states in mutual hold-up situations and refines the institutional variable by showing how restricting foreign investment facilitates conflict. Next, in Chapter 4, a case comparison of Russian bilateral relations with the Baltic States of Estonia, Latvia, and Lithuania shows how EU membership influenced the ability of Russia’s neighbors to credibly commit to future cooperation and investigates personalized corruption networks as another institution moderating conflict. Finally, in Chapter 5 a cross-sectional time-series analysis of Gazprom export price data will provide quantitative support for the hold-up variable as defined, and show the independent effects of various forces ostensibly acting as moderating institutions within the universe of cases. The next step, though, is demonstrating causality by process-tracing the development of Russian bilateral energy relations and applying the theoretical concepts developed in this chapter to cases of conflict and cooperation in Belarus and Kazakhstan.
Chapter 3: Belarus and Kazakhstan

Introduction

Drawing from the literatures on geopolitics and relational contracting, Chapter 2 established two causal variables, change in the hold-up position and the presence of moderating institutions, which have independent effects on the response variable, the level of conflict and cooperation within the bilateral relationship. The general puzzle of this thesis is proving this causality; that is, demonstrating the discrete effect of each causal variable on the response variable. Doing so requires comparing the results of cases with differing values for the causal variables. This chapter establishes Belarus and Kazakhstan as prime cases for this comparison, based on their hold-up positions vis-à-vis Russia, the institutional arrangements surrounding their energy sectors, and the incidence of conflict and cooperation. Figure 1 repeats the last chapter’s causal model, and Table 1 summarizes the variation present in this chapter.

Figure 1: Simple Causal Model

Table 1: Variation across Belarus, Kazakh Cases

<table>
<thead>
<tr>
<th>Bilateral Relationship</th>
<th>Change in Hold-Up Situation</th>
<th>Moderating Institutions</th>
<th>Conflict &amp; Cooperation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belarus</td>
<td>Increased reliance for transit to Kaliningrad, EU</td>
<td>Socialized Industry</td>
<td>2007, 2010 Shutoffs</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>Development of rival supply to EU, China</td>
<td>Liberalized Industry</td>
<td>2005 Shutoff 2006 Kumkol Acquisition</td>
</tr>
</tbody>
</table>
This chapter explores this variation across and within Russia’s bilateral relationships with Belarus and Kazakhstan, demonstrating the relationships between these variables. First, variation in hold-up situations led to differentiated Russian policy responses. In the case of Belarus, when Russia became more dependent on its neighbor for supplying the Kaliningrad enclave and EU markets, the country began siphoning off and reselling energy for domestic growth. This activity directly challenged Russian use rights for Belarusian transit infrastructure, so Moscow responded by seeking to obtain control rights. When Belarus refused to accommodate this change, the resulting tensions led to pipeline shutoffs. In Kazakhstan, on the other hand, the development of new oil and gas reserves posed a long-term risk to Russian use rights, since Astana sought to create rival transit routes to the EU and China. But when Russia could obtain control rights over new infrastructure, it was able to protect its current use rights without conflict.

Besides their respective hold-up situations, another important difference between Russian-Belarusian and Russian-Kazakh relations is the institutional relationship between the public and private energy sectors. Here, a liberalized energy industry acts as a moderating institution, for two reasons. First, foreign socialized energy sectors reduce profits for Russia. Since Russia generates economic growth through the “commanding heights” of the Russian economy (i.e. its energy sector), socialized economies that actively seek to redistribute profits away from Russia threaten the viability of Putin’s state-centric goals.¹ According to Putin, any international political advantages accrued “at the expense of Russia’s economic interests” are not worth the cost.² Secondly, liberalized energy sectors are relatively open to foreign investment, and therefore can better accommodate sources of tension within mutual hold-up situations. With rules that facilitate, and even encourage, cross-border acquisitions, liberalized economies serve

¹ Domjan and Stone 2010, 39
² Deyermond 2004, 1197
as a commitment device for cooperation in the energy sector. For these reasons, Kazakhstan saw less conflict over energy rights than Belarus because of their differing state-market institutions.

The rest of this chapter presents these arguments in much greater depth, and establishes a nuanced version of the causal model. In the next section, I use the conceptual framework of relational contracting to illustrate the change in hold-up positions between Belarus and Russia and the role of Belarus’s socialized economy. Then, I apply these structural and institutional conditions of the Russian-Belarusian bilateral relationship to trace the process of negotiations over energy control and use rights that led to repeated coercion. Next, I repeat this method for the Kazakh case, describing the change in the Russian-Kazakh mutual hold-up and the circumstances of Kazakhstan’s liberalized energy sector before process-tracing conflict surrounding the Caspian Pipeline Consortium and cooperation over developing new hydrocarbon reserves. Finally, I compare these two bilateral relationships, exploring the specific features of each causal variable, including supply chain position and public-private asset ownership, which led to variation in conflict and cooperation. With this added specificity, I build on the causal model to develop a more nuanced approach for further case-study analysis. Figure 2 illustrates the causal mechanisms revealed in this chapter: temporary relative advantage in the bilateral hold-up and public-private ownership of contentious asset.

Figure 2: Complex Model

<table>
<thead>
<tr>
<th>Temporary Relative Advantage in Mutual Hold-Up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Privately-Owned Target Asset</td>
</tr>
<tr>
<td>State-Owned Target Asset</td>
</tr>
<tr>
<td>Cooperative Conflict Resolution</td>
</tr>
<tr>
<td>Coercive Conflict Resolution</td>
</tr>
</tbody>
</table>
The First Case: Russian-Belarusian Bilateral Relations

During the period from 2000-2011, a once cooperative relationship between Belarus and Russia descended into conflict over energy-related disputes. Using the language of the hold-up problem from Chapter 2, in this section I argue that these incidences of conflict were the result of Belarus taking advantage of its temporary ability to hold up Russian exports. Belarusian President Lukashenka, aware that alternate regional projects in Ukraine and the Baltic Sea would eventually displace his country as Russia’s key transit route to Europe, sought to extract as much revenue as he could from Russian transit to finance his socialized economy. In doing so, however, Lukashenka directly threatened Russian use rights for transit through Belarus to the Russian province of Kaliningrad. Moscow responded by requesting partial control rights of Beltransgaz, the state-run Belarusian energy monopoly, but Lukashenka refused to sacrifice the domestic benefits of his socialized economic institutions. Without this institutional access, it took two pipeline shutoffs in 2007 and 2010 to transfer Beltransgaz control rights and stabilize the mutual hold-up. The following subsections expand on this account, providing background on the causal variables and analyzing the incidences of conflict in this case.

Hold-Up Situation

During the Soviet era, the Belarusian hydrocarbon industry was but one part of the Russian whole, centrally planned from Moscow. The Mazyr and Novopolatsk refineries, built in the 1970s as petroleum prices dramatically increased, processed Russian oil and sold it to the West, providing a key source of revenue for the USSR. After the breakup of the Soviet Union, Belarus did not seek economic restructuring or the development of trade alternatives, and so the countries maintained its Soviet-era dependencies on Russia for both natural resources and

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3 Karol 2006, 52
manufactured goods. Throughout the 1990s Belarus was not a major transit route for oil exports to the West, but increasingly “monopolistic” behavior by Ukraine prompted the construction of the Yamal-Europe pipeline through Belarus. The Yamal-Europe pipeline became operational in 1997 and was completed in 2005, running alongside the Soviet-era Northern Lights natural gas pipeline. With these infrastructural changes, Belarus became an important transit state for Russian energy exports, adding a second dimension to its trade relationship with Russia.

Belarus profited greatly from its position as a major transit country along the Russian hydrocarbon value chain in the early 2000s. Both Belarus’s hydrocarbon and manufacturing sectors depended upon cheap Russian energy imports. In 2000, Russia covered nearly 80 percent of Belarus’s energy requirements, providing 100 percent of the country’s gas and 90 percent of its oil. Belarusian industry greatly benefited from cheap Russian gas imports: in 2006, Belarus paid $46.68 per 1000 cubic meters, less than one-fifth of the price in Germany. Effective subsidies ranging from $7-10 billion, about 30 percent of the country’s GDP, created the conditions necessary for the “Belarusian economic miracle” of the early 2000s. Belarus-EU exports rose 70 percent from 2003-5, accounting for nearly half of the country’s total exports, and Russia itself provided a market for another third of Belarusian products, mainly heavy machinery. But besides facilitating industry, the effective subsidies allowed Belarus to make $3 billion annual profit refining and re-exporting Russian crude oil. Throughout the period of study, petrochemicals amounted to 65 percent of Belarusian exports to the EU. Belarusian economic prosperity, then, was a direct result of Russian energy policy.

4 Deyermond 2004, 1199
5 Von Hirschhausen et al. 2005, 50-2
6 Marples 2008 “Russia-Belarus,” 27-9
7 Materials Today 2009, 29
8 Karol 2006, 52
9 Fadeev 2007, 97
10 Materials Today 2009, 29
Belarus was aware, however, of its precarious position downstream of Russia’s petroleum industry. In 2005, a Belarusian government commission concluded that by the end of the decade the country’s dependence on Russian oil and gas could become a liability, as the risk of pipeline accidents and price increases mounted.\textsuperscript{11} From this assessment, Belarus devised a two-pronged strategy. First, the country threatened to respond to any increase in Russian export prices by imposing tariffs on Russian energy transit. And second, Belarus planned to diversify its energy supply through such countries as Azerbaijan, and Iran.\textsuperscript{12} Additionally, Lukashenka touted a potential transition towards nuclear energy through the construction of domestic reactors, but early considerations of this endeavor revealed that it would make Belarus even more dependent on Russia in both the short and long term.\textsuperscript{13} When attempts to diversify Belarus’s energy supply also fell through, increasing tariffs, and thereby further challenging Russian use rights for Belarusian transit, became the only recourse available to counter Russian action.

While sources of Russian leverage, and Belarus’s attempts to respond to them, did partially set the stage for conflict between 2000 and 2011, Belarus also had the potential to hold up Russia’s economic interests. During the period, Belarus transported about 20 percent of Russian gas exports to Europe, giving it the ability to issue credible threats to restrict or siphon off the flow of Russian petroleum exports.\textsuperscript{14} Additionally, supplying energy to the Russian province of Kaliningrad required pipelines either through Lithuania or Belarus; after Lithuania’s accession to the European Union and NATO mid-2004, Belarus gained the capability to effectively deny easy supply of oil and gas to the partial exclave.\textsuperscript{15} President Putin took a firm position against potential Belarusian exploitation of these sources of leverage, saying he would

\textsuperscript{11} Marples 2008 “Energy Dilemma,” 220
\textsuperscript{12} Fadeev 2007, 98
\textsuperscript{13} Marples 2008 “Energy Dilemma,” 225
\textsuperscript{14} “Gazprom Finally Bags Beltransgaz,” \textit{Natural Gas World}, Nov 26, 2011
\textsuperscript{15} Godin 2008, 21
not tolerate transit countries behaving like “parasites.” Believing itself to have the dominant position in the mutual hold-up, Putin believed that Belarus would accede to his demands if Russian use rights came into contention.

Moderating Institutions

Besides the mutual hold-up situation, Belarusian socialized economic institutions provided another factor leading to conflict during the period of study. Under President Aleksandr Lukashenka, Belarus attempted in the years since independence to maintain the socialist socioeconomic priorities of the Soviet Union. As opposed to other countries, including Russia and Kazakhstan, which liberalized their economies to stimulate entrepreneurial big business, Belarus sought to continue to foster a socially-oriented market economy. Regime legitimacy for Lukashenka, then, derived from being able to secure cheap energy for personal and industrial use, as well as a substantial welfare state largely financed by hydrocarbon transit. Before Putin, Russia accommodated this regime priority, forgiving more than one billion dollars in gas debt accumulated from 1991-5 for leases on Belarusian military infrastructure in a deal called the “zero option.” Additionally, prior to 2000 Lukashenka relied on promissory notes and barter payments (e.g. agricultural produce) to handle consistent Belarusian energy debts, a flexibility that allowed Minsk to collect benefits from petroleum transit at minimal cost.

After 2000, then, Lukashenka continued to expect similar treatment by Russia to bolster his domestic legitimacy. In 2004, Russia agreed to price gas exports to Belarus at $46.68 per thousand cubic meters, but indicated that the price would gradually rise to match general

16 Klinke 2008, 118
17 Godin 2008, 20
18 Fadeev 2007, 100
19 Vieira 2014, 568
European exports. In 2006, however, Lukashenka made sustaining the 2004 gas price a central component of his reelection campaign.\textsuperscript{20} The price held, but Putin accused the Lukashenka regime of using the “gas card” to enhance local support and bolster nationalistic sentiment.\textsuperscript{21} While Putin himself may have had ulterior motives for this public assessment of Lukashenka’s intentions, analysis of Belarus’s economic situation indicated that, had Russia’s effective subsidization of Belarusian gas ended, it would have put increased pressure on Minsk for significant economic and political reforms.\textsuperscript{22} While this example does not point to an explanation for Russian policy, as Moscow gave in to Belarusian demands, it illustrates how Lukashenka’s preferences for attaining domestic legitimacy clashed with Putin’s goals of Russian economic development, amplifying the tensions of the mutual hold-up.

\textit{Analysis: The 2007 and 2010 Pipeline Shutoffs}

With the structural and institutional causal factors established, the next step is to locate these variables and their effects in a case study of Russian-Belarusian energy policy. To do so, this section will trace the process of negotiations with Belarus over transit prices and ownership of Beltransgaz, Belarus’s energy monopoly. This exercise will emphasize how Russian and Western observers perceived the hold-up situation, how Belarus’s socialized economic institutions shaped the range of possibilities available for Russia to respond to the hold-up situation, and how these factors led to repeated pipeline shutoffs in 2007 and 2010. Broadly, this section illustrates how Belarus attempted to hold up Russian energy transit to the EU and

\begin{itemize}
\item \textsuperscript{20} Marples 2008 “Russia-Belarus,” 31
\item \textsuperscript{21} Marples 2008 “Energy Dilemma,” 217
\item \textsuperscript{22} Vieira 2014, 568
\item \textsuperscript{23} While the bulk of following citations are from the Current Digest of the Russian Press (CDRP), the press sources themselves range in outlook from Russian government analysis (Rossiskaya Gazeta) to liberal business interests (Kommersant) to Communist Party positions (Sovetskaya Rossiya). Careful to cross-referencing of fact claims and explicit sourcing of opinions prevents bias from influencing the analysis.
\end{itemize}
Kaliningrad, threatening Russian use rights, and how the socialized Belarusian energy sector prevented Russia from protecting its rights through cooperative means.

In the years preceding the first major natural gas shutoff between Belarus and Russia in Russia, the main concern between the two countries was the planned privatization of Belarus’s pipeline monopoly, Beltransgaz, and improving market relations in Minsk. As early as 2000, Russian public opinion called on Belarus to embrace market reforms which would be “socially painful” but would prevent “losses caused by inefficient production in an economy with poor market relations.” Key to these reforms would be a joint venture to privatize Beltransgaz and transfer half its equity to Gazprom. With Gazprom acting as a check on independent Beltransgaz decision-making, this joint venture would have prevented Belarus from holding up Russian gas shipments to Europe, stabilizing the bilateral relationship. As Beltransgaz was the ‘crown jewel’ of Belarus’s socialized economy, however, Lukashenka was loath to sacrifice it for stable relations with Gazprom. When negotiations heated up in November 2002, Lukashenka decried the “immediate” privatization of Beltransgaz, threatening to charge Russia transit fees, siphon off Russian gas for re-export, and search for “alternative supplies of energy resources.” Only one day later, however, with a Russian announcement that the country was planning a major gas pipeline from Leningrad to Germany, Belarusian negotiators reportedly acceded to the terms of the privatization joint venture.

For the next three years, the bilateral relationship remained stable as Russia seemed able to secure cooperation over Beltransgaz with the threat of eventually rerouting gas exports through alternative pipeline projects. In 2003, reports on Belarus’s hydrocarbon industry indicated that the country could not afford $500 million in Beltransgaz repairs due for 2005.

24 CDRP 52(51) 2000, 19
25 CDRP 54(46) 2002, 5
26 Ibid, 7
without Russian aid, and that Russia would have completed its Yamal-Europe pipeline through Ukraine by then.\textsuperscript{27} The same report highlighted Belarus’s economic dependence on Russian oil and gas. As Belarus depended on cheap Russian energy for industrial solvency and its own government revenues, while Russia stood ready to diversify away from Belarus if necessary, Moscow visibly strengthened its position to exert leverage over Beltransgaz. Because of this power asymmetry, by the end of 2005 the two countries were reportedly “enthusiastic” about future cooperation between their hydrocarbon monopolies.\textsuperscript{28}

In December 2006, however, when Gazprom proposed a transition towards European pricing of natural gas in tandem with the transfer of ownership of Beltransgaz, Belarus countered by increasing transit fees for Russian gas and inflating the sale price of its transit monopoly. Gazprom acquiesced to the higher sale price, paying $625 million for only a 12.5\% stake in Beltransgaz (valuing the company at $5 billion, 50 percent higher than its estimated market value).\textsuperscript{29} Additionally, Russia dramatically lowered its requested price for gas exports from $230 to $105 mcm, but the issue of transit fees resulted in a three-day pipeline closure in January 2007.\textsuperscript{30} By January 12, Belarus and Russia agreed to a series of bilateral taxes and tariffs on petroleum products, and the pipelines reopened as Putin and Lukashenka agreed to the combined policy package. With European policymakers describing Minsk’s actions during this crisis as “unprecedented”\textsuperscript{31} and Belarus seeming to have the advantage over Russia in the negotiating process, the outcome of these end-of-year negotiations were opposite of what may have been expected based on bilateral developments of the previous years. If, according to Belarusian officials, Russia was able to “bring the entire Belarusian economy to its knees” by introducing

\textsuperscript{27} CDRP 55(23) 2003, 17  
\textsuperscript{28} CDRP 57(51) 2005, 6  
\textsuperscript{29} CDRP 59(31) 2007, 11  
\textsuperscript{30} CDRP 58(52) 2006, 1  
\textsuperscript{31} CDRP 59(1) 2007, 6
reciprocal pipeline shutoffs, what explains Belarus’s resorting to coercive measures and Russia’s inability to secure its interests?

While Russia certainly had a long-term advantage over Belarus in negotiations, and indeed was able to make progress in securing higher gas prices and partial ownership of Beltransgaz, Belarus used the shutoff to demonstrate that it too retained the capacity to hold up Russia in the short term, and was willing to do so to protect its own interests. The shutoff threatened the Kaliningrad province the most, as it had no local gas storage facilities, making it dependent on continuous energy supply through Belarus. Additionally, the Russian machinery and defense industries were dependent on Belarusian-refined petroleum, making them vulnerable to drop-offs in bilateral relations with Minsk. Moscow was unwilling to sacrifice vital industries and an entire province to wrest dramatic concessions from Lukashenka, and therefore settled for less in 2007. At the same time, however, Russia was pursuing alternate transit options and increasing domestic refinery activity, eroding Belarus’s capacity to hold up its energy security. In addition to developments in the North Sea, Gazprom and Italian corporation Enti signed off on the South Stream pipeline project under the Black Sea later in 2007, bypassing Belarus. With time running out for Belarus to exercise its sources of leverage over Russia, it makes sense that Lukashenka decided to hold up Russia when he still could, even if that risked further harm to the Belarusian economy.

The second major gas crisis between Belarus and Russia occurred in June 2010, when Belarus siphoned off gas meant for transit to Kaliningrad and Lithuania for its own domestic use. With Lukashenka up for reelection and his country in tough economic straits following the 2008

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32 Ibid, 4
33 CDRP 58(52) 2006, 3
34 CDRP 59(1) 2007, 6
35 CDRP 59(26) 2007, 4
global financial crisis, Belarus was more likely to be intransigent on the gas issue. Additionally, with the expected privatization of the Mozyr and Naftan-Polimir refineries occurring that year, Russian experts anticipated Minsk to link the asset transfer with expected gas price increases.\footnote{CDRP 62(1) 2010, 1-2} Whereas Gazprom expected export prices to reach 90 percent of European levels by 2010, Minsk wanted to hold prices at 27 percent.\footnote{CDRP 60(40) 2008, 16} In the middle of that year, then, Lukashenka demanded Russia pay transit fees and reduce export prices, and began siphoning off gas until Russia complied.\footnote{CDRP 62(24) 2010, 9} As Russia had already obtained a share in Beltransgaz, its use rights through Belarus were secure, and there was little need to escalate this disruption. The Russian-Belarusian energy conflict reached its conclusion a few months later in 2011. When Moscow heard of a Belarusian plan to cede equity in the privatized refineries to European companies if Russia didn’t accede to its terms, Gazprom softened its position on prices in exchange for securing its deal for complete ownership of Beltransgaz.\footnote{CDRP 63(34) 2011, 16} With this asset transfer, Russia significantly reduced Belarus’s ability to hold up its hydrocarbon transit.

After two pipeline shutoffs, Russia was able to protect its use rights for Belarusian energy infrastructure by acquiring control rights over Belarus’s energy monopoly. These conflictual outcomes were the result of two factors: the limited time horizon of Belarus’s sources of leverage in the mutual hold-up and Russia’s inability to secure ownership of the socialized Beltransgaz through market institutions. As Belarus recognized its sources of leverage over Russian transit to the EU and Kaliningrad would soon disappear, it relied on to maximize potential gains from negotiations with Moscow over Beltransgaz privatization. For Belarus, the gains of a higher price tag for Beltransgaz, revenues from transit fees for EU-bound Russian
exports, and continued below-market prices for its own energy imports were worth the risks of temporary pipeline shutoffs. Far from irrational, Lukashenka was instead forward-looking, successfully holding up Russia before Putin could diversify away from Belarus.

While this case clearly establishes a causal mechanism for the hold-up variable impacting conflict and cooperation, it does not prove that Belarus’s socialized energy sector had its own independent effect. Because economic liberalization in Belarus’s energy sector was a result of interactions with Russia during the period of study, this case cannot by itself establish causality for the institutional variable. By comparing the Belarus case against another country with a different arrangement of state-market institutions, however, variation in outcomes can provide evidence for a causal relationship. The next section of this chapter will analyze the case of Russian-Kazakh bilateral relations, demonstrating the impact of the hold-up situation and economic liberalization. Comparing this case with Belarus will better establish economic liberalization as an effective institution for moderating post-Soviet energy-related conflict.

The Second Case: Kazakh-Russian Bilateral Relations

During the period from 2000-2011, Kazakhstan developed a center of upstream hydrocarbon production and transit that challenged Russia’s regional monopoly on petroleum exports. This change in regional energy infrastructure posed a long-term, indirect threat to Russian use rights, as a competitive, independent Kazakh energy supply would give Europe the ability to diversify away from Russian petroleum. In this situation, Russia had a limited time frame to hold up the construction of new energy infrastructure and secure control rights. In this section, I argue that since Kazakhstan’s liberalized energy sector provided space for Russian companies to invest in cross-border acquisitions, the management of this hold-up problem
resulted in cooperation where such business ventures were successful, including the development of the Kumkol oil field in 2006, and conflict when they were not, such as negotiations over the Caspian Pipeline Consortium in 2005. While Kazakhstan’s long-term advantage in the mutual hold-up provided motivation for Russian action, the presence of liberalized economic institutions moderated Moscow’s response. The following subsections expand on this account, providing background on the causal variables and analysis of the process surrounding the incidences of conflict and cooperation in this case.

Hold-Up Situation

Before the breakup of the Soviet Union, the Kazakh SSR had a function similar to that of Belarus in processing and transporting Russian oil and gas products. Beginning in 1979 with the discovery of the Tengiz oil field, however, Kazakhstan opened up as an alternate source of supply for petroleum exports to Europe. Whereas earlier Soviet leaderships developed Russian petroleum fields without a concern over profit, as they supplied domestic energy concerns in a non-market system, the newly-discovered Kazakh fields offered a potential for foreign direct investment and an expanded revenue stream, necessary for both modernizing and maintaining the Soviet economy.\textsuperscript{40} But as the USSR lacked the technical capacity to develop the Kazakh fields, Western multinational corporations, such as U.S.-headquartered Chevron, began to invest in these projects.\textsuperscript{41} With a declining economy and eventual political disintegration, however, the USSR failed to fully develop Kazakh petroleum reserves even with Western aid. By 1994, the

\textsuperscript{40} Marten 2007, 23
\textsuperscript{41} Domjan and Stone 2010, 38
newly-independent state of Kazakhstan depended heavily on Russia for energy, which comprised nearly one third of total Kazakh imports.\textsuperscript{42}

Russian leverage over Kazakhstan from 2000 to 2011 derived primarily from Kazakh dependence on Russian energy infrastructure for the bulk of its Europe-bound hydrocarbon exports. The Caspian Pipeline Consortium (CPC), commissioned under Yeltsin and commenced in 2001, subjected Kazakh energy exports to Russian needs and policies, especially regarding transit of Kazakh hydrocarbons through countries engaged in their own energy disputes with Russia, such as Ukraine.\textsuperscript{43} The CPC remains the only private export pipeline in Russian territory; while the Russian state does hold equity in the pipeline, it was not been able to secure majority ownership during negotiations with Kazakhstan and Western investors.\textsuperscript{44} Here, then, even when Russia had a seemingly favorable position, Kazakhstan’s upstream position and alternative transit routes through the Caspian Sea to Europe gave the country superior bargaining power. But as a significant conflict in the Caspian Sea could seriously disrupt Kazakh energy exports, as was seen in a 2009 Iran-Azeri crisis,\textsuperscript{45} Russia still maintained the potential for leverage over Kazakh exports throughout the period of study.

In response to these sources of Russian leverage, Kazakhstan has developed a flexible approach to energy diplomacy. On one hand, after explorations by Western companies in 1994 determined the viability of Kazakh hydrocarbon production, President Nazarbayev asserted Kazakhstan’s territorial rights in the Caspian, challenging Russian interests. At the same time, however, Nazarbayev has consistently offered both Russian private companies and the Russian

\textsuperscript{42} Ipek 2007, 1180
\textsuperscript{43} Haas 2015, 645
\textsuperscript{44} Domjan and Stone 2010, 41
\textsuperscript{45} Haas 2015, 638
government opportunities to participate in the development of the Kazakh energy sector. By playing Western, Russian, and more recently Chinese, interests against one another, Kazakhstan has been able to minimize Moscow’s leverage over the country’s energy policy. The tactics and goals of this Kazakh strategy are quite explicit; indeed, a common expression in the country holds that “happiness is multiple pipelines.”

Besides the country’s ability to counter and accommodate Russian interests, Kazakhstan itself held unique sources of leverage over Russia in the hold-up situation. First, Kazakh refineries in Pavlodar and Chimkent primarily process crude oil from Siberia. While these Kazakh refineries could substitute domestic oil for their operations, the unique consistency of Siberian crude renders it impossible to mix with other refining operations in Russia. Without the use of Kazakh refineries, which Kazakhstan could withhold at little cost, a significant portion of Russian oil production would have to be rerouted and refined elsewhere, at considerable expense. Second, during the period of study Kazakhstan was Russia’s sole transit country for petroleum exports to China. Although at the time of writing Russia is developing multiple pipeline projects with China, until 2011 Russia sent 75 thousand barrels of oil per day to China through the Omsk-Pavlodar-Atsau pipeline, shared with Kazakhstan. Finally, Kazakhstan’s geographic position relative to Russia would give it an advantage over Russia in the advent of high-intensity global conflict. In the case of crisis in the Persian Gulf, Kazakh competition with Russia would prevent Moscow from being able to command energy prices in both Western

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46 Ipek 2007, 1182-3
47 Marteen 2007, 25
48 Ipek 2007, 1181
49 Movkebaeba 2013, 85
Europe and East Asia.\(^{50}\) In these ways, Kazakhstan could hold up Russian energy ambitions both bilateral and regional, forcing Moscow to cooperate with Astana during this period.

**Economic Liberalization**

President Nursultan Nazarbayev, who has ruled Kazakhstan since 1989, has focused his economic policy on strong growth through foreign investment and the development of domestic capacity in the energy sector. By having local firms take active technical roles in foreign-led industrial developments, Nazarbayev has encouraged Kazakh corporations to build expertise and expand across the hydrocarbon value chain.\(^{51}\) Key to Nazarbayev’s strategy was a rapid liberalization process that began in 1994 with a law protecting foreign investments from nationalization and expropriation, and culminated in 1997 with a decree on the privatization and restructuring of the Kazakh energy sector.\(^ {52}\) Similar to how Vladimir Putin himself garnered power and prestige by way of economic growth, Nazarbayev used the prosperity generated by substantial foreign investments to strengthen the legitimacy of rule by his zhuз (clan).\(^ {53}\) While Russian privatization in the 1990s transferred state resources to newly-created domestic businesses, Kazakhstan largely privatized to foreign investors. This decision created a business environment with a relatively high tolerance for foreign investment, and many Russian companies in particular have gained high levels of access and influence within the country as result. For example, Lukoil, one of the largest privately-owned hydrocarbon companies in the world, has its Kazakh offices in the Astana headquarters of KazMunaiGas, the country’s own

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\(^{50}\) Marten 2007, 23  
\(^{51}\) Domjan and Stone 2010, 53  
\(^{52}\) Serin and Yüksel 2005, 11-12  
\(^{53}\) Domjan and Stone 2010, 36
natural gas monopoly. Since Lukoil has been in close cooperation with Gazprom ever since Vagit Alekperov, the last Soviet Deputy Energy Minister, created the private company out of cherry-picked state assets, the corporation serves as a prime example of close Russian-Kazakh relations in the energy sector brought about through economic liberalization. Although after 2007 Kazakhstan began to reassert government control over the energy sector through increased taxes and fees for foreign companies, Western entities have largely borne the brunt of these changes, leaving the Russian-Kazakh business relationship constant during the period of study.

**Analysis: CPC Conflict and Kumkol Cooperation**

The main development in Russian-Kazakh energy diplomacy during the period of study was the development of the Caspian Pipeline Consortium. As mentioned previously, the CPC, which runs from the Tengiz oil field in Kazakhstan to the Russian port of Novorossiysk, is the only export pipeline on Russian territory not completely owned by Transneft. The CPC was therefore a point of contention as Kazakhstan sought to develop its domestic petroleum industry with the aid of foreign multinationals, such as Chevron, in the 1990s. Through complaints about chemical processing, Russia prevented regular exports by Tengizchevroil as it tried to pressure Chevron to accept non-decision-making status in the CPC. Russia was unsuccessful, and by the end of 2001 eleven companies from six countries, including Russia and Kazakhstan, officially signed on to the CPC. According to U.S. experts, the CPC initiated the opening of the biggest alternative supply of oil to the world market in three decades. At around the same time,

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54 Marten 2007, 30
55 Marten 2007, 29
57 Ipek 2007, 1186
58 CDRP 53(42) 2001, 17
59 CDRP 53(48) 2001, 17
Kazakhstan convinced Russia to formally accept the Baku-Ceyhan project, which would connect Kazakh petroleum to European markets through Turkey, bypassing Russia. \(^{60}\) With Russia backing down from statements made with Iran opposing alternate Caspian pipeline routes, Kazakhstan demonstrated its potential for leverage over Moscow.

In the next few years, Kazakhstan used its superior position in the mutual hold-up to secure gains over Russia where possible. In 2002, there were two negotiations with different aspects of the hold-up at play. First, in the development of three Kazakh fields in the Caspian, Russia and Kazakh agreed to operate on a 50-50 basis for each, even though Putin wanted full control of one field. \(^{61}\) In terms of transit, however, a stalled Baku-Ceyhan project allowed Moscow to successfully impose fees on Kazakh petroleum exports while guaranteeing a Russian monopoly on the country’s Europe-bound exports. \(^{62}\) Later, in early 2005, when delineating official borders between Russia and Kazakhstan, Nazarbayev linked the renunciation of Russian claims in northern Kazakhstan to the equal partitioning of the Imashevskoye field, even though the Kazakh president had previously indicated he would be willing to split the field at zero cost. \(^{63}\) Based on these interactions, it was clear that so long as Kazakhstan was unable to successfully develop alternate pipelines, Russia had an advantage in transit issues, but such advantage did not exist over field ownership.

It was at this point that Russia decided to exercise its leverage more forcefully. In October 2005, Russia blocked transit through the CPC, forcing costly redistribution by rail of Kazakh exports, until Russia gained preferential terms for CPC development. \(^{64}\) And in the same month, a legal campaign by Lukoil against the Canadian firm PetroKazakhstan forced the

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\(^{60}\) CDRP 53(11) 2001, 19  
\(^{61}\) CDRP 54(20) 2002, 19  
\(^{62}\) CDRP 54(23) 2002, 17  
\(^{63}\) CDRP 57(3) 2005, 16  
\(^{64}\) Ipek 2007, 1191
company to sell its transit and refining assets affiliated with the Kumkol oil field and Chimkent refinery. Working closely with the Kazakh government and KazMunaiGas, Lukoil successfully forced both PetroKazakhstan and the China National Petroleum Corporation to cede assets to Russian and Kazakh actors by the end of 2006. These two developments show both the hold-up and state-market relations variables in actions. First, the stalled Baku-Ceyhan project shifted the hold-up situation from Kazakhstan’s advantage to a mutual hold-up, giving Russia the motivation to secure preferential positions in CPC and Kumkol developments. Then, Kazakhstan’s semi-liberalized petroleum industry gave Russian actors the ability to pursue their interests through cooperation where their interests aligned with Kazakhstan’s, but the CPC’s direct threat to Russian energy transit led to conflict.

With these redistributions of control and use rights in Moscow’s favor, Russia and Kazakhstan saw further cooperation through the end of 2007. Despite a Transneft position that CPC expansion was not profitable, Putin and Nazarbayev reached a quick consensus in May 2007 over gas pricing, the operations of the Russian Orenburg refinery, and further development of the Consortium. Just three days later, Nazarbayev skipped a summit in Poland held by a group discussing the creation of an “energy NATO” with the expansion of an Odessa-Brody pipeline which would bypass Russia. In the absence of viable alternate pipeline routes, as Russia had after Belarus’s shutoffs, Kazakhstan instead doubled down on its commitment to Russian transit to prevent further conflict with Moscow. During this short period of a balanced hold-up situation, where Russia depended on Kazakhstan for refinery activity and Kazakhstan on Russia for transit, the two countries could not risk alienating one another.

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65 Marten 2007, 33
66 CDRP 59(20) 2007, 1-3
From early 2008 to the end of the period of study, however, Kazakhstan regained its advantage in the mutual hold-up, forcing Moscow to play by its rules. Key to this development was the signing of an agreement to build a pipeline to China, opening up an alternate market for Kazakh petroleum exports. In the same March news cycle as the agreement with China, Kazakhstan arranged to sell its gas to Gazprom at European prices for 2009, to which Moscow quietly agreed. A month later Kazakhstan restarted progress on the Baku-Ceyhan pipeline, forced an Italian multinational to cede its stake in the Kashagan field to KazMunaiGas, and made a public threat to reroute its oil through the Caucasus if Russia stalled on CPC development.

Then, in July, KazMunaiGas rejected a bid by Gazpromneft to partner in development of assets in the Kazakh Mangystau region, choosing instead to work with the Chinese National Petroleum Company. The reestablishment of alternate Kazakh pipeline routes once again gave the country an advantage in the mutual hold-up with Russia, and allowed a significant pivot away from Moscow towards China and other partners. As Moscow lost leverage in its relationship with Kazakhstan, it tried to improve its position via the market but failed to make progress even there. But Kazakhstan didn’t entirely rebuff its Russian partners, as the 2011 Xian Initiative led to increased prospects of an integrated energy market between the two countries and China. By the end of the period of study, Russia was able to pursue its interests in Kazakhstan through market endeavors.

Throughout this period, then, the arrangement of state-market economic institutions shaped Moscow’s reactions to Kazakh developments threatening use Russian use rights to refineries and pipeline routes. Kazakhstan’s liberalized energy sector gave Russia space to

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67 CDRP 60(10) 2008, 12-13
68 CDRP 60(16) 2008, 13-15
69 Domjan and Stone 2010, 56
70 Movkebaeba 2013, 81
negotiate for control rights over new petroleum reserves without the need for coercion. While Russia did shut off pipeline transit over CPC negotiations, this outcome was the result of two factors. First, since the CPC crosses Russian territory and has non-Transneft partners in its corporate ownership, potential changes in control rights directly threatened Russian use rights in its own territory. New energy reserves, on the other hand, only indirectly challenged the Russian use of Kazakh refineries and pipelines. The second distinction, though, is the role of state vs. private ownership. Even though Kazakhstan is open to foreign investment, its own state-run energy company, KazMunaiGas, seeks to secure the country’s own control and use rights. When Russian and Kazakh state interests collided over CPC ownership, the outcome was conflictual. In the Kumkol case, however, Lukoil and KazMunaiGas cooperated to wrest control rights from Canadian and Chinese firms. This finding – that the public-private control of assets in contention influences how state-market economic institutions operate – provides an added level of nuance for understanding post-Soviet energy diplomacy.

**Conclusion**

Based on these accounts of Russian relations with Belarus and Kazakhstan from 2000 to 2011, it is clear that structural conditions of the mutual hold-up situation and institutional conditions of state-market relations operated simultaneously to produce different results for each case. In both cases, moments of conflict arose when an opportunity arose for the state in the inferior hold-up position to exercise its leverage to a greater effect relative to other times for action. For Belarus, this moment was the beginning of 2007, before the development of the North Stream and South Stream projects that would allow Russia to bypass the country at little cost. And for Russia, this moment was in mid-2005, when progress on Kazakhstan’s Baku-
Ceyhan pipeline stalled and before the introduction of major Kazakh-Chinese projects. Both states which engaged in shutoffs had a worse position in their overall hold-up positions during the period of study, but took coercive measures when they had a window of opportunity to obtain more favorable outcomes from such actions. Additionally, both countries to engage in coercive action were downstream of their respective partners.

Next, in both cases state-market relations determined the extent to which these downstream actors engaged in coercive measures during their windows of opportunity. In the Belarus case, a significant preference by Lukashenka to hold onto assets for their ability to generate revenue for his extensive socialized economy prevented Minsk from accommodating Russian interests via the market. On the other hand, in the Kazakhstan case Russia was able to successfully work through Lukoil to improve its position in the Kumkol oil field while simultaneously shutting off Transneft’s pipelines. Additionally, whereas Lukoil was a private company engaging independently in negotiations over a privately-owned asset, Transneft and KazMunaiGas were state monopolies with a lower degree of liberalization, offering less room for purely business interests to manage the international dispute. While economic liberalization did not remove the sources of conflict between Russia and Kazakhstan, it significantly influenced the ways to which Moscow handled such conflict where it was relevant.

With the specific effects of both variables now established, I can supplement the original model presented in this chapter with an extension taking into account, at the moment of temporary relative hold-up advantage, whether the asset in dispute is owned by the state or a private company. Using the model, I can trace the process of each dispute covered in this chapter. In the Russia-Belarus relationship, Belarus had a temporary relative advantage in its mutual hold-up with Russia, since Russia was developing a capability to diversify away from
Belarusian transit. Since Beltransgaz, an integral piece of the country’s socialized economy, was state-owned, this contention led to multiple episodes of conflict. Next, in the Russia-Kazakhstan relationship, Russia had a temporary relative advantage in its mutual hold-up with Kazakhstan, as the latter state had not fully developed its supply and transit capabilities. In contention over Kumkol, the asset’s private ownership allowed Russia and Kazakhstan to cooperate over redistribution of control rights. But in negotiations over the CPC, where both KazMunaiGas and Transneft had partial ownership, attempts by one state to redistribute control rights directly threatened the other, leading to conflict.

Figure 2: Complex Model

<table>
<thead>
<tr>
<th>Temporary Relative Advantage in Mutual Hold-Up</th>
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</thead>
<tbody>
<tr>
<td>Privately-Owned Target Asset</td>
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<tr>
<td>State-Owned Target Asset</td>
</tr>
<tr>
<td>Cooperative Conflict Resolution</td>
</tr>
<tr>
<td>Coercive Conflict Resolution</td>
</tr>
</tbody>
</table>

With this more complex model, we can better explain variation both within and across the country-cases of Belarus and Kazakhstan. This variation, however, does not cover the extent of potential values for the two independent variables. In terms of the hold-up variable, the 2006 Kumkol settlement resolved an indirect threat to Russian use rights while the 2005 CPC pipeline disruption, as well as the 2007 and 2010 Belarusian shutoffs, responded to a direct threat. And in terms of the institutional variable, Russia had high state-market access in Kazakhstan, but low access in Belarus. Based on these configurations, neither Belarus nor Kazakhstan provides a case where Russia faces an indirect threat to use rights in an environment with low institutional access. As such, the cases cannot prove causality for both variables. If cases in this unexplored
quadrant result in cooperation, then variation in outcomes will correspond solely with difference across the hold-up variable. The presence of conflictual outcomes in this quadrant, however, would strengthen the argument that both variables have a causal effect. Table 2 summarizes the distribution of examined conflict and cooperation in the universe of potential variability.

Table 2: Examined Variation

<table>
<thead>
<tr>
<th></th>
<th>Indirect Threat to Russian Use Rights</th>
<th>Direct Threat to Russian Use Rights</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Target Institutional Access</td>
<td>$KAZ_{2006}$</td>
<td>$KAZ_{2005}$</td>
</tr>
<tr>
<td>Low Target Institutional Access</td>
<td>$BLR_{2007}, BLR_{2010}$</td>
<td></td>
</tr>
</tbody>
</table>

legend: *cooperative resolution, conflictual resolution* of energy-related dispute

Analysis of different cases is therefore necessary to fully establish the independent effects of both causal variables in the model. In the next chapter, I present cases of energy-related conflict and cooperation in the Baltic States to fill in this theoretical gap and further assess the conclusions from studying Belarus and Kazakhstan. The unique benefit of these additional cases is their relatively similar positions along the hydrocarbon supply chain. As Kazakhstan developed upstream capabilities throughout the period of study, and Belarus maintained its role as a midstream transit state, comparing the two may have introduced complications to the structural variable unaddressed in this chapter. The Baltic States, however, are all transit states, occupying similar positions in the energy supply chain. If analysis of the Baltic States reveals casual links that mirror the findings from Belarus and Kazakhstan, it would strengthen confidence in this chapter’s conclusions.
Chapter 4: Latvia and Lithuania

Introduction

In the previous chapter, analysis of Russian bilateral energy relations with Belarus and Kazakhstan revealed causal mechanisms by which the structural conditions of the hold-up problem and institutional arrangements of public-private asset ownership influenced conflict and cooperation. What remains unclear, however, is the extent to which these two variables interact in shaping the outcomes of sovereignty negotiations over energy infrastructure. This chapter investigates this question through the case studies of Russian relations with Latvia and Lithuania between 2000 and 2011. First, analysis of Russia’s 2003 transition away from pipeline transit through Latvia in anticipation of the latter country’s EU membership reveals that the case featured low levels of both institutional access and hold-up threat intensity, filling in a key conceptual gap of the previous chapter. And second, process-tracing the change in the Russian-Lithuanian bilateral relationship from privatization in the early 2000s to the 2006 pipeline shutoff shows how a shift in both causal variables over time influenced levels of conflict and cooperation between the countries. Overall, this chapter argues that the structural and institutional variables have independent, compounding effects on conflict and cooperation in post-Soviet energy diplomacy. Table 1 summarizes these cases alongside those from Chapter 3.

Table 1: Examined Variation in the Independent Variables

<table>
<thead>
<tr>
<th></th>
<th>Indirect Threat to Russian Use Rights</th>
<th>Direct Threat to Russian Use Rights</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Target Institutional Access</td>
<td>KAZ\textsubscript{2006}, LTU\textsubscript{2004}</td>
<td>KAZ\textsubscript{2005}</td>
</tr>
<tr>
<td>Low Target Institutional Access</td>
<td>LVA\textsubscript{2003}</td>
<td>BLR\textsubscript{2007}, BLR\textsubscript{2010}, LTU\textsubscript{2006}</td>
</tr>
</tbody>
</table>
Another theoretical insight of this chapter, though, is that the threat level of a relationally-specific asset can change over time. For the cases in Chapter 3, although Kazakhstan imposed both direct and indirect threats to Russian use rights, this was because two different assets were the subjects of negotiation. As Russia’s infrastructural network for Europe-bound energy transit changes, however, the same asset can take on different values for threatening use rights at different points in time. For example, as this chapter will show, Lithuania’s transit company Mazeikiu Nafta posed an indirect threat to transit in the early 2000s, but developments in Ukraine and Belarus gave the country greater leverage over both Europe and Kaliningrad-bound energy transit by 2006. This observed change in threat level for Russian transit rights contributed to conflict in the bilateral relationship.

This chapter extends this analysis of the effects of variation in both hold-up threat level and institutional market access on the intensity of conflict. While the previous investigations of Belarus and Kazakhstan saw the outcome of interest as a choice between conflict and cooperation, the focus here on Latvia and Lithuania will explore variation in the intensity of conflict. While cooperation is still the resolution of potential disputes through non-coercive means, conflict ranges in intensity. In the observed world, conflict can range from trade sanctions to military invasion, but in the cases related to Eurasian energy security the primary tools are pipeline shutoffs and sudden price increases. A qualitative assessment of specific incidents of pipeline or price coercion would take into account the harms both countries are willing to sustain before their resolution. For this analysis of Russian action, pipeline shutoffs where Russia sacrifices national or regional energy transit for a significant period would therefore indicate high intensity, whereas shutoffs where Russia can merely switch to another transit route at low cost would indicate low intensity.
This extended variation in outcomes allows more nuanced analysis of the combined effects of the structural and institutional variables. Where indirect threats to Russian use rights meet high levels of institutional access, such as in Russian-Kazakh negotiations over Kumkol, the result is cooperation. With direct threats to Russian use and low levels of institutional access, as seen in Russian-Belarusian negotiations over Beltransgaz, the outcome is high-intensity conflict. Where high institutional access meets a direct threat, such as between Russia and Kazakhstan over the Caspian Pipeline Consortium, or when an indirect threat exists with low institutional access, as the Latvian case will show, the result is low-intensity conflict. Table 2 summarizes the variation in configurations of the causal and response variables. This chapter will place cases from Russia’s relationships with Latvia and Lithuania on this diagram, confirming thereby confirming its causal relationships.

Table 2: Effects of Variation

<table>
<thead>
<tr>
<th>High Target Institutional Access</th>
<th>Indirect Threat to Russian Use Rights</th>
<th>Cooperation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Target Institutional Access</td>
<td>Direct Threat to Russian Use Rights</td>
<td>Low-Intensity Conflict</td>
</tr>
<tr>
<td></td>
<td>Low-Intensity Conflict</td>
<td>High-Intensity Conflict</td>
</tr>
</tbody>
</table>

Finally, this chapter’s analysis will further refine the causal model, adapting its steps to account for the variation present in the Baltic cases. At the structural level, the cases will establish that perceived temporary relative advantages on either side of the mutual hold-up can lead to conflict. Then, for the institutional level, the cases will expand state or private ownership to mean dominance in decision-making over the asset’s future ownership, at either the corporate or legal level. These changes allow the model to explain Russia's focus on limited time horizons despite being upstream of the Baltic States, as well as how economic liberalization can be
harmful for developing institutional access when such liberalization has associations with anti-Russian foreign policy. Figure 1 expresses this new language for the complex causal model.

Figure 1: Revised Causal Model

<table>
<thead>
<tr>
<th>Perceived Temporary Advantage in Mutual Hold-Up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private Determination of Asset Control</td>
</tr>
<tr>
<td>State Determination of Asset Control</td>
</tr>
<tr>
<td>Cooperative Conflict Resolution</td>
</tr>
<tr>
<td>Conflictual Conflict Resolution</td>
</tr>
</tbody>
</table>

This rest of this chapter will introduce the Baltic region and variation of causal variables in the Latvian and Lithuanian cases, trace the process of Russian negotiations with these two countries over ownership of energy infrastructure, and analyze observed causal relationships in the context of this paper’s focus on structural and institutional sources of conflict and cooperation in post-Soviet energy diplomacy.

**Regional Background**

Latvia, and Lithuania, known as along with Estonia as the Baltic States, lie on the western coast of the Baltic Sea below the Gulf of Finland. Latvia shares its eastern borders with Russia, and Lithuania borders the Russian province of Kaliningrad to its southwest. These states first tasted independence after the 1918 Treaty of Brest-Litovsk, where the young Soviet Union ceded the Russian Empire’s Baltic territories to Germany. Following WWI, however, the Baltic States managed Russian, German, and Polish regional ambitions to maintain sovereignty until the 1939 Molotov-Ribbentrop Pact. Resistance against both Russian rule and German occupation deeply divided the polities as Soviet Republics, and by 1987 the Singing Revolution began the
process of their formal independence.\textsuperscript{1} In 1990 and 1992, however, Russia attempted to coerce the Baltic States over the terms of independence and stationing of Russian military units by cutting off the flow of oil and gas. Although these attempts were not successful in changing policy for the newly-sovereign states, they shaped from early on perceptions of the energy relationship between Russia and its Baltic neighbors.\textsuperscript{2} From then until 2000, the threat of further pipeline shutoffs influenced attempts to mitigate the risk of conflict with Russia.

During the period of study, Latvia and Lithuania diverged in terms of their bilateral relationships with Russia. In the early 2000s, Latvia and Russia saw low-intensity conflict, with an unexpected pipeline shutdown providing the impetus for Russia to switch away from transit through the country. At the same time, Russia and Lithuania had a cooperative relationship, successfully negotiating the privatization of energy transit monopoly Mazeikiu Nafta. Later in the period, however, as Lithuania entered further rounds of privatization at the behest of the European Union, Russia instigated a pipeline shutoff to protect its transit interests. Since both countries were on the same path of entry in the EU and NATO, this variation in outcomes requires further analysis beyond change in the foreign policy alignments of these Baltic Countries. The following subsections explain the differences between Latvia and Lithuania in bilateral hold-up situation and economic institutions which contributed to these divergent paths.

\textit{Hold-Up Situations}

Complicating Baltic attempts to manage the threat of Russian energy coercion, but simplifying this portion of analysis, is the countries’ similar, downstream positions in the hydrocarbon supply chain. In the previous chapter, conflict arose between supply countries and

\textsuperscript{1} Skachkov 2015, 121
\textsuperscript{2} Hamilton 2008, 121
transit countries, with change in the transit country’s hold-up position creating contentious international situations. Additionally, in one case Russia was primarily a supply country for Belarusian transit, and was for the other both a supply and transit country for Kazakh petroleum. For the Baltic cases, however, Russia acts uniformly as a supply country for local transit and consumption. In the early 2000s Russia accounted for 100 percent of Baltic gas and 90 percent of Baltic oil, and Russia state monopolies held a 35 percent stake in each country’s national energy company.³ Both Estonia and Latvia operated as transit countries for Russian petroleum exports to Central and Western Europe, with transit fees amounting to at least 15 percent of Latvia’s annual GDP.⁴ Latvia’s ice-free, deep-water port of Ventspils also handled 13 percent of total Russian oil exports, transporting them by sea, but the government refrained from investing in port expansion out of fear that Russia might switch to an alternate seaborne route west.⁵ As Russia did take steps to reduce its reliance on the Ventspils port for hydrocarbon transit during the period of study, the dynamics of this transition became a source of contention with Latvia.

While Latvia is first and foremost a transit country for Russian petroleum, Lithuania has a more complicated energy relationship with the Russian Federation. Lithuania’s sizable energy and chemical sectors do rely on Gazprom for natural gas and Transneft’s Minskas-Vilnius Pipeline for oil,⁶ but the country also re-exports refined oil to Russia and supplies the province of Kaliningrad. The Kaliningrad region is Russia’s non-contiguous province located on the Baltic Sea between Lithuania and Poland, and hosts a major seaport city. Russian ownership of Kaliningrad dates to the post-World War II settlement, and Moscow maintains interest in the region for its trade capacity and manufacturing centers. In the event of energy shortage in

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³ Ibid, 120
⁴ Simindei 2002, 71
⁵ Ibid, 63
⁶ Tarvydas and Gatautis 2006, 97
Kaliningrad, Russia could not reroute oil and gas supplies to the region without Lithuanian cooperation. Lithuanian leverage in the mutual hold-up, then, derives from its particular ability to withhold energy supply from this region, which lies on the Baltic Sea between

Not only did Kaliningrad consume Russian-refined hydrocarbons sent through Lithuania, but the refinery and nuclear power plant in Mazeikiai, Lithuania also supplied the Russian enclave with petroleum throughout the period. From early on, then, Lithuania possessed a unique source of leverage to counter attempts at Russian energy coercion. When Russia attempted to shut off energy transit to Lithuania in 1990, the country responded by shutting off its own transit to Kaliningrad. When the Kaliningrad economy began to suffer, Russia backed away from its demands and resumed pipeline flow. Although Lithuania attempted to diversify its energy supply through trade with Poland and construction of LNG storage in 2007, no significant change in the country’s energy infrastructure occurred until 2014. During the period of study, then, Lithuania and Russia’s attempts to change the terms of mutual reliance became a source of contention between the neighbor-states.

The mutual hold-up situations between Russia and the Baltic States were by no means stable throughout the period. Since Russia was aware of its dependencies on Baltic energy infrastructure for sustaining government revenue and economic activity, the Putin administration focused on developing mechanisms for bypassing Latvia and Lithuania. Beginning in 2000, Russia focused on two energy initiatives bypassing the Baltic States: developing domestic port capacity and constructing an alternate pipeline system. By developing the Russian Baltic ports of Ust-Luga for natural gas and Primorsk for oil, Moscow hoped by 2015 to rival the scale

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7 Mišík and Prachárová 2016, 586
8 Ibid, 589
9 Hamilton 2008, 122
10 Crandall 2014, 151
economies already present in Latvia. Until these projects became viable, Russia diversified its Baltic transit in 1998 by shipping to Gdansk, Poland, despite the Latvian route being more cost-effective. Additionally, Russia planned the construction of undersea pipelines bypassing the Baltic States. In 1999, Russia piloted the Northern Dimension, a joint venture with Finland which would bypass Latvia. Latvia, Lithuania, and Poland countered the Northern Dimension by proposing the overland Amber Pipeline, but Russia ultimately settled on the undersea Nord Stream pipeline, in association with Finland and Germany. While Amber was safer, cheaper, and less technologically complex than Nord Stream, Russia preferred the later project as its undersea nature both mitigated the risk of shutoffs and gave the Baltic States no legal standing to hinder its construction. As official construction of Nord Stream did not begin until 2010, Baltic resistance to the project became yet another source of regional contention.

For the period of study, then, Latvia and Lithuania varied in the level of threat they individually posed to Russian transit through the Baltic region. The Russian-Latvian bilateral relationship featured an indirect threat to Russian transit, as Russia could reroute energy supplies through other nearby countries, such as Estonia, Lithuania, and Finland. While the Lithuanian economy relied extensively on Russian energy transit, Russia could largely afford to sacrifice this partnership. Lithuania, on the other hand, could pose either a direct or indirect threat to Russian transit, as it handled energy supplies for both Western Europe and Kaliningrad. Because Kaliningrad shares a border with Belarus, Russia could have relied on Minsk to supply the exclave’s energy needs if Lithuania threatened to restrict transit. As Chapter 3 noted, however, the Russian-Belarusian bilateral relationship deteriorated after 2005, giving Lithuania an even

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11 Ibid, 154
12 Simindei 2002, 64
13 Ibid, 65
14 Crandall 2014, 152
15 Lidskog and Soneryd 2011, 114
stronger position in its ability to strangle Kaliningrad’s economy. These structural differences between the Baltic cases contributed to variation in outcomes of energy diplomacy.

*State-Market Relations*

Another source of variation between Latvia and Lithuania is Russia’s level of economic institutional access within each country. As opposed to Chapter 3, which featured a key distinction between Kazakhstan’s liberalized energy sector and Belarus’s socialized economy, both Baltic States feature liberalized economies, with state energy monopolies Latvijas Gaze in Latvia and Lietuvos Dujos in Lithuania undergoing various rounds of privatization after 2000. But much like Kazakhstan, where privatization did not guarantee Russian companies would win out in international competition against Western and Chinese multinationals, liberalized Baltic economies forced Russia to compete with other potential owners of energy infrastructure. In these cases, then, personalized corruption networks take on a more important role. In Kazakhstan, Lukoil acted as an informal conduit for Russian interests in the Kumkol case; likewise, Russia relied on similar corporate entities to satisfy their Baltic interests. Profits from arbitrage at the formal level, and corruption on the informal level, created “rents of energy dependency”\(^{16}\) facilitating cooperative relationships on the individual level to dampen state-level contention. The arrangement of these institutions, as the next section of this chapter will show, acted as a significant force in favor of cooperation.

In Latvia, with both relatively open markets and an underground hub for money laundering,\(^ {17}\) Russia had many opportunities to secure its energy interests throughout the 1990s. The biggest player in state-market relations for the country, just like in Kazakhstan, was Lukoil,

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\(^{16}\) Balmaceda 2008, 18
\(^{17}\) Pomerantsev 39, 2015
which had a large stake in Latvijas Gaze. But in 1999, when Lukoil refused to invest in Latvia’s Western Pipeline System alternative to Russia’s Northern Dimension transit network, Latvijas Gaze sold the company’s share in the Mazeikiai refinery to Williams, an American multinational.\textsuperscript{18} After a series of Russian pipeline shutoffs, Williams sold its stake in Mazeikiai to Yukos, a Russian company with leadership at odds with the incoming Putin administration.\textsuperscript{19} Without the moderating presence of Lukoil, then, the bilateral relationship between Russia and Latvia featured low levels of institutional access throughout the period of study.

In Lithuania, on the other hand, Russia successfully developed economic links through informal, personalized economic arrangements. By 2001, Gazprom had developed contacts with most major Latvian energy players by supporting ethnically-Russian entrepreneurs and making use of family networks crossing national borders.\textsuperscript{20} During the 1990s, small arbitrage companies associated with Russian firm Itera dominated Lithuania’s energy market, but these declined after 2001 as a smaller cadre of Kremlin-connected corporations obtained their assets.\textsuperscript{21} By simplifying the system of intermediaries between Russia and Lithuania, the two countries formed a more reliable mechanism to moderate energy disputes. Throughout the 2000s, however, Lithuanian energy monopoly Lietuvos Dujos underwent several rounds of EU-mandated privatization, which disturbed the country’s personalized connections with Russian firms. By 2007, Lithuania began to consider alternatives to independent LNG processing, which required government subsidies and assurances that the country could not provide at the time.\textsuperscript{22} Instead, Lithuania began looking towards EU member-states for investment in its energy sector. Once the

\textsuperscript{18} Simindei 2002, 66
\textsuperscript{19} Hamilton 2008, 121
\textsuperscript{20} Balmaceda 2008, 21
\textsuperscript{21} Ibid, 20
\textsuperscript{22} Tarvydas and Gatautis 2006, 99
country cut ties with Russia, it sought to use privatization and energy monopoly restructuring as a tool to further reduce Russian influence over Lithuanian energy infrastructure.

While these two Baltic countries may not have differed along formal measures of economic liberalization, it is the informal arena of economic institutions where variation appears. For the period of study, the Latvian-Russian relationship featured consistently low levels of institutional access, and the Lithuanian-Russian relationship began with high levels for this variable but shifted down over time. Although this paper does not explore the specific cause of this change, what is important is its effect on the ability of Lithuanian economic institutions to moderate Russian demands over the mutual hold-up situation. The next section of this paper, then, will trace the process by which these structural and institutional variables interacted to determine levels of Russian conflict and cooperation with Latvia and Lithuania.

**Comparative Case-Study Analysis: the Baltic Cases**

As stated in this chapter’s introduction, the theoretical purpose of this chapter’s case study analysis is twofold. First, the Latvian case captures values for both the structural and institutional independent variables which did not correspond in any of the cases of Chapter 3. Plotting the outcome of Russian-Latvian energy diplomacy will serve as evidence for or against the independent effect of each causal variable. If Latvia, which features low levels of both hold-up intensity and institutional access, features a case of low-intensity conflict, the case would strengthen this paper’s main contentions. But if Latvia sees the outcome of either cooperation or high-intensity conflict, the case would challenge the expectations of this thesis. In the following subsection, this chapter argues that the 2003 Russian-Latvian pipeline shutoff is an example of low-intensity conflict, confirming theoretical expectations.
And second, the Lithuanian case captures variation across time in both the structural and independent variables. This case offers a unique opportunity to trace the process of a single country moving across the causal diagram from low hold-up threat intensity and high institutional access to high hold-up threat intensity and low institutional access. By holding the country identity constant throughout the period of study, the analysis of Russian-Lithuanian energy diplomacy can more clearly investigate the specific effects of variation in each causal variable. Analysis of cooperative negotiations culminating in 2004 involving Russian firm Dujotekana, as well as conflictual pipeline shutoffs over ownership of the Mazeikiu Nafta refinery in 2006, shows that change in both variables contributed to the shift from cooperation to conflict in the bilateral relationship.

Table 3: Examined Variation in Baltic Cases

<table>
<thead>
<tr>
<th>High Target Institutional Access</th>
<th>Indirect Threat to Russian Use Rights</th>
<th>Direct Threat to Russian Use Rights</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTU</td>
<td>LTU2004</td>
<td>LTU2006</td>
</tr>
<tr>
<td>LVA</td>
<td>LVA2003</td>
<td></td>
</tr>
</tbody>
</table>

Key to both country-cases, however, is Russia’s perceived limited time horizon for action in anticipation of Baltic accession to the European Union. Membership in the EU’s common market offered Latvia and Lithuania a path towards long-term protection from Russian economic coercion, as economic growth from European integration would diminish the role of energy transit in generating Baltic government revenue and economic growth. At the same time, stronger ties with Western markets would decrease the willingness of individual Lithuanian public or private entities to enter partnerships with Russian over European partners. While Chapter 3 introduced the importance of limited time horizons for determining the actions of
downstream countries, the Baltic cases complicate the role of this factor. Because of EU accession, Russia, the upstream country, perceived a limited time horizon for successful negotiation with its Baltic neighbors. After discussing each case, this chapter will argue that perceptions of limited time horizons on either side of a bilateral relationship along the hydrocarbon supply chain can induce conflict or cooperation.

Latvia, 2003

In January 2003, Russia began to decrease petroleum shipments to Latvia via the Polotsk-Ventspils Pipeline. From 2003 to 2007, transit to Lithuania declined from 21 million tons per year to nothing.\(^\text{23}\) Both countries felt the effects of the shutoff immediately, with Latvia losing $30 million in transit fees for only the first few weeks, and Russia diverting one billion dollars worth of petroleum to alternate export routes.\(^\text{24}\) The effective petroleum blockade ended up costing 2.5 percent of Latvian GDP, yearly.\(^\text{25}\) At the time, the news media reported two potential explanations for the abrupt policy shift. First, Transneft’s official explanation was that there was not enough petroleum transit for both the Primorsk port, which opened in 2001, and Ventspils.\(^\text{26}\) And secondly, Russia could have also sought to capture the 39 percent stake in Ventspils Nafta, the Latvian company operating the port, which was for sale at the time.\(^\text{27}\) Both of these explanations were viable goals for Russian energy diplomacy, as Russia’s superior hold-up position gave it the ability to exact concessions from its neighbor. If Russia could not obtain the minority stake in Ventspils Nafta through coercion, it was comfortable indefinitely suspending energy transit through Latvia.

\(^{23}\) Crandall 2014, 150
\(^{26}\) Tavernise, “Latvia’s Oil Routes”
\(^{27}\) “Self-Strangulation,” 46
For this case, both the hold-up situation and state-market relations were clearly defined for policymakers at the time. The alternate ports of Primorsk on the Gulf of Finland and Ust-Luga in the southern Baltic went online in late 2001, giving Russia the ability to bypass Ventspils starting in the 2002 calendar year. Unofficially, Latvian politicians threatened to impose tariffs on Russian petroleum if Moscow began to favor the Primorsk port, but they also knew such tariffs would probably not have an impact on Russian behavior. In this case, then, Russia had a distinct, recognized advantage over Latvia in the hold-up situation. Next, in terms of state-market relations, Latvia indicated a desire to sell a minority share in Ventspils Nafta in its 2002 round of privatization, but denied bids from Transneft and Lukoil in anticipation of developing close ties with European multinationals in the EU common market. Additionally, after the shutoff began, Transneft refused the requests of Russian private companies to resume petroleum flows to Ventspils. As the Dutch energy company Vitol ended up acquiring a majority share of Ventspils Nafta in 2006, it stands to reason that Moscow began the transition away from Ventspils once it was certain that neither state-run nor private Russian companies would be able to secure partial ownership.

Before comparing this case to 2006 Lithuania, it is important to clarify the role of each variable in explaining the switch from Ventspils. Beginning in 2002 Russia had an advantageous hold-up position; although there were transition costs associated with substituting towards Primorsk and Ust-Luga, Moscow was comfortable denying private requests to resume flows to Ventspils. The question, then, is why Russia denied the requests of these private companies, which could have continued to foster economic institutions conducive to mitigating conflict.

28 CDRP 53(52) 2001, 18
29 Simindei 2002, 69
30 Ciziunas 2008, 301
31 CDRP 55(21) 2003, 11
Latvia’s anticipated membership in the EU and NATO helps make sense of this decision. If Russia could not secure a reliable stake in Ventspils before Latvia became integrated in ostensibly anti-Russian institutions, Moscow could not risk having its oil transit, whether state-run or private, subject to the whim of Western politics. In this case, then, Russia saw a window of opportunity for itself to shift away from Ventspils at minimal cost relative to future potential shifts, and acted once it could not guarantee the continuation of economic institutions which could facilitate cooperation.

To summarize the Latvian case, low values for both threat to Russian transit and informal institutional access led to low-intensity conflict between the two countries. Russia, seeing that Latvia’s upcoming EU membership could pose a threat to its use rights for Western exports, switched its transit away from the country when it could not secure control rights over Ventspils Nafta. While the economies of both countries adapted to this long-term shutoff of energy transit, it was much more costly for Latvia to do so than Russia. With this arrangement of variables, Russian-Latvian energy diplomacy provides useful information for comparative analysis.

**Lithuania, 2001-4**

In the period surrounding the Latvian case, Lithuania was also restructuring its transit monopoly Lietuvos Dujos. Contemporary analysis of the Baltic region noticed that while Russia appeared to be punishing Latvia for its privatization, oil continued to flow to Lithuania. At the time, Western observers speculated that the differentiated response may have been due to Yukos’s partial ownership of the Kaunas refinery. The Kaunas refinery, however, was not the asset undergoing privatization, and the presence of Yukos could have given Moscow an upper hand in coercive negotiation. Additionally, as previously mentioned, the privatization process

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32 “Self-Strangulation,” 46
removed Lithuanian state control over transit, preventing the country from independently restricting energy supplies to Kaliningrad. With the Primorsk and Ust-Luga ports in operation, Yukos still commanding a stake in the Kaunas refinery, Lithuania ceding state control over transit, the period before Baltic accession to the EU and NATO in 2004 would have been a relatively advantageous time for Russia to attempt coercion. Instead, by March 2004 Gazprom was able to obtain a 34 percent stake in Lietuvos Dujos without resorting to coercive measures. While Lithuanian policymakers may simply have been more receptive to the benefits of continued cooperation with Russia, key differences in state-market relations help explain this cooperative outcome.

Key to this case is the semi-formal network of intermediary companies navigating Russian-Lithuanian transit. In December 2001, immediately after the CEO of Gazprom visited Lithuania, Russia canceled its contract with Stella Vitae, the company that had managed transit to the country in the 1990s, and began transporting oil to Lithuania through Dujotekana, an entirely new entity. By 2002, Dujotekana was supplying 40.3 percent of Lithuania’s oil, and in 2003 the company won the exclusive right to transport petroleum within the country alongside Lietuvos Dujos. Under the table, however, Dujotekana bought the support of prominent Lithuanian politicians, despite their public attitudes in favor of EU integration. This corruption, potentially similar to that of Lukoil in Kazakhstan, allowed Russian and Lithuanian policymakers to come to a cooperative resolution of the country’s privatization process. It is telling, then, that when Lithuania decided to undergo further privatization in 2006, the EU-led process resulted in Russian coercion and economic losses for both countries. In the latter case, EU integration disrupted the informal networks that fostered cooperation between the countries.

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33 Balmaceda 2008, 21
34 Ibid, 23
Lithuania’s experience from 2001-4, then, provides additional evidence in favor of this paper’s main hypothesis. The case features a successful incident of state-market relations facilitating cooperation in contentious energy diplomacy brought about by perceived temporary advantage in the mutual hold-up. Both structural and institutional variables are at play, with Russia’s concerns over Lithuania taking a path of economic integration with the EU similar to that of Latvia assuaged by credible commitments to cooperation through Dujotekana. The next subsection explores how both variables changed throughout the period of study, leading to very different results of Russian-Lithuanian energy diplomacy.

**Lithuania, 2006**

In late July 2006, a pipeline break disrupted petroleum transit of Russian oil to the Lithuania’s Kaunas refinery, operated by Mazeikiu Nafta. When Russia refused to provide maintenance for the broken Minsk-Vilnius pipeline, petroleum shipments instead went to Primorsk, denying key Lithuanian revenues from transit and re-export of refined oil.\(^{35}\) In mid-August, Lithuania retaliated by threatening to shut off rail transit to Kaliningrad, putting the region’s energy supply at risk.\(^{36}\) Russia promised that it would be able to sufficiently transport needed materials to Kaliningrad via ferry, but these shipments quickly proved inadequate for the region’s needs.\(^{37}\) As opposed to the Latvian shutoff, after which regional petroleum providers adapted and were able to avoid use of the Ventspils port, in this case Russia ended up repairing the broken pipeline and resuming transit. By 2009, Russia had even stepped up transit through

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\(^{35}\) Crandall 2014, 150  
\(^{37}\) CDRP 58(35) 2006, 17
Kaunas to Kaliningrad, strengthening Lithuania’s transit position.\textsuperscript{38} What makes this case interesting, however, is that there was immediate suspicion that the pipeline rupture and subsequent shutoff of oil flow was an intentional coercive act by Russia. Similar to the Latvian case, the shutoff occurred after Lithuania refused Rosneft’s offer to buy a commanding share in Mazeikiu Nafta and instead sold the refinery to PK Orlen, a Polish company.\textsuperscript{39} With Lithuania transferring ownership to a member of the EU and NATO instead of Russia, this change in state-market relations mirrors the shift that led to coercion against Latvia about three years prior.

This change over time in the privatization of Lithuania’s energy sector resulted in low institutional access for Russia, but only after the country was a member of the European Union. Baltic entry to the EU did not lead to immediate competition or diversification within the regional energy sector. By the end of 2004 Gazprom still retained a majority stake in the Kaunas refinery,\textsuperscript{40} and the personalized network involving Dujotekana remained stable. In 2006, however, Lithuania chose to undergo a third round of EU-endorsed privatizations,\textsuperscript{41} and subsequent restructuring of Mazeikiu Nafta threatened Russian control rights over the company. When the stake in Mazeikiu Nafta went up for sale, there were three main entities vying for ownership: Kazakhstan’s KazMunaiGas, Russia’s Rosneft, and Poland’s PK Orlen. The entry of these new, foreign competitors for Lithuanian energy transit directly threatened Russian use rights through the country, leading to conflict.

Soon after KazMunaiGas put out its bid, Transneft cut a 10-year contract supplying oil from Kazakhstan to Lithuania for refinement and shipment to Europe. This action pushed

\textsuperscript{38} Míšík and Prachárová 2016, 588  
\textsuperscript{39} CDRP 58(35) 2006, 16  
\textsuperscript{40} Judy Dempsey, “Europe Worries over Russian Gas Giant’s Influence,” \textit{New York Times}, Oct 5, 2004  
\textsuperscript{41} Míšík and Prachárová 2016, 580
Kazakhstan out of the running for ownership of the Kaunas plant.42 When PK Orlen later outbid Rosneft, the sales contract with Lithuania had an escape clause indicating that if the refinery’s market value dropped dramatically, the Polish company could void the agreement and terminate the acquisition.43 The petroleum shutoff following this transaction could have been a Russian attempt to force PK Orlen to follow the terms of the escape clause and allow Rosneft to acquire ownership. While the original pipeline disruption may have been an accident, competition with a Polish firm over Lithuania’s pipeline transit provided motivation for Russia to not provide immediate repairs, thereby coercing Lithuania through deprivation of energy supplies.

This act of coercion led to high-intensity energy conflict between Russia and Lithuania, however, because Lithuania posed a direct threat to Russian oil and gas supply in Kaliningrad in the mutual hold-up situation. Even though Russia’s increased export capabilities with its ports in Primorsk and Ust-Luga allowed it to bypass Lithuania when delivering Europe-bound energy, these infrastructural improvements had no bearing for Kaliningrad’s oil and gas needs. Throughout the conflict, both countries had to divert energy transit to less profitable routes and modes of transport, with Russia relying on ferries and Lithuania on tankers instead of blocked pipeline and rail transit.44 Similar to earlier incidents of Russian-Lithuanian pipeline coercion in the 1990s, these direct harms to Kaliningrad prevented Russia from successfully coercing its downstream transit partner. The remaining question, then, is why Russia, with full ability to anticipate Lithuania’s strong position in the mutual hold-up, engaged in coercion at this time.

An explanation for what appears at first glance to be poor decision-making on Russia’s part comes from analysis of Russia’s temporary relative advantages of its mutual hold-up positions. In both 2003 Latvia and 2006 Lithuania, Russia predicted that these countries would

42 Ciziunas 2008, 300
43 Kramer, “Russia Plays the Oil Game”
44 CDRP 58(35) 2006, 17
only continue to integrate their economies into the European Union, further distancing their interests from those of Russia. Once the two countries eventually developed independent energy supply capabilities, then Russia would be in an even worse position in future cases of energy diplomacy. With the future of bilateral relations looking bleak, Russia took advantage of opportunities to press for stakes in Latvian and Lithuanian energy companies during rounds of privatization. These changes in the public-private arrangement of Baltic energy holdings, then, served as a proximate cause for Russian action motivated by limited time horizons for Moscow’s hold-up advantages. Putin could either seize the moment, reshaping bilateral relationships with whatever tools he possessed, or wait until those tools were irretrievably lost.

From these three cases of energy diplomacy between Russia and the Baltic States of Latvia and Lithuania, it is clear that both the structural conditions of the mutual hold-up and institutional conditions of state-market relations independently influenced the outcomes of conflict and cooperation. These cases also added valuable levels of nuance to each of the three variables, showing that limited time horizons for hold-up advantage can apply to upstream as well as downstream states, that economic liberalization can reduce institutional access, and that conflict varies in intensity based on the particular confluence of the independent variables. Table 4 summarizes these relationships in the cases of both this and the previous chapter.

Table 4: Examined Causal Patterns of Russian Energy Diplomacy

<table>
<thead>
<tr>
<th>Secondary</th>
<th>Indirect Threat to Russian Use Rights</th>
<th>Direct Threat to Russian Use Rights</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Target Institutional Access</td>
<td>KAZ\textsubscript{2006}, LTU\textsubscript{2004}</td>
<td>KAZ\textsubscript{2005}</td>
</tr>
<tr>
<td>Low Target Institutional Access</td>
<td>LVA\textsubscript{2003}</td>
<td>BLR\textsubscript{2007}, BLR\textsubscript{2010}, LTU\textsubscript{2006}</td>
</tr>
</tbody>
</table>

Legend: cooperation, low-intensity conflict, high-intensity conflict
Conclusion

By analyzing three cases of contentious energy diplomacy between Russia and the Baltic States of Latvia and Lithuania, this chapter explored the independent effects of both structural and institutional variables on the outcomes of conflict and cooperation. These cases each revealed important considerations for theoretical analysis. Russian coercive diplomacy with Latvia in 2003 provided a case of indirect threat to Russian transit and low institutional access leading to low-intensity conflict, confirming the independent effects of each causal variable on the outcome of interest. Then, analysis of Lithuania in the early 2000s confirmed that informal, personalized corruption networks played a significant role in developing economic institutional access and facilitating cooperative outcomes. Next, process-tracing the change in structural and institutional variables for Lithuania by 2006 clarified the role of temporary relative advantage in the hold-up situation, as well as the public-private arrangement of decision-making power over energy infrastructure. Finally, comparing the Latvian and Lithuanian cases of pipeline conflict illustrated a differential in the intensity of conflict resulting from their respective arrangements of the causal variables. In total, these cases provided invaluable insights for the study of post-Soviet energy diplomacy and the formation of this paper’s causal model.

Figure 1: Revised Causal Model

<table>
<thead>
<tr>
<th>Perceived Temporary Advantage in Mutual Hold-Up</th>
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<tbody>
<tr>
<td>Access to Private Asset Control</td>
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<tr>
<td>Cooperative Conflict Resolution</td>
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</table>
Neither the revised causal model nor the diagram of associated variables, however, can assess the relative impact of each causal variable on energy diplomacy outcomes. Although the case-study analyses of the past two chapters have provided evidence supporting the existence of causal relationships, this qualitative analysis cannot determine how strong or important these relationships are in the context of competing explanations for Russian action. So far, the core arguments presented have largely focused on economic considerations for state activity. All political decisions, from reorganizing nationalized industries to joining international institutions, have been relevant only as they related to economic security. Although this simplification is necessary for the construction of a causal model, it may overstate the significance of the chosen causal variables, and ignore other motivations for Russian action, such as rewarding or punishing countries for ideological or great power alignment. While testing the proposed model against alternate potential causal processes is beyond the scope of this analysis, it is important to argue that these other explanations are at least not mutually exclusive with this paper’s contentions.

The next chapter will attempt to resolve this analytical issue through a quantitative analysis of Gazprom’s natural gas prices to former Soviet states during the period of study. As changing export prices is a significant tool of Russian energy diplomacy that qualitative accounts of bilateral relationships cannot thoroughly analyze, assessing them independently will show if similar causal relationships apply to both tools. Through robust panel regression analysis, Chapter 5 will determine whether, accounting for the independent effects of external variables, the main model’s causal factors retain explanatory power. While the following analysis will not be able to prove the superiority of this paper’s model in every case of contentious energy policy during the period of study, it will increase confidence in the model’s ability to explain an important part of the story through focus on the hold-up situation and economic institutions.
Chapter 5: Gazprom Export Prices

Introduction

The previous two chapters have used qualitative case-study analysis to locate the importance of the hold-up problem in Russian energy diplomacy from 2000 through 2011 within the former Soviet Union. Comparing Russian relations with Belarus and Kazakhstan revealed, first, that conflict arises when downstream transit countries with limited time horizons for action attempt to hold up exports from an upstream supplier, and second, that more liberalized hydrocarbon industries allow countries to manage the hold-up problem through non-coercive means. Next, comparing Russian relations with the Baltic States of Latvia, and Lithuania furthermore revealed that change in institutional arrangements designed to mediate the hold-up problem precipitates the use of coercive measures in energy policy. This chapter will test these theories quantitatively, through cross-sectional time-series linear regression analysis of Gazprom’s natural gas export prices to former Soviet states.

Use of natural gas exports prices as the focus of quantitative analysis prompts a central question: if gas prices were a source of tension between Russia and its neighbors during the period of study, what use does it have as a response variable? What’s important to note here is that, as indicated in previous chapters, a large goal of Putin’s energy policy during the period of study was to maximize profits by recalibrating energy export prices to match European levels instead of Russian domestic prices. By creating the state energy monopolies of Gazprom for natural gas, Rosneft for oil, and Transneft for pipeline transportation, Putin sought to manage the country’s energy industry and align its interests with the Russian state. Any variation in natural gas export prices that the market forces of supply and demand cannot explain, then, would serve
as evidence that the Putin administration had an active role in shaping Gazprom’s economic activity, rewarding and punishing countries with prices below or above the market rate in response to various potential factors. Testing quantitative variables that correspond with explanations for Russian energy diplomacy, then, can reveal evidence in favor or against this paper’s argument regarding the interaction of structural and institutional variables in determining conflict and cooperation.

What would this interaction look like in terms of Gazprom export prices? For the mutual hold-up between Russia and the country of interest, there are two ways Gazprom can react to different values of this variable. If a country has the capability to restrict Gazprom’s exports, threatening its bottom line, it would make sense for the company to keep bilateral prices low in hope of sustaining the economic relationship. Alternatively, if the Putin administration directs Gazprom to raise prices as a coercive tool in energy diplomacy, then the state monopoly would do so, even if those higher rates threatened the viability of future company revenues. Because Gazprom’s interests as a profit-maximizing, risk-minimizing company do not align with Russia’s interests in protecting sovereignty rights, the presence of an association between hold-up position and natural gas export prices is not enough to support this paper’s contentions. Proving a positive association between these two variables, however, would show that Gazprom operates as an arm of the Putin administration in line with the theoretical expectations developed in this thesis.

A relationship between the institutional variable of state-market relations and price in line with this paper’s causal model, however, does not require a complicated justification. Gazprom, as a company, should not care one way or the other if another country’s domestic institutions allow Russia to gain decision-making power over its energy-related infrastructure. If anything, the presence of personalized corruption networks could lead to higher export prices, with
downstream collaborators pass along these inflated prices and extract greater rents from energy transit. But again, if Gazprom acts as a mechanism for state-level coercion, its pricing should reflect the relationships presented in this thesis. Accordingly, the theoretical expectation is for Gazprom, to respond to higher levels of institutional access with lower natural gas export prices.

There are two additional issues, however, with assessing natural gas export prices as an indicator of conflict or cooperation. First, there is the question of whether Russia viewed price distortion as a desirable means of coercion compared to other alternatives. According to the literature, Russia and its neighboring states often linked natural gas pricing to extant energy disputes.\(^1\) As such, price increases could become a symptom of conflict even if Russia didn’t intend to use them as punishment. Additionally, price changes could have served primarily as a reward, not a punishment. Low prices relative to other states would serve as a sign of good bilateral relations, with higher prices merely indicating the lack of cooperation. The second problem however, is that prices could change based on the results of Russian tactics, with successful attempts at coercion leading to lower energy prices despite poor bilateral relations. What’s important to remember is that the purpose of this chapter is to determine under what conditions, but not when, conflict and cooperation occur. Since the following quantitative analysis tracks change in prices over time, relationships can be significant even if only explain variation in prices during a segment of the period of study.

As such, quantitative analysis of Gazprom export prices to Russia’s fourteen post-Soviet neighbor-states should first reveal a significant, positive relationship between a country’s ability to hold up Russia and Gazprom’s price of natural gas for that country. The more leverage a downstream country has over Russia in the hold-up situation, the more contentious its stance towards Russia will be, inducing Gazprom to push up export prices to coerce a change in

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\(^1\) Hedenskog et al. 2007, 7
behavior. A rival hypothesis would be that change in Russia’s upstream position drives conflict and cooperation, with a significant, positive relationship between Russia’s ability to hold up its neighbors and gas export prices. According to this alternative explanation, the more leverage Russia has over a downstream country, the more it seeks to use its position to demand concessions, pushing up export prices as a coercive tool. Finally, there is the null hypothesis, that change in the hold-up positions of either Russia or its neighbors has no significant effect on natural gas export prices. Evaluating these three hypotheses regarding the structural variable of bilateral hold-up situations is therefore this chapter’s first objective.

After establishing the role of the structural variable, the next area of analysis is the effect of mediating institutions. There are, however, four non-exclusive hypotheses to account for. First, there is the Eurasia hypothesis, where Russia lowers gas prices for post-Soviet countries that pursue Eurasian integration through Russian-dominated international organizations like the CSTO and EAEU, and raises prices for those seeking membership in Western institutions like the EU and NATO. Second, there is the ideological hypothesis, which holds that Russia raises gas prices to undermine democratic regimes to prove the superiority of nationalist conservative authoritarianism over cosmopolitan liberal democracy. Third, there is the opportunism hypothesis, which claims that Russia raises or lowers prices to take advantage of extant conflict and instability in its ‘near abroad,’ playing rival factions against one another to gain leverage over foreign leaderships. And finally, there is the market access hypothesis, developed throughout this paper, where Russia takes coercive action when unable to secure its interests through foreign direct investment. For each of these alternative explanations, Gazprom would adjust export prices according to each hypothesis’s explanatory variable: regional integration,

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2 Delcour 2015, 318
3 Smith 2016, 172
4 Hedenskog et al. 2007, 9
regime democratization, state incapacity, and economic liberalization, respectively. Testing these potential components of the institutional variable is the second object of analysis for this chapter.

Methodology

With any quantitative test, the first step is conceptualizing the causal and response variables and locating numerical indicators for their measurement. For the dependent variable of this analysis, Gazprom export prices, I relied on values, calculated in dollars per thousand cubic meters (Export Price), from a dataset of Russian gas prices to the fourteen other post-Soviet states from 2000 through 2011. Although this dataset is the most complete record available of Gazprom’s export pricing, the data do not cover all units of time for every country. Rather, as Table 2 in the Appendix shows, the data is ‘imbalanced,’ with many more observations for some countries, such as Ukraine, than for others like Kyrgyzstan and Tajikistan. The reason for this imbalance is that the original use of the data set was to analyze price conditions around certain events; as such, countries with more unique energy-related events have more observations. But as natural gas export prices per country usually remain stable within year-long periods, and the dataset represents moments when a country’s price changed as event dates, the data are able to sufficiently capture changes in Russia’s export policies over time. But since the cross-sectional analysis analyzes variation for each country individually, fewer observations for many countries may cause the statistical model to see some relationships as insignificant for lack of data points. Programs and routines exist to solve this problem; although this paper does not employ these methods, future studies can use them in replications of this analysis.

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5 Maness and Valeriano 2015. Price data received from Dr. Maness via email.
6 These methods would include calculating moving averages of Russian price between known data points to put each country on the same time scaling.
Independent Variables

The first independent variable in the model is the domestic Russian price of natural gas, calculated yearly as an average of all Russian provincial prices (Russian Price). As opposed to country-specific export prices, Gazprom published these figures in its 2010 and 2014 data books, with values going back to 2003.\(^7\) I included this variable for two main reasons. First, the Russian domestic price is a baseline for determining export prices for most post-Soviet countries at the beginning of the period of study, and upward deviations from this baseline represent coercive attempts that raise the potential for dispute. Second, this variable captures change in the market for Russian natural gas independent of international politics, such as shifting production and transportation costs, supply and demand shocks, and other market changes.\(^8\) For these reasons, including the Russian domestic price as an independent variable explains 55 percent of export price variation in the final statistical model. While Gazprom also published average export prices for Central and Western European countries during this period, I decided to drop this potential variable, as its insignificance and high level of collinearity with Russian domestic prices made its variation irrelevant for creating the statistical model.

The next two independent variables attempt to capture variation in Russia’s mutual hold-up situations with its post-Soviet neighbors. To do so, I compiled data on bilateral and total imports and exports data in app products between Russia and the fourteen country cases from 2000 to 2009.\(^9\) From these numbers, I calculated import and export trade shares\(^10\) for each side of the bilateral relationship. By combining Russia’s share of each country’s imports and exports,

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\(^7\) Gazprom 2010
Gazprom 2014

\(^8\) Although average export prices to Germany would appear to better capture market effects, this potential variable could also face some of the same bilateral (Russian-German) considerations as FSU pricing, making Russian domestic price the cleaner variable.

\(^9\) Barbieri and Keshk 2016. Although values for trade relating to the energy sector would be superior, no such data is readily available.

\(^10\) Gartzke and Li 2003
and each country’s share of Russia’s imports and exports, I was able to calculate Russian share of each country’s trade (Hold-Up By Russia), and each target country’s share of Russian trade (Hold-Up On Russia). Although these two variables are relatively correlated, they act independent of one another within the model, with acceptable levels of collinearity. While this measure of trade interdependence is not a perfect indicator for the energy sector hold-up, I chose it for three reasons. First, as shown in the case studies, political decision-making took into account not only the hydrocarbon industry, but also energy supplies for domestic production. Second, since for many countries Russia is the sole energy supplier, accounting only for hydrocarbon transit would inaccurately portray certain hold-up situations as incredibly lopsided and prevent variation. And finally, more specific data on energy-specific trade share for the entire post-Soviet region was not readily available.

The next independent variable is the level of economic liberalization (Economic Liberalization). To operationalize this variable, I made use of the Chinn-Ito Index of capital account openness. The index scores countries based on a number of factors including regulatory control over current and capital account transactions, exchange rate policy, and repatriation of foreign profits. While the Chinn-Ito Index does not account for some aspects of liberalization important to the cases studies, such as the presence of state monopolies and international preferences of political leaderships, the measure does account for domestic institutional arrangements which allow for these more personalized sources of variation to occur in the first place. Since economic environments more open to international investment are conducive to Russia seeking out pursuing asset ownership through market investment instead of pipeline

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11 While another measure combining these two values to calculate hold-up advantage may lead to stronger causal relationships, the variables presented here are more useful in determining whether Russia or the target country is facing a time-horizon for its advantageous position.
12 Chinn and Ito 2006
coercion, the Chinn-Ito Index is an appropriate proxy for the liberalization variable in the main causal model. And while this economy-wide measure does not directly reflect policies specifically regarding the energy sector, the relative importance of the hydrocarbon transit in each nation’s economy suggests that this issue is not as problematic for the post-Soviet region.

The final three variables represent alternate components of mediating institutions. First, to represent the Eurasian explanation I created a variable for post-Soviet integration, with points allotted for levels of membership in Russian-led international organizations and retracted for levels of membership in the EU and NATO (Eurasian Integration). The point allocations range from -2.5 for the Baltic States following the EU’s 2007 Treaty of Lisbon, to 5.5 for Belarus after it joined the CIS Free Trade Area in 2011.\textsuperscript{13} While this 8-point scale is a crude representation of membership in international organizations, it reflects both changing membership and levels of commitment to the organizations. Next, to represent both democratization (Democratic Regime) and state fragility (Fragmented Polity), I relied on datasets available through the Integrated Network for Societal Conflict Research (INSCR) Center for Systemic Peace. From the INSCR’s Polity IV Project, I obtained a variable for democratic governance.\textsuperscript{14} And from the INSCR State Fragility Index and Matrix I obtained a variable for state fragility, defined as regime inability to effectively govern its territory.\textsuperscript{15}

With one dependent variable and seven independent variables, I compiled a dataset with 643 unique country-month gas export prices from 2000 through 2011. These entries, however, do not have an even distribution by country; rather, they range from a minimum of 12 entries for Armenia to a maximum of 117 entries for Ukraine, with the median number of entries per

\textsuperscript{13} Coding by the author based on readily available information on membership and evolution of post-Soviet regional institutions. More information Tables 4 and 5 of the Appendix.

\textsuperscript{14} Marshall et al. 2016. This dataset also supplied a variable for the independent assessment of autocratic governance, but I dropped that variable in favor of the democratic variable’s stronger performance in the models.

\textsuperscript{15} Marshall and Cole 2015
country being 38.5. Also, because data availability for Russian domestic prices and bilateral trade limited the range of dates to the period from 2003 through 2009, the dataset retained 452 usable entries. While these limitations did not prevent rigorous statistical testing of causal relationships, they do impose certain qualifications on any results from such testing. Mainly, the data limits the time-frame of analysis. Since Gazprom usually renegotiates prices on an annual basis, 2009 prices are largely a reflection of 2008 conditions. As such, the data does not reflect the impact of the 2008 financial crisis, and resulting sharp decline in global petroleum prices, on Russian energy policy. Summary statistics of export prices by independent variable and by country are in Table 1 of the Appendix.

Statistical Methods

With these limitations in mind, I decided to perform a panel analysis on Gazprom natural gas export prices to former Soviet states from January 2000 through December 2009. Panel analysis, also known as cross-sectional time-series analysis, holds constant variables which change evenly across groups, making clear the effect of variation only as it occurs within individuals over time. Before conducting this analysis, however, I had to ensure the potential model fulfilled the main assumptions for linear regression analysis: linearity, statistical independence, homoscedasticity, and normality. Correlations demonstrating linear relationships between the causal and response variables are in Table 3 Appendix.

Evaluating the other assumptions required more specific statistical tests. To indicate statistical independence, I calculated the variance inflation factors (VIF) for each causal variable. With a mean value of 4.29 and maximum of 5.87, this low level of collinearity satisfies the

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16 Torres-Reyna 2007, 3
17 Nau 2017
assumption that the variables in the model are statistically independent of one another. To test homoscedasticity, or constant variance, and normality, or ‘normal’ probability distribution, of error terms, I employed the Breusch-Pagan/Cook-Weisberg and Shapiro-Wilk tests respectively. These tests indicated with 99 percent confidence that the model fit the normality assumption, but was not homoscedastic. Because of this violation, I had to take extra computational measures for “robustness” when performing regression analysis to account for the presence of outliers. With these core assumptions assessed, I was confident in the ability of linear regression analysis to infer conclusions about Gazprom export strategy.

The main question when performing a panel analysis, however, is whether variable effects are fixed or random. With fixed-effects (fe), the assumption is that variation in the dependent variable occurs as result of factors intrinsic to individual entities; because of this, fixed-effect models discount variables which do not change over time within panels, and ignore correlation across panels. On the other hand, with random-effects (re) the assumption is that differences across entities drive change in the dependent variable; as such, random-effect models discount variables which do not change across panels over time, and do not ignore correlation across panels. To simplify, fe models hold countries constant to measure the effect of variation over time, and re models hold time constant to measure the effect of variation across countries.

Determining whether to use a fixed-effects or random-effects model for this analysis requires matching logical assessment of the relevant data and the statistical Hausman test. As the causal model established in previous chapters focuses exclusively on factors either intrinsic to individual countries (i.e. economic liberalization), or variables whose causal power derives from change over time within individual bilateral relationships with Russia (i.e. the hold-up situation),

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18 Ben-Gal 2005, 9  
19 Torres-Reyna 2007, 9  
20 Ibid, 25
using the fe model seemed appropriate. I verified this conclusion with the Durbin-Wu-Hausman
test, which determines whether differences between the fe and re models are systematic based on
the individual dependent variables. Running the Hausman test in Stata, I received a $\chi^2$ value of
35.07 and a significance level of 99.99 percent, showing with virtual certainty that differences
across country are systematic within the data and the fixed-effects model is therefore superior.

With the base methodology established, I proceeded to run three fixed-effects panel
regressions. The first, structural model controls for change in Russian domestic gas prices to
assess the independent effects of both sides of the hold-up situation on Gazprom export prices.
The second, institutional model, also controlling for domestic price changes, incorporates the
effects of economic liberalization, democratization, regional integration, and political
fragmentation. The third, combined model incorporates both structural and institutional
variables. After running each model I assessed the statistical significance of each causal variable
(p-value), the extent to which each models explain variation in the response variable within and
across post-Soviet states over time (r-squared), and the F-value measure for testing overall
significance. The Prob(F) statistic, testing the quality of each model, resulted in a 99.99 percent
confidence level every time, showing with virtual certainty that there is no reason to suspect that
the regressions incorrectly analyze the data. The next section summarizes and explains the
results of this fixed-effects panel regression analysis, placing them in the context of Russian
energy diplomacy and this paper’s theoretical expectations.

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21 Ibid, 29
### Results and Analysis

<table>
<thead>
<tr>
<th>Table 1: Panel Regression Results</th>
<th>Structural Model</th>
<th>Institutional Model</th>
<th>Combined Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russian Price</td>
<td>5.077***</td>
<td>3.705***</td>
<td>4.68***</td>
</tr>
<tr>
<td>Hold-Up By Russia</td>
<td>-171.0506</td>
<td>-102.23</td>
<td></td>
</tr>
<tr>
<td>Hold-Up On Russia</td>
<td>1669.079**</td>
<td>1416.101**</td>
<td></td>
</tr>
<tr>
<td>Foreign Market Access</td>
<td>-11.39</td>
<td>-40.74*</td>
<td></td>
</tr>
<tr>
<td>Democratic Regime</td>
<td>-9.85**</td>
<td>-18.15</td>
<td></td>
</tr>
<tr>
<td>State Incapacity</td>
<td>-5.75</td>
<td>-13.59</td>
<td></td>
</tr>
<tr>
<td>Eurasian Integration</td>
<td>-25.24***</td>
<td>-25.92***</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>-63.85</td>
<td>95.82</td>
<td>151.606</td>
</tr>
<tr>
<td>$R^2$ (within countries)</td>
<td>0.6824</td>
<td>0.7169</td>
<td>0.7281</td>
</tr>
<tr>
<td>$R^2$ (across countries)</td>
<td>0.0083</td>
<td>0.1551</td>
<td>0.0527</td>
</tr>
<tr>
<td>N (sample size)</td>
<td>452</td>
<td>453</td>
<td>452</td>
</tr>
<tr>
<td>F value</td>
<td>109.37</td>
<td>243.54</td>
<td>152.36</td>
</tr>
</tbody>
</table>

**legend:** * p<.1; ** p<.05; *** p<.01

Table 1 summarizes the results of the three models. Looking first at the model testing structural variables, the regression analysis found positive, statistically significant\(^ {22} \) causal relationships for the control variable *Russian Price*, as well as the independent variable *Hold-Up On Russia*. The relationship for *Hold-Up By Russia* was negative but not significant. The significant, positive relationship for *Russian Price* is expected, since Gazprom export prices tend to move in tandem with Russian domestic prices, with global market forces influencing both. Next, the negative, but insignificant relationship for *Hold Up By Russia* is interesting, since temporary relative advantages in Russia’s hold-up position should have a positive relationship with conflict. A significant, positive relationship for *Hold Up On Russia*, however, shows that higher prices result from a weaker Russian hold-up position. Taken together, these results suggest that Russian foreign policy responds to changes in hold-up position beyond its direct control. If Russian decline in hold-up position is a result of change in its own position, Putin can

\(^ {22} \) Confidence thresholds (e.g. 90, 95, and 99) indicate not the specific size of relationships, but confidence in the existence and direction of a relationship. With a confidence level of 95, for example, if I were to obtain 100 different samples of Gazprom export price-dates post-Soviet countries I would expect 95 of them to agree with the presence and direction of association for the specific variable.
expand his country’s capabilities, such as through new ports and pipeline routes. But if worsening Russian bilateral hold-up position is the result of change in the other country, then aggressive diplomacy may be the tool needed to manage the relationship.

The second model testing institutional variables found significant, negative causal relationships for Democratic Regime and Eurasian Integration. Relationships for Foreign Market Access and State Incapacity were negative, but statistically insignificant. A significant, negative relationship for Eurasian Integration meets theoretical expectations, with Gazprom rewarding countries that join Russian-led regional organizations, including the Eurasian Economic Community, with lower gas prices and punishing states entering regional organizations which Russia perceives as threatening, such as the EU, with higher prices. The significant, negative relationship for Democratic Regime appears interesting on-face, but since the variable loses significance in the third model its behavior is inconclusive. Next, the insignificant relationship for State Incapacity makes sense given the nature of the theorized link. While state incapacity presents Russia with the ability to undermine or strengthen the target country’s regime, it does not inform the direction of such efforts. What’s most interesting, though, is the insignificant relationship for Foreign Market Access. While the negative direction is in line with theoretical expectations for the independent effect of economic liberalization, the lack of significance weakens any claim of this effect.

For the third, combined model, the causal relationship for Foreign Market Access gained significance, while the one for Democratic Regime lost significance. The relationships for all other variables remained unchanged in direction or significance. Democratic Regime losing significance is in line with theoretical expectations, as the direction of its relationship with prices does not match theoretical expectations. Additionally, it makes sense that regime
democratization has no independent effect, since the measure does not reflect the economic policies that regime makes regarding Eurasian energy transit. The new significance for Foreign Market Access in this model, though, is incredibly important. Liberalized economies only appear to make a difference on Gazprom pricing when the model accounts for the effects of the mutual hold-up. This relationship within the model confirms the theoretical expectations, drawn from the previous chapters, that change in foreign market access is a proximate cause of change in energy prices, with the structural effects of the hold-up problem acting as a deep cause.

Finally, the combined model explained 72.81 percent of variation within countries, and 5.27 percent of variation across countries represented in the data. Because fixed-effects panel analysis attempts to hold constant variation across countries to better assess variation within countries, the discrepancy between these two numbers should not be surprising. What these r-squared results show, then, is that the combined model accounts for the bulk of variation in Russian prices within any one country across time. Since the goal of this paper’s theoretical analysis is to explain the internal dynamics of Russian bilateral relations with its post-Soviet neighbor-states, a statistical model accounting for nearly three quarters of bilateral change in Gazprom export prices provides invaluable evidence to that end.

These statistical findings contribute much to an understanding of Russian foreign energy policy and the effects of structural and institutional variables. First, at the structural level, Russia responds to worsening of its bilateral hold-up position beyond its domestic control by raising gas prices. Since Russia’s energy infrastructure depends on bilateral trade to maintain operations at full capacity, Russia responds to direct threats to its use rights by renegotiating the price of use rights for the other country. There are two potential explanations for the observed relationship. First, Russian policy could be proactive, raising prices in response to the increased potential
costs from downstream countries holding up transit. And second, Russian policy could be reactive, raising prices in response to downstream countries taking advantage of their increased leverage over Gazprom exports. Because these explanations are observationally equivalent, with the statistical model unable to confirm one or the other, distinguishing between them is beyond the scope of this chapter. But as the first model alone accounts for about 68 percent of variation within country-cases, it lends strong support to the analytical framework presented in this paper and its assumption that Russian energy diplomacy is rational and responsive to the country’s changing structural environment.

With the structural component of this paper’s main contention satisfied, the next statistical models turn to the potential for various institutional factors promoting cooperation. The institutional arrangements that maintain significant impacts on Gazprom export prices are membership in regional organizations and economic liberalization. Membership in regional organizations favorable to Russian economic and security interests reduces the likelihood that Russia uses higher prices as a coercive tool. From the statistical analysis, however, it is impossible to determine whether Russia is rewarding countries for joining Russian-oriented organizations or simply abstaining from punishing them. This paper’s theoretical analysis would argue that regional institutions act as a credible commitment towards future cooperation in the energy sector, and more rigorous qualitative analysis can support this claim. As regards economic liberalization, the statistical models end up confirming the variable’s theorized position. Liberalized economies give Russia the space to manage its hold-up situations without interference from the neighboring country’s state interests, reducing the need for price coercion.

In total, the statistical models provide solid quantitative backing for this paper’s main contentions. Russian decision-making regarding Gazprom export pricing takes both structural
and institutional factors into account, and is not simply a corporation responding to market forces. But neither is Russian natural gas pricing a tool for subverting rival ideologies or wreaking havoc in unstable neighbors. Instead, variation in Gazprom export pricing is a rational response to changing structural and institutional conditions surrounding the management of bilateral hold-up situations. When Russia’s hold-up position decreases because of factors beyond its domestic control, it resorts to price increases to coerce changes in foreign behavior. And the presence of credible commitments to cooperation, including membership in Russian-oriented regional organizations and liberalized economies, creates space for cooperative resolution of contentious energy diplomacy. These relationships, in line with this paper’s broader claims, meet the requirements of rigorous statistical analysis and theoretical interpretation.

Conclusion

Before pointing to avenues of further quantitative analysis, a few points qualifying the veracity of these statistical inferences and interpretations of them are in order. First, because of the limitations of Stata software and the difference between results of panel and linear analysis, I could not compare the size of each significant causal variable’s effect on Gazprom export prices. Another issue is the strength of the Regional Integration variable. Since its confidence level was virtually certain despite my having coded it by my own design and implementation, it is possible that a more accurate version of the variable would change the results of the combined model. This change could change the significance levels of variables in both models, cutting against this paper’s core contentions. Additionally, since Hold-Up On Russia and Hold-Up By Russia accounted for all trade, and not just hydrocarbon transit, a model with a more specific variable could reach different conclusions.
Besides issues with specific variables, there are additional potential problems in applying these quantitative findings to specific country-cases. Although linear regression analysis can determine whether country prices differ from one another throughout the entirety of the period of study with statistical significance, and adding variables to such regressions can show their independent impacts, such regressions always use one country-case as a benchmark for determining difference. While the ideal question is how well this paper’s model explains variation in each individual country, the only question linear regression analysis can answer is whether, given the impact of this paper’s variables, individual country prices still differ from Moldova’s. As more sophisticated panel regression analysis ‘on the margins’ is often of use in answering this question, future analysis can perform these statistical methods after correcting for imbalances in the data.

Despite these shortcomings, this chapter’s quantitative analysis reveals much about post-Soviet energy diplomacy during the period of study, verifying the conclusions of previous chapters. Without question, the data strongly supports the causal relationships presented and defended in this paper. First, the superiority of fixed-effects analysis proves in itself that factors unique to each bilateral relationship influence Gazprom export price differentiation. Next, the relationship between prices and downstream countries’ abilities to hold up Russian trade is robust and positive, showing that public, not private, interests are in play. This robust relationship supports a key contention of this thesis’s causal model, that, all else equal, larger hold-up threats by neighboring countries lead to conflict with Russia. And finally, controlling for other institutional variables present in the literature on energy diplomacy, economic liberalization retains a significant, negative relationship with gas prices, supporting the other main argument of this paper. By allowing Russian entities to invest in local energy sectors,
countries can foster cooperative relationships with Russia in managing their bilateral hold-up situation. These results, then, generalize the conclusions from comparative case-study analysis in Chapters 3 and 4 to the entire post-Soviet region.

In the next chapter, this paper concludes by placing these conclusions in wider context. The causal relationships shown in this chapter’s analysis of Gazprom export prices from 2003-2008 are not just statistically significant – they are important for both policy and theoretical considerations. Proving that Gazprom acted as an arm of the Putin administration in managing the country’s bilateral hold-up situations reveals a coordinated, consistent Russian foreign policy towards the goal of managing bilateral hold-up situations. And the causal patterns underlying this strategic goal are clear, with both structural and institutional variables independently effecting Russian energy diplomacy. These conclusions present a parsimonious model of Russian energy diplomacy, aiding policymakers and academics interested in understanding and managing post-Soviet conflict and cooperation.
Chapter 6: Conclusion

In exploring Russian bilateral relationships with former Soviet states from 2000 to 2011, this thesis establishes a useful model for explaining varying outcomes of post-Soviet energy diplomacy. Using qualitative case-studies of Russian relations with Belarus, Kazakhstan, Latvia, and Lithuania, as well as quantitative panel regressions of Gazprom export prices, the preceding chapters have identified and analyzed causal relationships explaining Russian foreign energy policy. The resulting model adds clarity to discussions of Russia’s long-term goals in the energy sector, as well as its short-term motivations and tactics. As the model accounts for variation both across and within countries over time, it is useful for analysis of post-Soviet energy-related conflict beyond the period of study.

According to the model, change in the mutual hold-up situation determines the level of threat a neighboring country poses to Russian use rights over transit infrastructure, and the presence of moderating economic institutions serves as a credible commitment to cooperation. When neighboring states along the hydrocarbon supply chain are capable of holding up Russian transit by reallocating use rights over energy infrastructure, Russia attempts to prevent such disruptions by obtaining control rights over the country’s energy infrastructure. If the bilateral relationship features certain moderating institutions, such as open cross-border investment, private ownership of target assets, and personalized corruption networks, these arrangements act as credible commitments promoting cooperation. These structural and institutional variables together determine the outcomes of energy diplomacy, with direct threats to Russian use rights leading to greater conflict and the presence of moderating institutions facilitating cooperation.
This explanation contributes to the extant international relations scholarship by employing concepts from both geopolitical and relational contracting frameworks in a concise model.

Figure 1: Complex Model

<table>
<thead>
<tr>
<th>Downstream Relative Advantage in Mutual Hold-Up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access for Private Asset Ownership</td>
</tr>
<tr>
<td>Cooperative Conflict Resolution</td>
</tr>
</tbody>
</table>

Evidence from comparative case-study analysis of Russian relations with Belarus and Kazakhstan establish a firm grounding for applying this model. In Belarus, the country’s midstream supply chain position and capability to restrict transit to both Europe and Kaliningrad posed a direct threat to Russian use rights, and a socialized energy industry featuring state control of Beltransgaz prevented institutional moderation of the hold-up dispute. Kazakhstan, however, presented both a direct threat to Russia’s Europe-bound transit with control of the Caspian Pipeline Consortium, as well as the indirect threat of new oil and gas excavation competing with Russian energy exports. For the CPC, Kazakh state ownership prevented institutional moderation, but the two countries cooperated over distributing control rights for the privately-owned Kumkol oil field. Comparing these country-cases revealed that position along the hydrocarbon supply chain contributes to hold-up threat levels, and that private corporate ownership of target assets functions as a moderating institution. The cases also emphasize the importance of time-horizons in assessing one’s position in the mutual holdup. Even if a state has a weaker bilateral position throughout the entire period, it will attempt to redistribute sovereignty rights when it anticipates its declining position in the near future.
The second qualitative chapter reinforces and builds on these conclusions in comparative analysis of Russian relations with Latvia and Lithuania. In Latvia, impending European Union membership threatened long-term Russian use rights through the country, but increased Russian port and pipeline capacity in the Baltic Sea reduced the intensity of this threat. Additionally, Latvian preference for Western firm ownership of energy infrastructure in its privatization process prevented the continuation of economic institutional arrangements with Russia. While in the early 2000s Lithuania posed a similarly indirect threat to Russian use rights, by 2006 the country directly threatened energy transit to Russia’s Kaliningrad exclave. And while Lithuania accommodated Russian interests through personalized corruption networks in the early period of study, by 2006 it had uprooted these connections and their moderating effect on potential conflict. Comparing the outcomes of these cases revealed further variation in the dependent variable, with each independent variable independently contributing to the intensity of conflict. While conflict in Latvia was low-intensity, with Russia sustaining minimal harm through a shift in transit routes, conflict in Lithuania was high-intensity, as Russia suffered significant harms to its energy supply in Kaliningrad. Even if change in the structural or institutional variable alone induced conflict, both factors had an independent influence on conflict intensity.

Table 1: Variation in Causal and Response Variables

<table>
<thead>
<tr>
<th>Indirect Threat to Russian Use Rights</th>
<th>Direct Threat to Russian Use Rights</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Target Institutional Access</td>
<td>\textit{KAZ_{2006}, LTU_{2004}}</td>
</tr>
<tr>
<td>Low Target Institutional Access</td>
<td>\textit{LVA_{2003}}</td>
</tr>
</tbody>
</table>

legend: \textit{cooperation}, low-intensity conflict, \textbf{high-intensity conflict}
Using panel regression analysis of Gazprom export prices, the quantitative analysis in Chapter 5 confirms some of the theoretical expectations presented throughout this paper. The results of this cross-sectional time series data analysis indicate first, that change in the downstream hold-up position has a significant, positive association with natural gas export prices, but change in the upstream capacity has no significant effect. This distinction validates a key causal relationship from Chapter 2, that in a bilateral relationship along a supply chain, change in the downstream country’s relative position induces contentious situations. Another implication of the quantitative analysis is that economic liberalization and Eurasian regional integration have a significant, negative effect on prices, while democratization and general state capacity have no significant effects. These findings provide support for the moderating institutional arrangements emphasized in the qualitative chapters by demonstrating their superiority over other variables present in the literature on post-Soviet energy diplomacy. Overall, the data suggests that Gazprom export price discrimination in the post-Soviet region matches the expectations of this paper’s causal model.

While this thesis’s account of Russian energy diplomacy in the post-Soviet region provides a clear and compelling explanation of variation in conflict and cooperation, there are various avenues for further research. First, both the qualitative and quantitative components of this paper analyze Russian action during a period of increasing oil and natural gas prices. Holding global market forces constant does allows more accurate analysis of the variables which do change, but it presents a challenge for generalizing this project’s findings beyond the study’s time frame. Pending available evidence, future analysis of Russian bilateral energy diplomacy with former Soviet states should test the theoretical expectations established here in the period following 2011. With the future viability of energy export revenues uncertain, I would expect
that regional policymakers have prioritized capturing short-term political gains over long-term economic development, leading to greater potential for international conflict. In this regional environment, moderating institutions should play a role similar to the one identified here, but change in mutual hold-up dynamics may contribute to causal relationships qualifying, or even contradicting, the ones this paper establishes.

Another area for further exploration is the specific role of energy-related conflict in post-Soviet militarized disputes. During the period of this paper’s study, Russia was involved in frozen conflicts within the Caucasus and Eastern Europe, and in 2008 one such conflict led to Russia invading Georgia. The study of these conflicts often emphasizes the role of energy transit in determining Russia’s interest in guaranteeing the de facto independence of regions in Moldova, Georgia, and Azerbaijan. By tracing the process of Russian involvement in these frozen conflicts, further analysis can examine to what extent the structural and institutional variables of this thesis apply to conflicts that are more intense than any present in these chapters. If variation in the intensity of these conflicts is associated with change in the mutual hold-up or level of institutional moderation, these relationships would provide further evidence for this paper’s causal model. Moreover, applying the theoretical expectations of this thesis to these cases would strengthen the potential practical implications that these conclusions may have for the ongoing conflict in Ukraine.

Finally, as noted in Chapter 5, better conceptualization of quantitative variables could improve the results of panel regression analysis of Gazprom export prices. By using monthly averages of Russian domestic prices instead of yearly values, energy-specific trade data instead of total bilateral trade, and more accurate expressions of regional integration, quantitative analysis of Gazprom export prices could lead to stronger statistical inferences. In addition,
including an institutional variable conceptualizing personalized corruption networks can further test the arguments this thesis presents. Given the robust statistical methods used in Chapter 5, and the regression results’ consistent support for the causal model, it is unlikely that replication of and improvements on this project’s data analysis will overturn the conclusions here presented.

Through careful case-study and robust statistical analysis, this thesis makes a notable contribution to academic discourse on the dynamics behind conflict and cooperation in post-Soviet energy diplomacy. Understanding the struggle between post-imperial states over the control and use of vital infrastructural networks is essential for navigating today’s international political climate. In the West, rising economic nationalism in the U.S. and Europe has frayed the ties that bind international economic systems. And in the East, China has steadily expanded institutions of both regional and global economic coordination. Between these two developments sits Russia and the post-Soviet region, wielding great potential to influence the direction of global economic integration. Of course, the future distribution of wealth, status, and power within the international community remains far from certain. Yet it is clear that without a keen understanding of the dynamics between regional powers and peripheral states, we can be certain about one direction of global economic realignment: toward conflict.
Appendix

Table 1: Summary Statistics of Independent Variables

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Export Price</td>
<td>165.59</td>
<td>109.76</td>
<td>30</td>
<td>583</td>
</tr>
<tr>
<td>Russian Price</td>
<td>45.49</td>
<td>14.094</td>
<td>22.14</td>
<td>65.97</td>
</tr>
<tr>
<td>Hold-Up By Russia</td>
<td>0.187</td>
<td>0.1096</td>
<td>0.508</td>
<td>0.575</td>
</tr>
<tr>
<td>Hold-Up On Russia</td>
<td>0.0183</td>
<td>0.0236</td>
<td>0.000559</td>
<td>0.080596</td>
</tr>
<tr>
<td>Foreign Market Access</td>
<td>0.221</td>
<td>1.60998</td>
<td>-1.895</td>
<td>2.389</td>
</tr>
<tr>
<td>Democratic Regime</td>
<td>4.86</td>
<td>3.86</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>State Incapacity</td>
<td>6.695</td>
<td>4.48</td>
<td>0</td>
<td>17</td>
</tr>
<tr>
<td>Eurasian Integration</td>
<td>0.679</td>
<td>2.129</td>
<td>-2.5</td>
<td>4.5</td>
</tr>
</tbody>
</table>

Table 2: Summary Export Price Statistics by Country

<table>
<thead>
<tr>
<th>Country</th>
<th>Obs.</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Armenia</td>
<td>12</td>
<td>119.58</td>
<td>46.77</td>
<td>67</td>
<td>180</td>
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<tr>
<td>Azerbaijan</td>
<td>37</td>
<td>177.97</td>
<td>80.58</td>
<td>45</td>
<td>235</td>
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<tr>
<td>Belarus</td>
<td>66</td>
<td>121.12</td>
<td>81.98</td>
<td>18</td>
<td>270</td>
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<tr>
<td>Estonia</td>
<td>57</td>
<td>252.23</td>
<td>128.71</td>
<td>93</td>
<td>582</td>
</tr>
<tr>
<td>Georgia</td>
<td>61</td>
<td>182.67</td>
<td>80.66</td>
<td>73</td>
<td>265</td>
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<tr>
<td>Kazakhstan</td>
<td>40</td>
<td>130.8</td>
<td>72.68</td>
<td>40</td>
<td>250</td>
</tr>
<tr>
<td>Kyrgyzstan</td>
<td>21</td>
<td>162.33</td>
<td>93.035</td>
<td>43</td>
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<tr>
<td>Latvia</td>
<td>52</td>
<td>214.096</td>
<td>110.57</td>
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<td>526</td>
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<td>Lithuania</td>
<td>79</td>
<td>232.56</td>
<td>126.28</td>
<td>92</td>
<td>583</td>
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<td>Moldova</td>
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<td>162.79</td>
<td>89.83</td>
<td>80</td>
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<tr>
<td>Tajikistan</td>
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<td>144.69</td>
<td>84.082</td>
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<td>Turkmenistan</td>
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<td>102.96</td>
<td>54.54</td>
<td>44</td>
<td>260</td>
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<td>Ukraine</td>
<td>117</td>
<td>130.504</td>
<td>92.26</td>
<td>50</td>
<td>329</td>
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<tr>
<td>Uzbekistan</td>
<td>21</td>
<td>103.14</td>
<td>66.032</td>
<td>42</td>
<td>250</td>
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Table 3: Correlations

<table>
<thead>
<tr>
<th></th>
<th>Export Price</th>
<th>Russian Price</th>
<th>Hold-Up By Russia</th>
<th>Hold-Up On Russia</th>
<th>Foreign Market Access</th>
<th>Democratic Regime</th>
<th>State Incapacity</th>
<th>Eurasian Integration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Export Price</td>
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<td></td>
<td></td>
<td></td>
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<td>Russian Price</td>
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<td>0.6284</td>
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<tr>
<td>Hold-Up By Russia</td>
<td>-0.4651</td>
<td>-0.0891</td>
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<tr>
<td>Hold-Up On Russia</td>
<td>-0.3834</td>
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<td>0.7008</td>
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<tr>
<td>Foreign Market Access</td>
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<td>-0.5848</td>
<td>-0.5418</td>
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<tr>
<td>Democratic Regime</td>
<td>0.3423</td>
<td>-0.0835</td>
<td>-0.4016</td>
<td>-0.1113</td>
<td>0.657</td>
<td>1</td>
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<tr>
<td>State Incapacity</td>
<td>-0.3166</td>
<td>-0.0107</td>
<td>0.128</td>
<td>-0.1322</td>
<td>-0.5864</td>
<td>-0.6748</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Eurasian Integration</td>
<td>-0.4347</td>
<td>0.0912</td>
<td>0.6258</td>
<td>0.177</td>
<td>-0.5169</td>
<td>-0.7962</td>
<td>0.4802</td>
<td>1</td>
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</table>

Legend: *Italicized – not significant at p<.001*

Table 4: Scoring for Membership in Regional Organizations

<table>
<thead>
<tr>
<th>Regional Organization</th>
<th>Scoring</th>
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<tbody>
<tr>
<td>Union State</td>
<td>+1</td>
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<tr>
<td>Collective Security Treaty Organization (CSTO)</td>
<td>+1</td>
</tr>
<tr>
<td>Commonwealth of Independent States (CIS)</td>
<td>+1 Members, +.5 Associate Members</td>
</tr>
<tr>
<td>CIS Free Trade Area</td>
<td>+1</td>
</tr>
<tr>
<td>Eurasian Economic Community (EAEC)</td>
<td>+1</td>
</tr>
<tr>
<td>European Union (EU)</td>
<td>-1</td>
</tr>
<tr>
<td>North Atlantic Treaty Organization (NATO)</td>
<td>-1 Members, -.5 Planned Members</td>
</tr>
<tr>
<td>Shanghai Cooperation Organization (SC)</td>
<td>+.5</td>
</tr>
<tr>
<td>GUAM</td>
<td>-.5</td>
</tr>
</tbody>
</table>
Table 5: Timeline of Membership in Regional Organizations

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>Kazakhstan, Kyrgyzstan, Tajikistan Join SCO</td>
</tr>
<tr>
<td>1996</td>
<td>Georgia, Ukraine, Azerbaijan, Moldova Join GUAM</td>
</tr>
<tr>
<td>1999</td>
<td>Belarus Joins Union State</td>
</tr>
<tr>
<td>1999</td>
<td>Armenia, Kazakhstan, Tajikistan, Kyrgyzstan, Belarus Join CSTO</td>
</tr>
<tr>
<td>1999</td>
<td>Armenia, Azerbaijan, Belarus, Kazakhstan, Kyrgyzstan, Moldova, Tajikistan, Uzbekistan Join CIS</td>
</tr>
<tr>
<td>1999</td>
<td>Ukraine Joins CIS as Associate</td>
</tr>
<tr>
<td>1999</td>
<td>Uzbekistan Joins GUAM</td>
</tr>
<tr>
<td>Oct-00</td>
<td>Belarus, Kazakhstan, Kyrgyzstan, Tajikistan October Join EAEC</td>
</tr>
<tr>
<td>Jun-01</td>
<td>Uzbekistan Joins SCO</td>
</tr>
<tr>
<td>Mar-04</td>
<td>Estonia, Latvia, Lithuania Join NATO</td>
</tr>
<tr>
<td>May-04</td>
<td>Estonia, Latvia, Lithuania Join EU</td>
</tr>
<tr>
<td>May-05</td>
<td>Uzbekistan Leaves GUAM</td>
</tr>
<tr>
<td>Aug-05</td>
<td>Turkmenistan Joins CIS as Associate</td>
</tr>
<tr>
<td>Oct-05</td>
<td>Uzbekistan Joins EAEC</td>
</tr>
<tr>
<td>Jun-06</td>
<td>Uzbekistan Joins CSTO</td>
</tr>
<tr>
<td>Sep-06</td>
<td>Georgia Plans to Join NATO</td>
</tr>
<tr>
<td>Mar-08</td>
<td>Ukraine Plans to Join NATO</td>
</tr>
<tr>
<td>Aug-08</td>
<td>Georgia Leaves CIS</td>
</tr>
<tr>
<td>Oct-08</td>
<td>Uzbekistan Leaves EAEC</td>
</tr>
<tr>
<td>Jun-10</td>
<td>Ukraine Drops Plan to Join NATO</td>
</tr>
<tr>
<td>Oct-11</td>
<td>Armenia, Belarus, Kazakhstan, Kyrgyzstan, Moldova, Tajikistan, Ukraine form CIS Free Trade Area</td>
</tr>
</tbody>
</table>
Bibliography


