RUSSIA, GERMANY AND THE CONTEST FOR HEGEMONY IN EUROPEAN NATURAL GAS

by

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DEDICATION PAGE

This work is dedicated to my mother, Nancy, and my two sons, Eliot and Jackson, whose constant encouragement, love and good humour have provided light in darkish times.

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ABSTRACT

Russia has supplied natural gas to Europe reliably for nearly four decades. But recent changes in Russian behaviour and policy, combined with EU-driven regulatory changes, have created a state of flux, and considerable concern in Europe. I address the question of possible Russian hegemony in European gas relations, and ask whether Moscow's ambitions represent a security threat to Europe. Positioning these questions within the context of a European natural gas *regime* (NGR), I take a historical-comparitive approach, dividing the evolution of the NGR into three phases. Phase one moves from the origin of the cross-border trade in Europe in the 1960s to the 1991 Soviet dissolution; phase two explores the turbulent post-Soviet decade to 1999; and phase three addresses the era of Vladimir Putin from 2000 to 2010. For each phase, I assess hegemony by drawing on regime concepts offered by Alt et al, which I modify for application to the idiosyncratic realm of natural gas. The evidence suggests that Germany, not Russia, is more appropriately considered hegemonic, having acquired gas influence in the 1970s that it has not relinquished. However, there are also indications that a German-Russian 'co-hegemony' could be developing, characterized by disproportionate Russian influence in Central Europe, giving rise to possible tension between EU values, governance and responsibilities on one hand, and Russian influence associated with co-hegemony on the other. Despite this, I suggest that Russian aspirations constitute no imminent security threat to Europe – European gas actors are well entrenched, and Moscow faces strong disincentives to threaten its European buyers. 'Co-hegemony' could challenge the regime's integrity, but evidence to date suggests that the EU and Gazprom prefer patience and compromise to brinkmanship, and that actor interest in maintaining the flow of gas suggests greater optimism than dread. 'Security' is therefore not as sound as it would be if Russia were an EU member or if it had ratified the Energy Charter Treaty, but emerging dynamics do not suggest imminent peril either. I conclude with propositions concerning the conditions under which gas actors are more/less likely to issue threats, and suggest directions for future research.

LIST OF ABBREVIATIONS USED

BCM	Billion Cubic Metres
BDI	Bundesverband der Deutschen Industrie
BGW	Bundesverband der deutschen Gas- und Wasserwirtschaft
BP	British Petroleum
CEO	Chief Executive Officer
CEPMLP	Centre for Environmental, Petroleum and Mineral Law and Policy
CNPC	China National Petroleum Corporation
COMECON	Council for Mutual Economic Assistance
DSM	Dutch State Mines
EBN	Energie Beheer Nederland
EC	European Commission
ECT	Energy Charter Treaty
EFET	European Federation of Energy Traders
EGRF	European Gas Regulatory Forum
ENI	Ente Nazionale Idrocarburi
EU	European Union
FSU	Former Soviet Union
GDP	Gross Domestic Product
GECF	Gas Exporting Countries' Forum
IEA	International Energy Agency
IGO	Inter-Governmental Organization
IMF	International Monetary Fund
JAGAL	Jamal-Gas-Anbindungsleitung
LNG	Liquified Natural Gas
MEGAL	Mittel-Europäische-Gasleitung
MIDAL	Mitte-Deutschland-Anbindungsleitung
MOU	Memorandum of Understanding
NATO	North Atlantic Treaty Organization
NEL	Norddeutsche Erdgasleitung
NGR	Natural Gas Regime
NNPC	p.167 Nigerian
NRA	National Regulatory Authority
OIES	Oxford Institute for Energy Studies
OMV	Österreichische Mineralölverwaltung
OPAL	Ostsee Pipeline Anbindungs-Leitung
OPEC	Organization of Petroleum Exporting Countries
REPSOL	Refineria de Petróleos de Escombreras Oil
RWE	Rheinisch-Westfälisches Elektrizitätswerk
STEGAL	Sachsen-Thüringen-Erdgas-Anbindungsleitung
TAG	Trans Austria Gas
TPA	Third-Party Access
TSO	Transmission Service Operator
UGSS	Unified Gas Supply System

UK	United Kingdom
USSR	Union of Soviet Socialist Republics
VIK	Verband der Industriellen Energie- und Kraftwirtschaft
VNG	Verbundnetz Gas AG
WIEH	Wintershall Erdgas Handelshaus
WTO	World Trade Organization

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CHAPTER 1 INTRODUCTION

The European trade in natural gas, an activity that began with exports from the Groningen fields of the Netherlands some forty-five years ago, is in a state of flux. Continental appetite for the commodity is at odds with ever-dwindling supply, a reality that obliges continental actors to look east, to Russia, holder of the largest reserves in the world, and a longstanding supplier of natural gas to Europe. Russia, however, has altered its approach to natural gas in recent years. Its national energy champion, Gazprom, has worked steadily to increase its presence in the region, and while it has maintained positive relationships with its high-order European buyers, the style and substance of the company's activity since 2000 have raised serious concerns among other actors. At the same time, the European Union has become keenly interested in natural gas, going to great lengths to regulate a trade that not so long ago it had all but ignored. It is unsurprising, therefore, that the term 'energy security' has acquired buzzword status. It is also unsurprising that the trade in natural gas has been driven from its traditional, low-key profile to the forefront of high politics, continent-wide.

Two aspects of these dynamics stand out. First, there is no question that Russian gas policy has become more assertive. Gazprom has sought to vertically integrate pipelines in the former Soviet republics, and has made acquisitions in countries of alternate supply to Europe (e.g., Libya, Algeria). The Kremlin has abrogated contracts with foreign firms operating in Russia, and has proposed to redefine existing transport corridors, bypassing transit states that include new EU members.[1] Finally, Russia's

[1] Russia's September, 2006, suspension of massive joint-venture projects established on Sakhalin Island under the Yeltsin administration with Shell and Chevron was ostensibly based on environmental violations by the western firms, but was generally viewed as a not-so-subtle acquisition of majority stakes by

repeated references to the possibility of a 'gas OPEC,' like its sporadic discussions with Beijing over possible natural gas deliveries to China, have stoked a quiet fear that European supplies could be manipulated or diverted.

The second aspect, then, is the degree of concern that these developments have engendered in Europe. This too is unsurprising; old habits die hard, and many in the west have had good reason to be unnerved by signals emanating from the east – as Finon and Locatelli put it, "the Russian government is hardly reassuring."[2] These signals have been augmented by concrete actions, most notably Russia's now-infamous cut-offs of gas deliveries to Ukraine in 2006 and 2009. The former event lasted only 24 hours and created a furor that was largely speculative in nature – i.e., 'is this supplier reliable?' – but the 2009 cut-off dragged on for more than two weeks, creating very real shortages in Eastern Europe amid freezing temperatures, and lending new urgency to the reliability question. It was, without doubt, the most serious disruption ever seen in 40-plus years of Russian gas deliveries to Europe, embedding a strong sense of disconcert, and cementing the term 'energy security' – henceforth, more accurately, gas security – in political, media and public discourse.

Expressions of this anxiety have fallen into fairly predictable clusters. A *geopolitical* variant is security-focused: Europe needs gas, and its reserves are diminishing; Russia has gas, but its recent posture signals, for many, a tightening linkage in the Kremlin between the supply imbalance, Russian national interest, and foreign

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Gazprom. See, for example, BBC News, "Gazprom Grabs Sakhalin Gas Stake," 21 December, 2006. Accessed 6 March, 2010, from: http://news.bbc.co.uk/2/hi/business/6201401.stm. A second sudden change occurred wit the offshore Shtockman field, where a sudden announcement in October of 2006 by Gazprom CEO Alexei Miller that Russia would undertake Shtockman production alone followed years of dialogue about the need for foreign involvement in the development of the field, and a shortlisting of western firms.

[2] Dominique Finon and Catherine Locatelli, "Russian and European Gas Interdependence: Could Contractual Trade Channel Geopolitics?" Energy Policy, Vol.36, 2008, pp.423-442.

policy. Again, Russian commentary has not discouraged such a view, as evinced by the clear reference in the country's 2003 national energy strategy to enhancing the country's "geopolitical position" through the use of natural gas.[3] The commodity thus emerges as something that can be leveraged, with Gazprom an obvious agent of new Russian influence in Europe.

The *commercial* expression has placed less emphasis on initiatives emanating from Moscow than from Brussels, principally the Energy Charter Treaty (ECT) and the liberalization of continental gas markets. The ECT, initiated in the early 1990s to secure European involvement in the post-Soviet upstream, was encouraged under Boris Yeltsin and – initially, at least – by Vladimir Putin, but was treated with increasing scorn before finally being rejected in 2009. Adherents of the commercial perspective tend to point to these initiatives as the route to gas security; in open, competitive markets, and in 'third party access' to transmission networks, there is less for any actor to exert control *over*. Threats to gas security therefore consist in the inability of actors to agree on initiatives like the ECT or liberalized gas markets. Conversely, the best route to gas security is to employ frameworks that would bring openness and liberalization about.[4]

Both perspectives are flawed. The geopolitical view meshes neatly with a traditional Realist framework in which incidents like the Ukrainian shutdowns emerge as predictable manifestations of inter-state friction, and the natural execution of foreign

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[3] See the 2003 "Summary of the Energy Strategy of Russia for the Period of up to 2020," presented by the Ministry of Energy of the Russian Federation in August of 2003, p.21. Accessed 20 September, 2009, from: http://ec.europa.eu/energy/russia/events/doc/2003_strategy_2020_en.pdf.

[4] Cambridge University economist Pierre Noël, for example, suggested the following definition for 'energy security': "I would advocate a narrow definition of energy security, centered on the availability of energy to those who are willing to pay the market price. Energy insecurity can then be linked to situations when energy markets do not function properly. Energy security policies should be mostly aimed at 'making markets work' and letting them work when they do." See FT.com, "Is Energy Security A Political, Military Or Market Problem?" 10 January, 2008. Accessed 24 March, 2010, from: http://www.ft.com/cms/s/2/fd6ef84a-bf85-11dc-8052-0000779fd2ac.html

policy leverage. What the geopolitical view does not explain is why such disturbances have not occurred more often – for as uncertain as Europe's energy situation might appear, the flow of Russian gas has been surprisingly stable for more than four decades. This is no small achievement. Born in the wake of the Prague Spring, this paradoxical relationship has endured three oil shocks, stop-and-start Cold War tension, stagnation, confusion, and the demise of the U.S.S.R. But through all of this (and much more), the gas has continued to flow, with the two Ukrainian incidents existing as glaring exceptions to what has otherwise been a remarkably reliable rule. This should lead us to ask whether there is more to gas security than consideration of who has gas and who does not. If Russia is seeking to exert political influence, it has yet to demonstrate that it can use its European gas exports to do so. And if Europe is 'gas-insecure' by virtue of dependence on Russia, it has made a good show of coping so far.

The commercial interpretation has its own shortcomings. It understates the political element in European gas relations that has existed from the start. This is visible beyond the obvious Soviet and, now, Russian element of government control. It can be seen in Europe as well – the field has always been dominated by large national gas 'champions' that, with the exception of Germany, were invariably state-controlled. Even now, following a wave of privatization that began in the 1980s, strong connections to national governments remain, manifested in tight, consensual arrangements, expanded on in Chapter 2. Much of this is due to the natural monopoly characteristics of the trade – the firms entrusted with the growing cross-border trade in Europe became very large very quickly, and the increasing contribution of natural gas to public well-being lent a strong political element to what might otherwise have been strictly commercial activity. If gas

security inheres in market openness, this tendency toward monopolistic and corporatist structures does not fit with the historically reliable flow of Russian gas. And if a European internal market or a successful ECT would make Russia more 'reliable,' we should wonder how exclusive bilateral contracts with a state-controlled supplier – and a traditional geopolitical opponent – have managed to warm European homes for the past forty-three years.

None of this obviates the changes initiated from the Russian side over the past decade, however. Whether one adopts the geopolitical or the commercial view, and regardless of the longstanding stability in gas flows, there is no doubt about the enhanced presence of Russia and Gazprom, or about the timbre of the policies they have enacted. This raises questions about a possible re-organization in the relationship, i.e., a shift in the balance of influence that favours Russia, and what that could entail. A two-part question is therefore suggested: **is Russia acquiring hegemonic dominance in European gas relations, and do its ambitions represent a security threat to Europe?**

To assess this issue-specific form of hegemony, we require some workable understanding of what it is that might be dominated, what the security inheres in, and how it might be threatened. To this end, I position these questions within the framework of a European natural gas *regime*, or NGR, an approach that offers a number of advantages. The most fundamental of these is the potential of a regime framework to illuminate the institutional 'glue' inherent in this unique issue-area. By articulating the interplay of Krasner's 'norms, rules, principles and decision-making procedures' in the specialized realm of natural gas, I hope to impart a sense of the regime integrity that has evolved over time, and to enable an assessment of the shifts and pressures that might or

might not lead to change. The regime literature also offers a ready set of concepts that can be organized into a framework for analysis, and provides a sensible means to integrate actors from different levels into the analysis, an essential requirement in this case. My hope is that, in laying out the parties to the regime, the connections between them, the norms that have evolved, and the physical characteristics of the trade in natural gas, I provide a more nuanced framework in which to explore the research question than the geopolitical or commercial perspectives have offered to date.

The issue-area of European natural gas presents something of a challenge to more general and generic 'regime theory,' and the reader would be justified in questioning the suitability of the NGR as a case-study for the generation of generalizable hypotheses about regimes or actor behaviour. It is emphasized at the outset, then, that the highly atypical character of the NGR limits the potential for generalizable conclusions to be drawn from its analysis. In the latter part of the dissertation I do offer a series of propositions that might be extracted for consideration in other contexts, but this is not the primary goal of this exercise. Beyond offering a compelling and useful answer to the research questions posed above, I would suggest that the goal in applying conventional regime concepts to this decidedly unconventional case is three-fold: to shed light on the link between international politics and commercial imperatives in natural gas, an historically under-attended topic in International Relations; to identify the key drivers of NGR integrity, as suggested in the regime's extraordinary stability; and to offer a way past the geopolitical-commercial binarism in which so much discussion of this pressing topic has been lodged.

After defining this regime and analyzing its evolution, I argue that one particular actor, Germany – or more accurately the German agglomeration of state-firm interests discussed in Chapter 2 – capitalized on domestic market dynamism, geographic advantage and structural changes in the regime to assume a position of hegemony from the mid-1970s on. More recently, Russia and the European Union have asserted themselves in substantial ways, but I argue that neither has superseded Germany, which has drawn on geography, market opportunity, and cooperative internal gas politics to create a position of considerable strength. Moreover, apart from the organizational, financial and political mass that Germany would represent if Russia were to strive to dislodge it, there is no compelling case to be made that it should try. Russia's ability to compel is, at present, limited by a dearth of viable outside options and its dependence on gas export revenue. It is also deriving considerable benefit from the status quo. The evidence presented here suggests, then, that Russia is not acquiring a position of hegemonic dominance in European natural gas, and that its current ambitions do not represent a security threat to Europe.

However, I also suggest that significant changes in the regime over the past decade make it possible to speak in terms of a budding German-Russian co-hegemony, manifested in these actors' disproportionate control over pipelines in an era of increasing importance of Russian gas, and cemented by a deepening, 'special relationship' between the two countries. Germany retains its longstanding position in Western Europe, while Russia appears to be assuming greater influence in its former East European sphere, a development that has created tensions in light of the EU enlargements and NGR expansion in 2004 and 2007. These tensions have considerable potential to complicate

the choices available in the region, and in Brussels, but I argue that they do not represent a dire threat to the security of Europe or the integrity of the regime.

1.1 Literature Review: Extraction of Core Concepts

The international regime concept, widely attributed to John Ruggie in 1975, has been presented by Keohane as a natural response to the "fact of interdependence."[5] Prominent in treatments of monetary organization, security and the environment, regimes are generally understood in terms of Krasner's now-standard definition, i.e., "principles, norms, rules and decision-making procedures around which actor expectations converge in a given issue area."[6] Regimes are said to regulate actor behaviour by mitigating self-interest and competition; they can be designed for higher politics (trade, missile proliferation) or for mundane matters (airport codes, passport formats), for "dilemmas of common interest" or "common aversion."[7] States, it is argued, opt into them because the benefits of doing so outweigh the costs, as a result of the 'supply side' influence of a hegemon with the ability to coerce smaller actors into the relationship, or of the 'demand' side appeal which actors see as a means to cope with political market failure.[8] To be sure,

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[5] Robert Keohane, After Hegemony: Cooperation and Discord in the World Political Economy, Princeton: Princeton University Press, 1984, p. 8.

[6] Krasner provides sub-definitions for each of these terms in Stephen D. Krasner (Ed), International Regimes. Ithaca and London: Cornell University Press, 1983, pp.1-3. Similarly, Ruggie defined regimes as "mutual expectations, rules and regulations, plans, organizational energies and financial commitments which have been accepted by a group of states." John Gerard Ruggie, Constructing the World Polity: Essays on International Institutionalization. New York: Routledge, 1998, p. 56.

[7] Arthur A. Stein, "Coordination and Collaboration: Regimes in an Anarchic World," International Organization, Vol. 36, No.1 (Winter, 1982), p.304 and 309.

[8] Keohane, in Roger K. Smith, "Expanding the Non-Proliferation Regime: Anomalies for Contemporary International Relations Theory," International Organization, Vol. 41, No. 2, 1987, p. 254-256.

there have been detractors, many of whom have addressed the 'do regimes matter' question posed, ironically, by Krasner.[9]

The presence of *hegemony* in my research question encourages a regime approach, though, admittedly, it departs from the conventional use of the term by focusing on a form of leadership that is both regionally delimited and issue-specific. It is also atypical in the absence of overarching agreements or other overt institutional manifestation; in this sense, the NGR I am positing more closely reflects the 'functional' theoretical basis for regimes suggested by Haggard and Simmons than the more rigid requirements suggested by Stein.[10] To clarify the kind of regime I am positing for the European relationship, I draw on a set of concepts examined by Alt, Calvert and Humes in their 1988 investigation of hegemony and the OPEC-led oil regime: *asymmetry of size; distributional conflict; coercive influence; reputation and uncertainty; and hegemonic decline*.[11] Below, I summarize and connect these concepts to the wider literature. While Alt et al neatly extract and summarize a range of ideas from the regime theory literature, and while I contend that the European gas case can credibly be examined as a regime, it

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[9] Robert Keohane, "The Demand for International Regimes," in Krasner (Ed.), 1983, p.141. Balanced critiques are found in Stephen Haggard and Beth Simmons, "Theories of International Regimes," International Organization, Vol. 41, No. 3, 1987, pp.491-517, and in Stephen D. Krasner, "Global Communications and National Power: Life on the Pareto Frontier," World Politics, Vol. 43, No. 3, 1991, pp. 336-366 – or fiercely contested, as in John J. Mearsheimer, "The False Promise of International Institutions," International Security, Vol. 19, No. 3 (Winter, 1994/95), pp.5-49, or Susan S. Strange, "Cave! Hic Dragones: A Critique of Regime Analysis," International Organization, Vol. 36, No. 2 (Spring, 1992), pp. 479-496. The innovative 'weakest-link' and 'best-shot' scenarios were offered by Arce and Sandler in 2001. Daniel G. Arce and Todd Sandler, "Transnational Public Goods: Strategies and Institutions," European Journal of Political Economy, Vol. 17, No. 3, 2001, pp. 493–516.

[10] Haggard and Simmons posited three additional theoretical bases for regimes: structural, game-theoretic and cognitive. See Stephen Haggard and Beth Simmons, "Theories of International Regimes," International Organization, Vol. 41, No. 3, 1987, pp. 491-517. Stein argued that full qualification as a regime required a state's decision-making independence must be constrained, i.e., through the replacement of individual state decision-making with joint decision-making. See Arthur Stein, "Coordination and Collaboration: Regimes in an Anarchic World," International Organization, Vol. 36, No.1, 1982, pp.294-324.

[11] James E. Alt, Randall L. Calvert and Brian D. Humes, "Reputation and Hegemonic Stability: A Game-Theoretic Analysis," American Political Science Review, Vol.82, No.2 (June, 1988), pp.446-466.

is complex and idiosyncratic, and the standard conceptual fare of regimes does not map neatly onto the world of natural gas. Adaptation is therefore required; this is carried out in Section 1.2, below.

1.1.1 Asymmetry of Size

The term *hegemon* carries an automatic implication of size, a point expressed by Alt et al as a difference in capability among regime members; citing Keohane, they present it as "big in markets, big in capital, big in resources, or big in military power."[12] Gilpin and Keohane were more specific, the former citing economic efficiency and political and military strength as the keys to hegemonic power; the latter stressing four dimensions of "preponderance:" control over raw materials, sources of capital, markets, and competitive advantage "in the production of highly valued goods."[13] The notion that this influence is a *requirement* for system stability is another cornerstone of the theory. Keohane grudgingly accepted that "a single power, possessing superiority of economic and military resources, [can implement] a plan for international order based on its

[12] Duncan Snidal, "The Limits of Hegemonic Stability Theory," International Organization, Vol.39, No.4 (Autumn, 1985), p.585. The idea of power differential was central to this topic, as argued in Arthur Stein, "The Hegemon's Dilemma: Great Britain, the United States, and the International Economic Order," International Organization, Vol.38, No.2, 1984, pp.355-386, or in Stephen Krasner, "State Power and the Structure of International Trade," World Politics, Vol.28, No.3 (April, 1976), pp.317-347. The latter article preceded the emergence of hegemonic stability theory and, without using the term 'hegemony,' became one of the most frequently cited sources on the topic. 33 years later, Keohane wrote that it had "crystallized issues and set the terms for more than a decade of work in the field of international political economy." See Robert Keohane, "Problematic Lucidity: Stephen Krasner's "State Power and the Structure of International Trade," World Politics, Vol.50, No.1, Fiftieth Anniversary Special Issue (Oct., 1997), pp. 150-170. More generic perspectives are found in Keohane's seminal *After Hegemony,* and in Robert Gilpin, The Political Economy of International Relations. Princeton: Princeton University Press, 1987.

[13] Gilpin, paraphrased by Stein (1984: 357); Keohane (1984: 32). Others were more critical. Russett laments the vagary around the amount of power needed before hegemony can be said to exist, suggesting that in the absence of "some rather sharp step-level jump at which hegemony comes into existence or is lost … relative power is necessarily distributed continuously." Russett (1985: 209). For Stein, Gilpin and Krasner move too readily from asserting a hegemon's interest in liberal trade to presuming the emergence of arrangements to regulate it. They presume that a hegemonic state is able to exert influence, with no clear explanation of how. Stein (1984: 357).

interests and its vision of the world," but rejected its corollary that, in the absence of hegemonic influence, order will dissipate, i.e., the hegemonic decline thesis.[14]

1.1.2 Distributional Conflict

Questions surrounding the "good deal" the hegemon achieves in its assumption of a leading role are rife in the literature. Alt et al posit a continuum with, at one end, an 'empire' in which smaller actors receive the bare minimum share of the benefits that they can accept, and below which they would rebel. At the 'alliance' end the benefits are divided more evenly – they use the rather vague example of the provision of order – while the hegemon fares little better than if no regime existed at all. These are ideal types; the authors are more interested in what happens in between these poles. In these cases, they suggest, special features like asymmetry come into play, enabling (or failing to enable) the hegemon to compel actors to accept a lesser share. Smaller actors so compelled, the authors argue, might still acquiesce if they are realizing a net benefit from their participation in the regime. The key point is that benefits are shared, but the balance varies from regime to regime or, presumably, across time within the same regime.

The notion of shared benefit is consistent with Kindleberger's 'leadership surplus,' allocated according to the degree of asymmetry in the regime.[15] But many choose to focus on costs of free-riding that a hegemon tolerates because it cannot (a) exclude smaller parties or (b) ensure they pay their share.[16] Snidal, analyzing Gilpin, points to an important adjustment to this concern: that in addition to absorbing costs to

[14] 1984: 355
[15] Like Alt et al, he argues that the allocation depends on the hegemon's position in the system as one of leadership, dominance or exploitation.(1981: 245)
[16] Paraphrased from Snidal (1985: 588).

stabilize and benefit the system, a hegemonic actor "is capable of extracting contributions toward the good from subordinate states," thus "providing public goods *and* taxing other states to pay for them."[17] This idea was instrumental in his widely-cited distinction between 'benevolent' and 'coercive' hegemony.[18]

1.1.3 Coercive Influence

The notion that leaders create and enforce the rules of the game is another key aspect of regime theory.[19] Alt et al acknowledge Snidal's benevolent/coercive differentiation but stress the hegemon's ability to compel, addressing the costs of coercion, and the legitimacy that smaller actors attribute to the hegemon. A 'strong' hegemon, for example, can coerce at low cost. Coercion might cost a weaker hegemon more, but could still be worth it if it produces a net benefit. Finally, the authors see it as rational for subordinate actors to challenge the hegemon periodically, just as it is for the hegemon to be "erratic" in discouraging them. In doing so, actors maintain and capitalize on information asymmetries concerning the true costs of acquiescence, challenge, punishment and non-punishment in the "rocky road" of international arrangements. These

[17] Ibid, p. 587. Italics in original. Gilpin's notion of the twin function of provision and 'taxation' intrigued Snidal, though he points out that arguments about the hegemon's ability to reap disproportionate rewards were not new, having been central to literature on imperialism, dependency and world-systems theory.
[18] Under coercion, he argues, even if the provision/taxation recipe left all parties better off, "there is no reason to believe that the distribution of benefits favours smaller states," since the hegemon can create a distribution that favours itself. Further, the hegemon's ability to exploit others could lead the 'taxation' to exceed the benefits smaller states receive from provision of the good. Even under coercion, therefore, the legitimacy of the hegemon could be enhanced if, as Snidal and Gilpin suggest, subordinate states would tolerate the exploitive dynamics because such tolerance would be less costly than trying to escape them.
[19] See John Gerard Ruggie, "International Regimes, Transactions and Change: Embedded Liberalism in the Postwar Economic Order," International Organization, Vol.36, No.2, 1983, p. 384. Stein's compelling critique of this assumption stresses the requirement of hegemonic states to form "asymmetric bargains" with would-be adherents, an economic imbalance that hegemons accept in order to achieve wider political objectives. As he puts it, a hegemon "must get others to agree." This, for Stein, is the "hegemon's dilemma," a commitment to openness required by leaders "regardless of what others do."1984: 356, 384.

incentives do not suggest "regime breakdown" but, rather, reflect natural dynamics that serve as the basis of "future regime cooperation."[20]

In Snidal's coercion, Kindleberger's dominance/exploitation or Alt's empire, the hegemon's disproportionate gains derive from the ability to regulate arrangements. Russet argues that hegemonic ascension alters preferences and expectations; if an actor can change the rules, repeated demonstrations of power become unnecessary. Hegemony is thereby legimitized as subordinate actors 'buy in,' either because they are realizing a net benefit, or because they lack the power to change distasteful arrangements.[21] All of these assumptions – of outright coercion, of domestic constraints/incentives, of asymmetric bargains, and of unstable equilibrium – suggest a need to look at the specific conditions that drive hegemonic assertion. Whether the drivers are internal or external, economic or political, "the debate is really about the decision criteria that states do and should employ," when it is worth it to coerce, and how.[22]

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[20] 1988: 455, 459-461.

[21] Krasner stressed the importance of domestic interests in determining a state's willingness – i.e., as opposed to ability – to exert itself. Both Ruggie and Katz (cited in Gilpin, 1987: 72) made similar points, arguing the need for 'favourable disposition' in the "domestic distribution of power" of the leading state for a would-be hegemon to make the effort. Krasner (1976: 318) used these domestic factors to explore British hegemony when it ought to have been unable to play the role, and the lack of American hegemony when it was able but unwilling. Stein's examination of British and American trade relations in the 19th and 20th reveals arrangements based not on uni-directional advantage but on asymmetric bargains that favoured non-hegemonic actors. "The hegemon," he writes, "must get others to agree." (1984: 358-359). Keohane argued that the postwar U.S. achieved this by offering a range of incentives and assurances, a softer coercion designed to play on "mutual interests with their partners" (1984: 136-138).

[22] Stein (1984: 384). There is room for context-dependence and issue-specificity here. As Snidal puts it, hegemonic stability theory tends to assume "that states are myopic decision makers … and that other states' behaviour remains *constant* …the theory ignores the impact of bargaining, negotiation, strategic rationality, and, of course, cooperation through collective action" (1985: 600, italics in original). This potential for varied treatments of system dynamics by the hegemon, and by its subordinates, extends not only across coercion/no coercion and soft/hard continua, but also across issue-areas; a hegemon could decide to demonstrate influence in one issue-area but not in another.

1.1.4 Reputation and Uncertainty

For Alt et al, a hegemon must absorb the costs of demonstrating 'toughness,' or it must foster a reputation for toughness sufficient to deter challenges, whether the reputation is justified or not. The catch with the latter approach is that if the bluff is called, legitimacy is lost, forcing the stronger actor to accept the costs of actual coercion in the next instance. The emphasis is on the extent to which the observations of others affect the calculations of both hegemon and a subordinate state when a challenge is deliberated or made. To use Snidal's terminology, reputation furthers coercive hegemony, serving both 'strong' hegemons (able to "coerce at low cost") and 'weak' ones (for whom the costs, though higher, might still encourage coercive action in "appropriate" circumstances) within a context of uncertainty by raising the point in the distribution of gains at which a subordinate deems it viable to challenge the leader. The authors extend this logic to suggest that a hegemon can make strategic investments in a reputation for toughness, extending its coercive reach by making it more likely in the eyes of 'allies' that challenges will be met with a harsh response.

For Keohane, reputation assumes a value akin to honesty – a reputation for even-handed dealing enhances a state's ability to persuade others to participate in international arrangements.[23] The primary benefit of fostering such a reputation, he suggests, is a reduction – in the eyes of prospective partners – in the uncertainty of one's future intentions. While Keohane acknowledges the possible gains to be made from taking a less transparent approach and "keeping others guessing," he argues that this could later

[23] 1984: 94. Guisinger and Smith take a very similar approach (2002).

impede negotiations with other states.[24] Axelrod's treatment is less normative but his point is similar. His emphasis is not on the positive benefits of demonstrable reliability but on the element of *learning* in repeated iterations between actors. An actor's reputation is developed in the minds of others as a result of observed behaviour.[25]

1.1.5 Hegemonic Decline

The decline thesis suggests that order in international arrangements (a) requires a hegemon, and (b) is less achievable as a hegemon wanes. Alt et al see instability as inherent in hegemonic relations, but stress as a "consequence of uncertainty" the incentives that actors have to adopt a mixed strategy of acquiescence and challenge. In this view – contrary to the normative preference of Keohane – actors benefit by keeping others guessing as to their true capabilities and intentions.[26] The notion of inevitable erosion was endorsed by some, contested by others.[27] Both Strange and Russett found it untenable to question how order was maintained amid declining American influence if it could not be established that such a decline had actually occurred. Others accepted U.S. decline but pointed to situations where its regimes did not break down. Keohane, for example, felt that the sweeping equation of declining hegemony to eroding cooperation was flawed, preferring a more nuanced treatment by issue-area – the decline thesis

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[24] "Being unpredictable," Keohane suggests, "not only disconcerts one's partners but reduces one's own ability to make credible promises" (1984: 105-106, 259).

[25] Axelrod (1980: 151-153).

[26] 1988: 459. They also suggest that hegemony "founded on reputation" is inherently unstable because of the link between reputation and uncertainty about the future costs of coercion, and that iteration provides other states with increasing insight into the hegemon's "nature" and, we can assume, capability, "eroding the reputational basis of an existing regime."

[27] Kindleberger posited an inherent, leadership-eroding "entropy" from the temptation of a leader to become exploitive, from the inevitable dissatisfaction of smaller actors, or from domestic impatience with free-riding. (1981: 250). Gilpin's similar approach stresses "spin-off growth" that takes place for smaller states within a hegemonic system, and suggests that reduction of this growth creates destructive "centrifugal" forces (1987: 76).

explained changes in the global oil regime, for example, but was less useful in explaining the non-erosion of international trade cooperation.[28] This non-erosion is attributed to the incentive for cooperation that is promised by international regimes. Once rules are in place to manage an issue-area, with buy-in established among partner states that are realizing net benefit à la Snidal, there is a stronger incentive to continue to participate in and support the regime than to defect from it.[29]

1.2 THE NATURAL GAS REGIME

1.2.1 Advantages of the Regime Approach

A regime approach is consistent with the idea of a delimited system, and provides us with a logical scope to work within: the geographic space comprising continental Europe and its pipeline links to external suppliers. This fits with the tendency of natural gas relationships to be regional in nature, a result of the physical properties of the commodity, which encourage the use of fixed, long-distance pipelines linking gas field to market. A regime approach also allows us to mix the levels of analysis; in natural gas, large, influential private and state-owned firms rival states as central players, and must be accounted for. Similarly, in the EU we have an influential supranational actor, giving us three levels to address. These actors' inclusion within a regime allows us to accept their unlike units status; by highlighting their thematic interlinkage, the regime facilitates their consideration as as interested and affected components of the same framework.

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[28] 1984, pp. 182-216.
[29] Martin Hollis and Steve Smith, Explaining and Understanding International Relations. Oxford: Clarendon Press, 1990, p. 37.

Further, a regime approach accommodates the simultaneous presence of cooperation and competition. Again, there is more to gas relationships than a state-driven contest for power. As will be discussed on in Chapter 2, natural gas relationships are notoriously difficult to construct, and Krasner-esque norms, rules, etc. are important mechanisms of signalling and mutual assurance; they are certainly discernible in the NGR's consistent use of long-term contracts, in protracted actor adherence to these agreements and, again, in the generally stable flow of gas. This pronounced cooperation serves both sides of the export-import divide, producing the benefit surplus posited by Kindleberger. At the same time, there is competition within the relationship, with actors competing for benefits and advantages in upstream or downstream access, in contractual specifics, and through policy.

Finally, a regime approach accounts for the dynamism of the natural gas relationship. In system theory terms, it could be characterized as an 'unstable equilibrium,' i.e., a consistent set of arrangements where various aspects of balance – divisible pecuniary benefits or negotiating advantage, for example – are constantly changing, but never so drastically that the fundamental stability of the system is threatened. Shifts occur, but the overall balances remain within general parameters, and the relationship continues to function. As I will demonstrate, particularly in Chapter 3, such shifts have been clearly discernible in European natural gas, notably exemplified in the acquisition of bargaining advantage by continental transmission companies between 1973 and the mid-1980s.

1.2.2 Limitations of the Regime Approach

Beyond the strong element of the atypical that European gas arrangements evince, and despite the NGR's 'clean' geographic and thematic delimitation, potential for confusion arises. Limiting the analysis to Continental Europe and its links to external suppliers provides some clarity, but there is enormous variegation in the needs of individual European actors. Gas plays different roles in different national energy mixes, for example; supply alternatives are not identical from state to state; consumption varies enormously; and some markets are more dependent on Russian gas than others. To speak of 'European' dependence on Russia or 'European' gas security is therefore to risk presuming a false homogeneity of need and capability, and a false unity of purpose, among European states. As we shall see, the EU's gas liberalization effort has some ameliorative potential here, but this process is far from complete, and the pronounced degree of 'gas particularism' discernible across the continent suggests that even the like units are not so alike as we might assume. Important similarities do exist, e.g., with the growing importance of Russian supplies to most of them, and the pattern of state-firm interaction explored in 1.3.3, below, and in Chapter 2. The point is that the 'regime' label is not intended to imply homogeneity among the national units that are treated as constitutents in this discussion.

A separate problem exists in the 'God's-eye' view that this broad-scope regime perspective suggests. Many sub-aspects of the topic could support worthy dissertations themselves: e.g., the state-firm nexus cited above, the bargaining dynamics of pipeline projects, or the dynamics of natural gas import and export dependence. All of these themes are touched on here, but as component parts of a larger whole. It might have been

more analytically 'clean' to deal in a more specific theme, as it might have been to focus on one group of actors (e.g., states). In taking a broader view, I accept a degree of conceptual untidiness, and have strived to align depth and breadth in a manner that provides sufficient rigour without debilitating length.

A final difficulty lies in integrating the subject matter with the selected theory. The regime concepts offered by Alt et al are nuanced and subjective, and deal to a significant extent with actor perceptions, e.g., the hegemon's view of cost in disciplining subordinates, or its use of uncertainty in the minds of would-be upstarts to deter a challenge. A more micro focus would have made adequate treatment of such subjectivity more achievable than it is here. Assuming that the notorious secrecy of the natural gas trade did not preclude a more detailed examination of a concept like perception, there would be more time and space to explore the nuances, and to distill all available indicators into some compelling argument about actor intentions while keeping the length of the discussion manageable.[30] In section 1.2.3, I adapt these regime concepts for application to the NGR, and soften them in an effort to align the concepts with the incentives, constraints and behaviour observable from the altitude selected for this analysis. The result is – and is intended to be – a general picture of the dynamics of

[30] There is general consensus about the secretive nature of the energy industry. It is nigh on impossible, for example, to quantify the available gains (i.e., Kindleberger's surplus) over which actors compete, as key elements of that equation constitute transmission companies' most closely guarded secrets. We can also assume that we are privy only to small pieces of the communication and negotiation that effectively constitute secret diplomacy in firm-state, firm-firm, and intra-firm interactions. This reality complicates the effort to assess, e.g., actor perceptions or the costs of coercion. Similarly, no complete record is available to assess instances where actors attempted to assert themselves and failed, or how they adjusted to external change. Fortunately, the record is not absolutely deficient; we can, for example, observe cases of obvious winners and losers, and while a wall of confidentiality surrounds things like pipeline carriage tariffs, pricing formulas and company strategies, things like public policies, legal proceedings, mergers, announced contracts and large projects are matters of public record.

hegemony and security in the European NGR rather than hard truth about the regime, or a detailed record of what key actors perceived or thought.

On the other hand, a general picture is one of the understated objectives of this exercise. International Relations literature has long been thin on its attention to energy matters, and while there has been periodic attention to the dynamics of the oil trade, gas has been all but ignored. It is hoped, therefore, that insight into this crucial natural gas relationship is useful and productive, particularly if it can serve as an alternative to the geopolitical and commercial interpretations discussed above. Further, the higher altitude does nothing to obscure the main dynamics of the regime – the sacrifice of a degree of nuance and depth is therefore rendered tolerable, I hope, by the identification and discussion of the regime's key drivers, which are general enough to mirror the generality in the research question. Finally, the altitude of the analysis parallels the altitude of the issues and concerns expressed in the contemporary debates around European gas security; frequently, these are not nuanced discussions, and it could be argued that an alternative view stands a better chance of succeeding if it can confront these issues and concerns without departing too far from the level on which they are expressed. Nuanced academic treatments can certainly be found – the work of Finon and Locatelli cited earlier in this chapter, or by Balmaceda, for example – but, thus far, engagement of the subject has tended to be fairly general.[31]

[31] On Balmaceda, see Energy Dependency, Politics and Corruption in the Former Soviet Union: Russia's Power, Oligarchs' Profits and Ukraine's Missing Energy Policy, 1995-2006. London and New York: Routledge, 2008.

1.2.3 Regime Concept Adaptation

The 1988 article by Alt et al explores Saudi oil production decisions in the mid-80s. Characterizing their analysis as "a qualitative illustration of reputation building in hegemonic relations," the authors counter extant views of the 1985 production hikes, which held that Saudi Arabia was either looking to alter global market structures to increase demand, to maximize market share, or to manage an OPEC-defined prisoner's dilemma.[32] Instead, they argue, the country was carrying out internal regime discipline, absorbing a decline in oil revenue to compel other OPEC members to constrain their own production. The strategy worked – where other producers quickly felt pressure, Saudi Arabia was able to run budget deficits, drawing on the large cash reserve it had accumulated in the 1970s to minimize domestic dislocations. The result was a 1986 OPEC agreement on production quotas that was much more favourable to Riyadh, and which discouraged production opportunism by other members.[33]

This 1985-86 case-study served as a vehicle for exploring the generic dynamics facing a hegemon in the management of 'its' regime; of particular interest was the interplay between the costs of coercion and the costs of challenge by allies. Stressing the importance to a hegemon of establishing a reputation for "toughness," the authors also emphasize the role of incomplete information about the hegemon's "true abilities" to would-be challengers, and argue that hegemonic instability – manifested in periodic bouts of challenge and coercion – are normal aspects of regime life, a "natural consequence of

[32] Alt et al: 1988: 455.
[33] Ibid. See in particular pages 455-459.

uncertainty and mixed strategies, which render reputation both exploitable and challengable."[34]

My purpose in drawing on the Alt et al article has less to do with any thematic convergence of OPEC oil and European gas than with the manner in which these authors break the wider literature into the concepts cited above. I do, at various points in the chapters that follow, cite points that these authors make around these concepts, but where they focused on testing their propositions about reputation/coercion/challenge dynamics, I am more interested in drawing from their description of the concepts to generate a similar 'qualitative illustration' of the European NGR, focusing on concept definitions that enable an assessment of NGR hegemony. Another difference is that where Alt et al were dealing with an oil hegemon whose pre-eminence remains largely uncontested today, I am interested in *shifts* in the dynamics of NGR hegemony.

I also draw on the Alt et al concepts to aid in defining hegemony. For purposes of this analysis, hegemony refers to a condition of pre-eminence of one actor among others in a shared realm of activity – the cross-border trade in natural gas, in our case – with pre-eminence demonstrated by that actor's qualitative and/or quantitative separation from the rest of the group in size, distribution of benefits, coercive influence, ability to capitalize on reputation, and ability to avoid hegemonic decline. The following sections take these concepts and imbue them with NGR-ready definitions, and suggest criteria by which we might assess actor dominance at various times, and assess the level of 'success' achieved by would-be challengers in the regime. To avoid the awkard use of 'Alt et al' in an adjectival sense, the concepts advanced by Alt, Calvert and Humes are referred to as 'regime concepts' throughout.

[34] 1988: 459

Asymmetry of Influence

If the analysis were limited to a like-unit comparison of states or firms, GDP or market capitalization would emerge as obvious criteria for 'size.' Here, the inclusion of private, state, and supranational actors suggests 'asymmetry of influence' as a more desirable expression of the concept.[35] Asymmetry of influence is defined for our purposes as *differentials in actor ability to use existing tools or conditions to achieve objectives*. This should encourage us to look for instances in which an actor drew on pre-existing factors – however they are defined – to meet its goals, through use of the law on an EU-firm issue, for example, or through geographic advantage in inter-firm bargaining. The definition is, admittedly, broad, but it also suggests an interesting element of kismet in the evolution of the NGR – Germany, for example, was largely able to grow in continental gas influence in the 1970s on the strength of geographic accident; both Norwegian and Soviet pipelines crossed its territory en route to other markets, providing it with gas carriage revenue that other countries could not replicate. The country also benefited from accidents in the external environment, most notably the 1973 and 1979 oil crises, which proved crucial to the expansion of the industry within Germany, providing it with the influence to lead continental cartels in the 1980s.

[35] A similar 'unlike units' problem arose in Peter Katzenstein, "International Relations and Domestic Structures: Foreign Economic Policies of Advanced Industrial States," International Organization, Vol. 30, No. 1 (Winter, 1976), p. 21. Incorporating political and economic aspects of foreign policy into a single analysis, Katzenstein distinguished between the 'divisible,' absolute gain in the profits sought be private actors and the 'indivisible,' relative gain sought by political actors in the form of power.

Distributional Conflict

The core concepts in distributional conflict are contest, gain and loss. In some cases, the contest and the gain/loss are clear (if not necessarily public), as when two firms compete over the same available rent. In others, we encounter an 'unlike units' problem where the benefits that actors typically compete for differ, between a firm and the EU, for example. Distributional conflict is therefore defined for our purposes as *actor ability to prevail in direct contests with other actors.* We are interested in instances of political or pecuniary competition in which winners and losers are most evident. Industry secrecy has a discouraging impact here, but clear examples do emerge, most notably the price clawback that the German-led importers' cartel achieved with Norway after the third oil shock. Other cases are less clear, or gains are offset by parallel events, e.g., the dubious notion that Russia 'prevailed' in distributional conflict with Germany through the formation of its downstream partnership with Wingas in the 1990s.

Coercive Influence

A focus on the ability of one actor to obtain concessions from another through awareness and/or manipulation of the relative costs suggests two channels through which to assess this balance – the costs that actors are willing to accept in coercing or resisting, and an *awareness* of the costs to others. With the NGR, our general inability to discern what actors were and were not aware of – to say nothing of whether or not the costs could be accurately guaged by anyone – limits our ability to apply this concept with the insight that the authors intended. Their definition will therefore be softened to focus more on those instances of coercion or attempted coercion that stand out clearly, with greater

emphasis on visible incentives and outcomes than on cost awareness and calculation. The concept is therefore presented here simply as *actor ability to coerce or resist other actors*. Noteworthy examples in the chapters that follow include, again, the importing cartel's bargaining efforts with Norway in the 1980s (a rare NGR example where the *awareness* of costs to others is discernible), Russia's coercion of actors in the former Soviet orbit, and EU coercion of continental gas actors through liberalization in the 1990s and 2000s.

Reputation

The connections between reputation, uncertainty and toughness are certainly visible in the NGR, perhaps most notably in the Soviet/Russian dealings with the former client states. Ideally, we would define reputation and uncertainty in terms of actor ability to create expectations and perceptions in ways that enhance or protect an actor's position, i.e., by limiting the range of policy options available to others while maintaining them for itself. Here, however, we do better to view reputation in Keohane's sense of reliability. Again, the problem derives from the same black-box issues that confound the analysis of expectation and perception in the NGR. Since we cannot be sure of what actors were and were not uncertain about, I limit this concept to *reputation*, which I define as *actor willingness to follow through on natural gas commitments to other actors in ways that enable or perpetuate joint benefit.* This approach reflects more than the desirability of a 'feel good' factor; confidence not only engenders positive actions and expectations between partners, it also raises an actor's tolerance threshold for any negative signal a partner might give off. We should therefore look for situations in which an actor

delivered on a commitment to another, with particular interest in unpopular or difficult commitments, and in situations where negative signals did no visible damage to the relationship. Germany, for example, cemented its fledgling relationshp with the Soviet Union when it chose to oppose U.S. pressure on the construction of Soviet pipelines in the early 1980s. This 'cement' remains. More recently, the big European buyers have ignored all manner of alarms about Russian intentions, never threatening to stop buying Russian gas, preferring instead to maintain a reputation as a reliable customer, and to reassure Gazprom of the market security the relationship provides. Similar affirmation has flowed in the other direction.

At the same time, Russia has consistently allowed speculation about a 'gas OPEC' or possible gas deliveries to China to surface in public discussion; it has also made official nods in both of these directions through Memoranda with Beijing, and with its participation in the Gas Exporting Countries' Forum.[36] But Moscow has been overtly half-hearted in both areas. Its discussions with the Chinese have been going on for years, but no gas has been shipped; its participation in the GECF goes back nearly a decade, but no OPEC-esque threat, circa 1973, has ever emerged. I suggest that a major factor on both fronts is that while such signals might provide a certain degree of political satisfaction in various Kremlin hallways – from the manipulation of uncertainty in European minds, perhaps – there is no desire in Russia to signal to its crucial partners a pending departure from its contractual commitments, or to damage the future aspirations of European firms.[37]

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[36] Both of these initiatives are discussed in Chapter 6.

[37] To cite an example of Alt et al 'reputation,' Russia and Gazprom clearly felt far less constrained with Ukraine, electing not only to threaten gas cut-offs, but to execute them. In so doing, Russia demonstrated toughness, and perhaps even lowered the cost of future coercion by creating an expectation in Kiev that the

Hegemonic Decline

As with reputation, the version of hegemonic decline advanced by Alt et al focuses on perception; through repeated interactions, rivals learn about a hegemon's capabilities, "eroding the reputational basis of an existing regime."[38] The authors' contention that actors have an incentive to adopt a mixed strategy in terms of 'keeping other actors guessing' is also intriguing, but its applicability to the European gas case falls more appropriately in the preceding section.[39] I intend hegemonic decline to refer more to fluctuations in actor ability to make the rules, and in actor willingness to absorb the costs. The core concept in this view of hegemonic decline is therefore *change* – I define hegemonic decline in the NGR as *decreasing actor ability or willingness to control the institutional environment*. This allows for actual declines in ability to exert control. It also allows for declining actor willingness due to, say, awareness that continued exertion of control will bring greater costs than benefits. An example of this is provided in Chapter 3 in the discussion of state withdrawal from contract negotiation, and in the increasing amount of leeway granted to industry to organize itself. It was not always so – states generally played a more direct role in the early days of the trade, but the gradual withdrawal suggests a state 'belief' that a move toward less control would produce greater benefits. Another aspect of change is suggested by Alt et al in a brief reference to the potential of environmental change – "unanticipated changes in a wider world (of

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gas could very likely be cut off again. But the catch is that any benefits to Russia have to be weighed against the costs of the downstream impact in Europe. This is likely why, prior to the 2009 cut-off, Russia launched a pre-emptive diplomatic effort in various European capitols, no doubt seeking to warn and to reassure lest the wrong kind of uncertainty creep into continental boardrooms.

[38] 448.

[39] Ibid.

trade, or whatever)" – to create instability.[40] Here, applicability to European gas is very clear; the NGR has seen massive 'environmental' changes in the form of the OPEC hikes and the collapse of the U.S.S.R. Alt et al were referring to the potential alteration of coercion costs in the midst of such changes; I will focus on the ability or willingness of actors to cope with them. To measure hegemonic decline, then, we should be interested in instances in which actors adjusted their behaviour, or refrained from an effort to exert control that might otherwise have been expected, either because greater net benefits were realized generally (declining actor willingness to assert self) or because it no longer had the means (declining actor ability).

1.2.4 Roads Not Taken – Alternate Theoretical Approaches

A number of other theoretical approaches could also have addressed the topic of European natural gas. A neo-institutional framework would have emphasized the manner in which evolved arrangements in European natural gas contributed to its longstanding stability, both within individual states and across the wider regime. The tight state-firm relations explored in this dissertation as management consensus, recast in neo-institutionalist terms, would emerge as the "effects of rules and procedures for aggregating individual wishes into collective decisions – whether these rules and procedures are those of formal political institutions, voluntary associations, firms or even cognitive or interpretive frameworks."[41] The neo-institutionalist perspective also emphasizes the role of chance and environmental change in the evolution of the regime, both of which are discussed in subsequent chapters. Immergut's discussion of "accidents

[40] Alt et al, 448.
[41] Immergut, Ellen M. "The Theoretical Core of the New Institutionalism," Politics & Society, Vol. 26, No.!, 1998, p. 25.

of timing and circumstance" is applicable here – gas firms were well positioned to manage the importation of Dutch gas in the mid-1960s, a development that enabled them to move from the management of a relatively small industry to become continental giants. The growth of the trade was aided further by the external shocks in the OPEC crises of the early 1970s; beyond justifying the expansion of the gas trade in Europe, the crises also catalyzed the acquisition of control over the trade as the decade wore on, a point explored in Chapter 3. Further, the surprising complementarity of interest that obtained among the new exporters in the 1970s proved fortuitous, providing the budding regime with a smoothness that should not have been expected. These 'accidents' combined with the institutional tendency toward management consensus in Europe, and with expansion of consumption and infrastructure, to create large, influential actors who operated with increasing autonomy, and who soon became indispensable providers of a crucial public good. These factors, in turn, contributed greatly to the stability of domestic gas arrangements across the continent. Externally, the aforementioned complementarity among exporters enabled those shifts that did occur to do so smoothly, a trend that characterized the regime up until the emergence of new pressures after 2000. From a neo-institutionalist perspective, the manner in which the institutional arrangements evolved reflected a high degree of congruence among actor interests, institutional norms and rules, and environmental factors, 'selectively favouring' both the private actors seeking to further their burgeoning agenda and state actors who saw gas as a solution to a wider set

of problems.[42] These 'complementary logics' were key contributers to the stability of the regime.[43]

An evolutionary theory approach would find parallels with the concept of 'selective favouring' of certain behaviours within certain constraints. Alford and Hibbing's concept of 'wary cooperation' is of some utility here.[44] Arguing the deficiencies of rational choice and behavioural approaches, the authors sought to reconcile self-interest and cooperation in political behaviour, highlighting the conflict between individual self-interested behaviour and that of group self-interest. In a competitive environment, they argue, an approach based on 'multi-level' selection is more promising. Their concept of wary cooperation, drawn from evolutionary psychology and experimental economics, suggests that humans are cooperative but not altruistic, and that groups are competitive but not always. This suggests an "innate inclination" to cooperate, and to participate within groups, but it also suggests that humans are innately "sensitive" to self-interested behaviour by other group members. This creates a number of traits for individuals operating within groups, including punishment of non-cooperative group members, encouragement of cooperation through norms, institutions and moral codes; and a tendency to cease cooperation if non-cooperation by others goes unpunished.[45]

This raises interesting questions for the NGR. In one sense, the multiple 'group memberships' of individual actors makes the theory difficult to apply – firms, for

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[42] Ibid, p. 20.
[43] For an innovative quantitative treatment of institutional logics, see Thornton, Patricia H., "The Rise of the Corporation in a Craft Industry: Conflict and Conformity in Institutional Logics," Academy of Management Journal, Vol. 45, No. 1, pp.81-101.
[44] John R. Alford and John R. Hibbing, "The Origin of Politics: An Evolutionary Theory of Political Behaviour," Perspectives on Politics, Vol. 2, 2004, pp. 707-723.
[45] Ibid, p. 710.

example, could be considered constitutent members of a national 'group' (the tendency toward dominant national champions notwithstanding), but they are also liked horizontally to firms in other countries. States have similar multiple linkages. The key hierarchical links are therefore problematic. But it would be intriguing to take one set of linkages in isolation, and consider the logic of NGR stability through the lens of a notion like wary cooperation. Taking the corporate links between Russia and downstream Europe, i.e., including actors in the transit states (pre-existing or inserted into the chain by Gazprom), it might be possible to consider an issue like rent-seeking and generate hypotheses around the effect on group integrity as the percieved 'propriety' of rent-seeking among actors increases or decreases.[46] For purposes of the approach adopted in this dissertation, one could draw on evolutionary theory to examine the points of difference selected for 'phase' differentiation, as discussed below – that is, do the points of separation in the NGR's evolution align with shifts in the dynamics of individual actor interest maximization versus group objectives? Viewed in this light, a point of separation missing in the regime approach adopted here could be the shift in bargaining advantage in the mid-1980s from exporters to importers, as explored in Chapter 3. Similarly, the change in policy and behaviour that encouraged the changeover from Yeltsin to Putin as a point of separation could have been considered in terms of perceived non-cooperation – by Russia concerning the traditional powers to the West – that had to be re-equilibrated

[46] Alternatively, it could be possible to look within a single state, and consider the interest-maximizing strategies of firms against the 'altruistic' requirements on states, e.g., to protect consumers from exploitation and generate state rents while simultaneously maintaining the commitment of firms to the domestic cause, and satisfying the liberalizing pressures of the EU. This could lead to evolutinary theory-based propositions concerning the limits of state 'leeway' in reconciling these opposing forces.

for Russia to accept that 'altruism' within the East-to-West 'group' was sufficiently evident to merit Moscow's continued cooperation.[47]

Political Economy offers a number of avenues into this topic, but the disparate nature of this area makes it challenging to settle on a particular theoretical strand. We could, for example, draw on neoliberal political economy to frame an analysis of EU efforts to regulate gas in Europe, but would still have to contend with the other, over-lapping 'political economies' that are discernible in the regime. As was the case with the neo-institutionalist possibility cited above, a historical institutionalist approach, concerned with the patterns and behaviours shaped by the interplay in a given environment of the institutional 'backdrop,' actor interest and the requirements of the gas trade, could suggest an interesting analysis, perhaps via the concept of path-dependence, in the development of the NGR. The same logic could be applied to the carry-over in the Russian approach to European gas relations from the Soviet era into the Yeltsin years, and arguably even in the Putin era as well; many things have changed, as is argued here throughout, but there are a behavioural similarities as well. Neo-Marxian approaches could always be drawn upon to critique the nature of state-firm relations in Western Europe but, ironically, the most suitable venue for an analysis of dependency likely lies in Central Europe, i.e., in the former East Bloc states where Russia's monopoly on supply is augmented by an increasing level of control over gas infrastructure, firms and markets throughout the region. In sum, the potential for a viable approach to be drawn from Political Economy is considerable, but this approach would be better suited to more

[47] Gazprom's activity in the former republics and Central Europe would complicate this tidy construction, but this would raise the possibility that individual consideration of other-member adherence to cooperative norms is neither one-dimensional nor singular – actors may have reason to develop different tolerances in their perceptions of norm-adherence by different group members, and they may change their views of a single other member across different frames of time.

isolated aspects of the overall relationship. The complex nature of the NGR – the variegation, overlapping interests/behaviours, and the number of 'sub-games' that are evident within it – has encouraged me to try to position this subject matter within one theoretical frame. For this and other reasons, I maintain that a regime approach offers the most logical means to this end.

1.3 Research Design

This dissertation aims to answer the question of whether Russia is acquiring a position of hegemony in European gas relations, and whether its ambitions represent a security threat to Europe. To define hegemony, and to assess actor acquisition of such a position, I draw on the regime concepts and criteria, defined earlier and laid out in Table 1.1, below. The effect of the concepts is cumulative; in isolation, they tell us little about an actor's position with respect to others', but together they provide a useful picture of the relative balances among actors in influence, extraction of benefits, ability to coerce or resist coercion, etc. Where an actor demonstrates a pre-eminence in these areas, I characterize it as hegemonic. Also, I treat 'actors' in the expanded sense of a *management consensus* that emphasizes state-firm cooperation within a national context, a point elaborated in 1.3.3, below, and in Chapter 2. Once the larger methodological approach is expanded on, I discuss how these criteria and indicators will be utilized in the core of the analysis.

Table 1.1 Regime Concepts, Definitions and Assessment Criteria

Regime Concept	Definition and Assessment
Asymmetry of Influence	• *Differentials in actor ability to use existing tools or conditions to achieve objectives within the regime*. • use of bargaining advantage, the law, geographic position to achieve goals.
Distributional Conflict	• *Actor ability to prevail in direct contests with other actors.* • price negotiation (clear), political contests between actors (less clear)
Coercive Influence	• *Actor ability to coerce or resist other actors.* • Cases in which an actor visibly attempted to compel or extract benefits from another, or resisted similar attempts by others.
Reputation	• *Actor willingness to follow through on natural gas commitments to other actors in ways that enable or perpetuate joint benefit.* • Instances in which commitments were followed through on despite difficulty, or in which negative signals did not visibly damage the relationship.
Hegemonic Decline	• *Decreasing actor ability/willingness to control the institutional environment*. • Instances of behavioural adjustments or inaction by actors that can be connected to changes in the awareness of net benefits or to an inability to assert influence.

1.3.1 Methods

It would be possible to break the NGR down into cases for analysis, but this approach is poorly suited to our purposes. Cases would be difficult to delimit without an overt focus on one aspect of the regime, as Victor, Myers-Jaffe and Hayes did with

pipeline project decisions in their excellent 2006 work, *Natural Gas and Geopolitics*.[48] It would also be possible to adopt a comparitive approach, selecting specific states and identifying cross-cutting questions to structure the analysis. The difficulty this presents in our case is the aforementioned gas 'recipe' mixture across Europe; because the gas specifics differ so widely from country to country, a rationale for the selection of states is problematic and, again, ill-suited. The same is true of a more conventional, economistic focus on demand or supply – there is no shortage of such analyses, and while they tend to resonate with those schooled in energy economics, they are frequently mystifying to others, and do not provide the overall NGR picture that is sought here.

This analysis therefore attempts to apprehend the NGR as a whole from the high analytical altitude suggested earlier: a geographically broad realm of activity comprising thematically connected actors from different levels of analysis. This realm is evolving, and I seek to identify patterns of dominance, shifts, and drivers of change over time. An historical-comparitive approach is therefore selected, one designed to work chronologically to explore "combinations of social factors [that] produce a specific outcome." Our 'combinations of factors' consist, most prominently, in the interplay of geographical, commercial and political imperatives that have determined the extent to which actors have been able to achieve hegemonic status or to challenge it. As Neumann suggests, an aim of the historical-comparitive approach is to reveal "the connections between divergent social groups" and to compare "the same social processes and

[48] David G. Victor, Amy M. Jaffe and Mark H. Hayes (eds), Natural Gas and Geopolitics: From 1970 to 2040. Cambridge: Cambridge University Press, 2006. See in particular Nadejda M. Victor and David G. Victor, "Bypassing Ukraine: Exporting Russian Gas to Poland and Germany," pp.126-168.

concepts in different cultural or historical contexts."[49] Thus paralleling our interest in divergent groups in an evolving sphere, this study opts for the 'different historical contexts' approach, and is structured chronologically.

The selected altitude imposes considerable thematic diversity on the data selected for inclusion, and no attempt is made to categorize or 'weight' them. Instead, the analysis seeks to extract critical elements from the broad canvas of European natural gas activity, and draws on these to answer the research question. It begins with the initial conditions of the trade in the mid-1960s, explicating the budding regime by outlining key aspects of its initial design: market structure, state-firm connections, pricing behaviour, infrastructure and contract structure. From there, the analysis moves forward chronologically, drawing from the literature to identify and explore the principal changes that occurred. Clear examples stand out – the Norwegian and Soviet entry into the regime in the 1970s, for example, or the Ukraine crises – and are obvious objects of study. I also include examples that have been less noticeable but still impactful.

The utility of the Alt et al concepts lies in their cumulative effect. Prudently defined and logically applied, these five concepts separate the dynamics of the contest for hegemony from the broader background and, in turn, offer a compelling answer to both parts of the research question. The first part – is Russia in the process of acquiring hegemonic dominance in the NGR – is addressed in Chapters 3 through 6. The second part – do Russian ambitions constitute a security threat to Europe – is addressed in Chapter 7.[50] A more detailed structure and chapter summary is provided in 1.4, below.

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[49] Both quotations from W. Lauwrence Neumann, Social Research Methods: Qualitative and Quantitative Approaches (3rd Edition). Needham Heights, Mass: Allyn & Bacon, 1991, p.383.

[50] This separation is undertaken because the roots of the second part of the question lie in the first, which, to be answered, requires the sort of elaboration it receives here. Only after establishing by the end of

This approach does, I suggest, enable a compelling argument for German hegemony to be made, suggesting that Germany rose to a hegemonic position in the 1970s and consolidated this position in the 1980s. The question regarding possible Russian hegemonic dominance must therefore address the question of whether Germany has been dislodged – a point that many analyses do not address. Again, I contend that the five regime criteria employed here serve as a means to 'measure' hegemony in each phase, and that this analysis suggests no erosion of the German position. What the analysis does not contain is a clear picture of what that erosion might look like. As a counterfactual, then, I suggest that Russian hegemony could be assessed by following the same approach, and would be demonstrated by some combination of the following traits.

A Russian asymmetry of influence – again, *differentials in actor ability to use existing tools or conditions to achieve objectives* – is, as will be argued in Chapters 7 and 8, indeed becoming evident in Central Europe. For more systemic Russian hegemony we would need to see this extend to Western Europe, beyond the Wingas partnership discussed in Chapter 5. Gains within the EU and within the markets of the main continental buyers would be a clear indicator, e.g., equity in the large distribution or transmission firms, or reversals on EU liberalization. Russian sources are now asserting that the recent German decision to eliminate nuclear power can only intensify European need for Russian gas, a development that, if true, suggests ability to capitalize on changes in the external environment.

Russian *ability to prevail in direct contests with other actors* – distributional conflict – could be reflected in possible points of dispute that could arise. When oil prices

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Chapter 6 a position on what it is that might be 'threatened' can we begin to consider the security implications.

fell after the financial crisis of 2008, for example, rumblings were heard about de-indexing gas from the price of oil, a notion that would be highly controversial throughout the rest of the regime. More generally, any new set of arrangements that saw higher prices or additional rents favour Russia at Western expense would indicated success in distributional conflict with downstream actors. Again, we have seen some evidence of Russian success in this area, particularly in the policy realm through the rejection of the Energy Charter Treaty. Russian gains in the area of coercion costs – defined as *actor ability to coerce or resist other actors* within the context of visible incentives and outcomes – are also evident, particularly in Central Europe and the former Soviet republics, where Gazprom has been able to leverage gas debts into asset acquisition. It has also been able to invest in the Nord Stream pipeline (discussed in Chapter 6), and obtain Western investment, for a project that will put new pressures on the current transit states, Poland, the Czech Republic, Slovakia, Hungary and Ukraine. We have not yet seen what kind of leverage Nord Stream might produce for Russia, or to what extent Gazprom will be willing to exercise it, but it seems unlikely that it will be business as usual in these states.

This feeds directly into the role of reputation and uncertainty. For Western states, I defined this concept in terms of Keohane's emphasis on reliability, and it could be argued that Russia has retained the confidence of its major buyers in Western Europe. But trends since 1991 suggest that the Alt et al sense is more appropriate – here, I would define reputation and uncertainty in terms of *actor ability to create expectations and perceptions in ways that enhance or protect an actor's position, i.e., by limiting the range of policy options available to others while maintaining them for itself.* Again, Nord

Stream emerges as an ideal example of Russian ability to generate angst – with German (and French and Dutch) cooperation – in existing transit states, and no small volumes of concern have been expressed about its likely impact on gas price and transit fee negotiations in these countries. The exercise of Gazprom's new leverage is anticipated.

In terms of *decreasing actor ability or willingness to control the institutional environment*, Russian hegemony would suggest some sort of withdrawal by the German incumbent or by the EU. In the latter case, we have certainly seen reticence where engaging Gazprom head-on is concerned, as is explored in Chapter 7. But liberalization is pressing ahead, with the major parties seemingly less keen on direct confrontation than on manoevering to find loopholes and obtain exemptions. It is argued in Chapter 6 that Western firms and states seem ready to concede Russian influence in Central Europe, but while this could be considered a deliberate restraint on German hegemonic expansion, it is less a case of German hegemonic decline than one of a Russian return to its former levels of influence. Still, whether Germany has the same ability/willingness to control the institutional environment is a contentious point. Some assert that its 'special' relationship with Russia has deepened to the point where Gazprom, not the traditional giants of the European downstream, is writing the script. The Russian firm has retained the support of its major buyers in preserving traditional mainstays like the long-term contract and the destination clause (explored in Chapter 2), practices that run counter to the liberalized regime envisioned by the EU – but, crucially, it is difficult to cast this as either Russian influence on downstream actors or the interests of downstream actors themselves.

In sum, the sorts of 'gains' that appear to be adding up on the Russian side are significant, and are serving to create the emerging state of co-hegemony posited in

Chapter 7. But the key issue is downstream influence in Western Europe, where the traditional powerhouse firms still dominate enormous national markets, protected from competition by their national governments. Until Russia demonstrates the ability to realize meaningful gains in this area, or until it is able to re-write the wider systemic rules (e.g., price indexing) and compel Western actors to accept them without driving them toward a massive program of LNG expansion, it is likely that co-hegemonic status is the most they can expect. It is noteworthy that the regime has continued to operate smoothly despite these dynamics, and the implication is that those changes that have occurred were changes that the NGR had room for – in other words, nothing has happened in the European downstream to disrupt the flow of gas, to diminish actor satisfaction with profit levels, or to drive them in any overt way toward alternative supply options. An action that threatened any of these things would, by definition, threaten the stability of the regime; the fact that this has not occurred suggests that actors are more enamoured of the status quo than with the gains to be made through disruption. In Alt et al terms, it would appear that the costs of overt challenge, by Russia to the existing hegemon in Germany, have not yet been deemed worth the potential benefits.

1.3.2 Source Material

Materials and sources drawn upon for each of these periods differ but, generally, the analysis relies on open-source information as opposed to primary research, for two reasons. The first centres around language and geography – overseas research was conducted at the Centre for Environmental, Petroleum and Mineral Law and Policy (CEPMLP) at the University of Dundee, Scotland, in the Summer of 2009, utilizing the

specialized library resources offered by the Centre. The time spent at CEPMLP was very useful in filling in many of the historical blanks, and in exploring the legal aspects of the subject, a specialization of the Centre. Additional information was acquired at the annual 'Gas Day' symposium of the Oxford University Institute for Energy Studies (OIES). The Oxford sessions, held in what is likely the world's top research centre for natural gas matters, offered many opportunities for informal conversation in addition to the presentations themselves. Several of these presentations are cited herein.

The second reason for the emphasis on secondary, open sources derives from the culture of secrecy that seems characteristic of all energy companies, including those in the NGR. External researchers are often viewed with extreme suspicion, and the large European gas firms, like the large oil multinationals, do not encourage meaningful access to the key experts or decision-makers in their ranks. Furthermore, such individuals, as in the military or intelligence fields, are generally not at liberty to be candid on company matters – this is likely true of many private-sector actors but, again, the energy sector is notorious, referred to by Oxford's Jonathan Stern as a "graveyard for serious academic study," with inherent difficulties "compounded by the limited information available (frequently bordering on obsessive secrecy) in the crucial economic areas of costs and prices."[51] Fortunately, there has been no shortage of commentary in scholarly, political and media circles on matters related to this dissertation, and the electronic resources of the European Union are voluminous; these have been drawn upon extensively in the chapters that follow.

[51] Jonathan Stern, untitled review of three new publications on natural gas markets in International Affairs, vol.65, no.1 (Winter, 1988-89), pp.137-138.

It is interesting that each of the three phases explored here seemed to be dominated by different styles and media of scholarship. In the first phase, I have drawn heavily from a small number of books, the first major efforts to explore what was, at the time, a new industry.[52] By the time of the second phase (1990-1999), scholarly attention had shifted to the revolutions of 1989 and the demise of the U.S.S.R., with less attention to how the gas trade functions than to how these radical political changes affected commercial and political relationships. Here, the rapid pace of events suggested periodicals, news reports and International Governmental Organization (IGO) data as the most useful sources of information. This continued in the third phase, but both the scholarly focus and medium of choice had shifted again – the dominant themes of the post-2000 era were energy security and the two initiatives of the EU: liberalization and the Energy Charter Treaty. The second and third phases therefore feature less emphasis on books and edited collections than on periodicals, IGO and think-tank reports and – crucially, in the third phase – electronic media articles. The latter have been particularly important because of the sheer pace of events.

1.3.3 Scope and Constituent Elements of the Study

Thematically and geographically, we are concerned with the natural gas trade in Europe. A focus on the terrestrial aspects of this trade limits our attention to pipeline gas, a decision that precludes serious attention to liquefied natural gas (LNG) which, in important ways, features trade dynamics that more closely resemble those of oil. This exclusion is attributable to the overwhelming ratio of gas that is moved to/within Europe

[52] Two notable works in the mid-80s – Davis' *Blue Gold: The Political Economy of Natural Gas*; and *Natural Gas in Europe: Markets, Organization and Politics* by Estrada et al – were pioneering efforts to explain the workings of the trade.

by pipeline to that moved by ocean-going LNG tankers.[53] Just as the geographic scope is delimited by the scope of existing pipeline networks, the temporal scope is defined by the span of time between the advent of trans-border delivery of natural gas in Europe, from the Groningen fields of the Netherlands in 1965, to the present day.

The 'who' of the analysis – i.e., 'actors' and 'Europe' – is more difficult to define. It is tempting to think in terms of the European Community and EU, but this group has changed dramatically over the time period covered here, and would exclude important non-member states, most notably Norway. Also, it would include the United Kingdom, which this analysis does not seek to do. This omission is made with hesitation. On one hand, the U.K. is unique in NGR terms: it has never received Russian gas; it relies on open markets and trading rather than long-term contracts; and it sits apart from the continental dynamics with which we are concerned. On the other hand, both Gazprom and Wingas have established trading operations in the country, and the U.K. impact on the continent is changing. It has always had potential to affect pricing through its role as a rival bidder to Continental Europe (see the brief but important mention of the British role in negotiations between Norway and the continental cartel in the 1980s in Chapter 3, for example), and the opening of the Interconnector pipeline in 1998 gave it a direct physical link. More recently, in 2006 and 2007, both Gazprom and Wingas have signed agreements through the Danish firm DONG to swap gas for open trading in the UK, a market which Finon and Locatelli refer to as "less profitable" for Russian sellers than

[53] In 2008, the European gas import ration of pipeline to LNG deliveries was 7.1:1. If Spain (which alone accounts for more than half of all European LNG receipts) is excluded, the ratio approaches 15:1. British Petroleum, BP Statistical Review of World Energy: June 2008, p.30. Accessible online at http://www.bp.com/statisticalreview.

other European markets.[54] Still, it is interesting that Russian decision-makers would think it desirable to go to these lengths and, as North Sea supplies dwindle, it is likely only a matter of time before such swaps become everyday transactions, or before the country receives actual Russian gas.[55]

Focusing on continental Europe, then, I devote particular attention to the German case. Its central commercial actor – Ruhrgas, later E.ON-Ruhrgas – was the largest firm in the largest market in Continental Europe, leader of the cartels that emerged in the 1980s, and the key link to Russian gas for Western Europe. The German position has always been unique among continental gas importers. Nearly all of the major pipelines cross its territory, and it remains the largest consumer of gas on the continent. To some extent, attention to the German case – and to Ruhrgas specifically – comes at the expense of other states and other firms but, even today, Germany and E.ON-Ruhrgas are the central players logistically, commercially and politically. In the later chapters, I posit an expanded NGR to reflect the growth of the EU itself. The most notable new regime members are the countries of the 'Visegrad 4' – Poland, the Czech Republic, Slovakia and Hungary – because these countries house the main pipelines that allow Russia to supply the NGR. My treatment of 'Central Europe' in Chapter Seven focuses on these states, overtly avoiding reference to 'Eastern Europe,' a label that has come to be seen as

[54] "Russian and European Gas Interdependence," p.18, note 13, and p.25, Box 2. See also the DONG website, "Agreement Between DONG Energy – Wingas and Wintershall," 5 February, 2007, accessed 14 January, 2011, from: http://www.dongenergy.com/EN/Media/releases/Pages/omX%20details%20page.aspx?omxid=285427.

[55] I am indebted to Dr. Jerome Davis for personal observations that qualify the decision to focus on Continental Europe to the exclusion of the U.K., and for suggestions on the specific points mentioned here that suggest an increasing importance of the U.K. to the European NGR. Other important points raised in these discussions include the likelihood of greater U.K. involvement in the NGR as North Sea supplies diminish, and the demonstration effect of its success with liberalization since the 1980s.

derogatory in the region. Central Europe is intended throughout to refer to the new EU states, Baltic members excluded, that were formerly part of the East Bloc.[56]

National actors are treated as encompassing more than governments and leaders. Drawing from a rich literature exploring the consensual tradition in European state-firm relations, I use the term *management consensus* to express the cooperative approach to gas matters between governments and firms, and the formal and informal linkages between them. To be sure, the term is an abstraction – I do not present it as any kind of conceptual innovation, nor do I intend to downplay the authority of states in European gas decision-making, or the profit motive of firms despite their provision of something akin to a public good. The term is utilized for convenience, to account succinctly for the nuance behind free-standing labels like 'actor' or 'Germany' in the discussion that follows. In this light, national positions are more usefully viewed as syntheses of political and commercial imperatives within national jurisdictions than strictly as the political ordering of commercial arrangements, or as the commercial instrumentalization of states. In the main, then, the individual countries referred to, like the generic term 'actor' that appears throughout, are intended to be imply complex, national agglomerations producing gas policy wholes greater than the sum of the parts. In Chapter 2, I expand on what is meant by the term, and why it aids in answering the research question.

In the same spirit, 'Gazprom' and 'Russia' are used fairly interchangeably. Neither entity is remotely homogeneous and, though few works make the point, the interests of the firm and the Kremlin do not always align.[57] However, important factors

[56] This group is 'almost' exclusive because Bulgaria, which is not on the main pipeline routes, has been the locus of dynamics that are highly illustrative. This point is explained in greater detail in Chapter 7.

[57] For a detailed and readable examination of the firm, see Jonathan Stern, The Future of Russian Gas and Gazprom. Oxford: Oxford University Press, 2005. On the limits of Kremlin/Gazprom harmony, see an

provide semantic leeway: Gazprom, despite its conversion to a joint-stock company in 1992 and its current listing on the New York Stock Exchange, is predominantly state-owned, a condition unlikely to change in the foreseeable future; the Kremlin has made no secret of its linkage of natural gas exports to the country's geopolitical position; the company is by far the greatest single contributor to the Russian treasury; and high-level interpersonal links exist between the Kremlin and the firm, most notably among Prime Minister Putin, President (and former Gazprom CEO) Medvedev, and the current CEO Alexey Miller.

1.4 Structure and Chapter Summaries

The dissertation is divided into eight chapters. Following this introduction, Chapter 2 is devoted to background for the natural gas trade. The constraints imposed by the physical properties of gas and by the distance between reservoirs and markets are explained, and their impact on mechanisms of market exchange are discussed. The management consensus is expanded upon, and background to the European case is provided: its noteworthy features of state-firm relations, production, consumption and position of gas in the overall energy mix, and the major pipeline routes that supply the continent. The intent of the chapter is to explain how the trade works and why.

Starting from the initiation of the Netherlands' gas exports in 1965, I trace the evolution of the NGR up to 2009. Two shifts – the Soviet dissolution in 1991, and the ascension to power of Vladimir Putin in 2000 – constitute the most decisive turning points in the history of the NGR, the former because it essentially destroyed the network

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excellent article by Andreas Goldthau, "Resurgent Russia? Rethinking Energy Inc.," Policy Review, February/March, Issue 147, pp. 53-63, 2008.

of interests and incentives that structured gas arrangements in the transit states between the Russian border and Western Europe, thus suggesting immense potential for disruption that did not occur; the latter because it heralded a major shift in Russian 'gas ideology' from either of the preceding phases, and again encouraged an intuitive expectation of disruption which, again, has (by and large) not occurred. If these are acceptable as suitable points of separation, we are left with three distinct 'phases' in the evolution of the regime.[58] Phase one traces the long period from 1965 to 1990. Phase two moves from the Soviet dissolution in 1991 to 1999, while phase three traces the Putin/Medvedev era from 2000 up to 2009.[59] My review of these phases constitutes the core of the dissertation, and is spread across Chapters 3 through 6. Each comprises a summary of the key developments and shifts in that period; and the application of our Alt, Calvert and Humes regime criteria to an analytical object suggested by the summary.

Chapter 3, which analyzes the first phase of the NGR (1965-1990), moves from the market arrangements put in place by Dutch actors – many of which are still evident today – and into an interplay of shock and adjustment that saw German hegemony take shape from the mid-1970s onward. While the NGR did achieve stability during this period, it did so amid radically changing conditions, most notably the entry into the regime by Soviet, Algerian and Norwegian suppliers, and less overtly with a shift in bargaining advantage from exporter to importer by the mid-1980s. The stability is the interesting aspect of the German ascension – no small feat given the de facto eclipse of

[58] A similar exploration of Euro-Russian gas dynamics, discovered by the author following submission of the final draft version of this dissertation, is carried out by Stacy Closson who, interestingly, selected identical points of separation to structure her analysis, See "Russia's Key Customer," in Jeronim Perovic, Robert W. Orttung and Andreas Wenger (Eds), Russian Energy Power and Foreign Relations: Implications for Conflict and Cooperation. London: Routledge, 2009, pp. 89-108.

[59] Settling on a 2009 'cut-off' was one of the more difficult temporal scope decisions of this exercise, mainly because the situation is still in considerable flux, with important developments still unfolding. The chapters that follow do occasionally refer to events that have occurred in 2010 and 2011.

the Dutch and Norwegian positions that this development entailed, and the counter-intuitive shift in the balance of influence from exporter to importer that occurred. After applying our regime criteria to make the case for German hegemony, I propose as an explanation for the resulting stability that the German-led NGR provided benefits to other actors – investment, transmission and negotiating leadership, primarily – that made it far more logical for them to accept the German ascension than to resist it. Other actors could have invested in alternate infrastructure, as the Czech Republic did after its defection from the Russian orbit in the 1990s, but did not. Ultimately, accepting what Germany was offering was simply easier and cheaper than resisting it on principle. I also make the point that any parochial impediments to this acceptance were mitigated by cross-ownership in the European energy trade; the equity linkages between major oil internationals and continental transmission firms were pronounced and, as a number of observers have suggested, the leadership of these firms operated less like competitors than an exclusive continental 'club.'

These dynamics created a status quo that lasted until the advent of the second phase (1991-1999). Where the dominant theme in phase one had been one of (surprising) stability, phase two featured new trends that brought change and uncertainty. Chapter 4 focuses on the impact of the Soviet dissolution on natural gas relations in the former Soviet Union (FSU) and former East Bloc countries. After January of 1991, Russia's and Gazprom's infrastructural and commercial arrangements were thrown into massive disarray – thousands of kilometers of domestic pipeline were now owned by foreign entities in the Near and Far Abroad; a serious cash shortage in Moscow went unaided by subsidized gas prices in Russia and the former Republics; and the company had to discern

and respond to the differing market realities in this range of new neighbours, and to implement some sort of strategy. Chapter 4 explores these changes, and then turns to the problems that arose for Russia almost immediately in the troubled Ukraine, Russia's largest gas customer (in volume if not in revenue) and its crucial transit route to Europe. It also explores the range of responses to the new situation that Russia coped with in these years – the Czechs deemed it worthwhile to pay full European price for its Russian gas, and invested in an eastward-flowing pipeline for North Sea gas, while the Slovaks and Hungarians did neither, continuing to accept a low gas price from the Russians in exchange for their own gas assets. Belarus sacrificed its pipeline infrastructure and generally acceded to the wishes of Moscow and Gazprom but the Ukraine did not, drawing on its transit-state counter-leverage to bargain with its Russian suppliers instead.

Chapter 5 also deals with phase two, but focuses on Europe instead of Russia. Here, I trace the sea change that occurred in European gas markets when BASF, a chemical conglomerate and very large Ruhrgas customer, took the extraordinary step of investing in its own pipeline network, and struck an equally extraordinary agreement with Gazprom in 1990 that saw the end of Ruhrgas' import monopsony. Next, the chapter explores the strong push the expanding EU made on the Energy Charter Treaty (ECT), an issue that required Moscow to walk a fine line between encouraging the atmosphere of support that existed with the West and placating domestic interests that increasingly saw the Treaty as a threat to Russian interests. Finally, I address the EU push for gas market liberalization that, between 1988 and 1991, moved from philosophical discussion to concrete legislation. Firms who found this legislation distasteful lobbied hard – and to some extent, successfully – to dilute its impact, but the EU was persistent, and moved

from its 1991 gas Transit Protocol to its first Gas Directive in 1998, a progression that imposed intensifying constraints on the industry.

Applying the Alt et al criteria to the impact on German hegemony of EU assertion and market incursion by Russia, I conclude that NGR stability and German hegemony were maintained because the status quo established in phase one was not altered by changes in the former Soviet sub-regime, or in Europe, to a point that actors could not accept. Markets continued to grow, and the connections of the major actors to Gazprom and Russia only deepened. In fact, with the exception of the Ruhrgas move into the former East Germany and the creation of an eastward-flowing pipeline for the Czech Republic, Germany seemed disinterested in the geographic and commercial space between it and the Russian border, and suffered no discernible damage from Russia's confused sitation. Similarly, while gas actors were slow to respond to liberalization, they did 'water down' the Transit Protocol and slowed the development of the first Gas Directive (which was not passed until 2003) in ways that protected their core practices, essentially buying themselves time to regroup and, if necessary, adjust to what was looking increasingly like the inexorable advance of liberalization.

Chapter 6 explores the eventful third phase (2000-present). Here, uncertainty evolved into a more identifiable *restructuring* as Vladimir Putin initiated new Russian assertion in gas matters, a development with drastic impacts on the former Soviet republics, and that challenged a number of traditional norms in the energy world. The lack of clarity about the motives behind these developments is pronounced, and is largely responsible for the gas security angst discussed above. But while the notion that Russia is leveraging its gas and pipeline endowment to exact political concessions from European

actors is disputable, the notion that Russia has entered the contest for control over how the game is played is not. A second form of restructuring was launched from Brussels, with the EU passing the first and second Gas Directives in 2003 and 2009, continuing an evolution in continental gas governance that, though not yet fully realized, has likely acquired too much intertia to be reversed.

The chapter begins by exploring the regrouping undertaken by Russia, tracing the demise of its ECT ratification, and exploring both the 'Gas OPEC' and China export options. The discussion moves to the infamous confrontations with Ukraine in 2006 and 2009 before examining Gazprom's acquisitions in the European periphery. The chapter then addresses the EU's advances on liberalization – most notably in the Second and Third Gas Directives – and summarizes the position of transmission companies in the 2000s, with attention to their engagement with EU legislation, and their responses to a changing regulatory environment. Finally, the chapter explores the major new pipeline initiatives under discussion: the Nord Stream, Nabucco and South Stream projects.

The key observation in Chapter 6 is, as the analysis of the Alt et al criteria for German hegemony suggests, is that while nothing has occurred to *dislodge* Germany from its incumbent position, Russia has gained ground in relative terms. This gain is presented less as a zero-sum loss for Germany than as one that occurred within a changing, expanding NGR. Russian gains in Western Europe have been limited, but the story could be different in Eastern Europe, where Russia and Gazprom have drawn on a range of structural and historical conditions to gain ground through partnerships, asset acquisitions, and continuing gas monopoly. Ironically, this ability could be enhanced by Russia's very inability to make gains in the larger gas-consuming centres – faced with the

need to maintain a positive and stable working relationship with Gazprom, and lacking sufficient commercial incentive to project pipelines into the region, the larger European firms seem prepared to cede ground in the east that they might otherwise have sought to dominate themselves. This leaves something on the table for Gazprom, a useful concession given European actors' reluctance to concede assets in their own national markets.[60] Though it would come as little comfort to the Visegrad countries, disproportionate Russian influence could act as something of a 'safety valve,' relieving the pressure of increasing Russian aspiration and playing an important role in the re-equilibration of the regime.

These dynamics, along with the deepening German-Russian interconnections in cross-ownership, in Nord Stream, in Wingas, and even in interpersonal relations, suggest that we consider viewing the NGR in terms of an emerging German-Russian 'co-hegemony.' Having tailored a definition of hegemony to our NGR-specific purposes in 1.2.3, above, to emphasize 'a condition of pre-eminence' in the criteria identified by Alt et al, I suggest that 'co-hegemony' would simply allow for two or more actors to be viewed according to the same criteria as qualitatively and/or quantitatively superior. I suggest three key features to separate co-hegemony from (a) hegemony, and (b) from what might otherwise be considered a particular variation of the Alt et al 'alliance' pole of regime cooperation. The first is the obvious one just cited – rather than one pre-eminent actor, there are two or more, separated from others by superiority in the Alt et al criteria, with the added point that the term does not necessarily imply equal standing. Second, the position of the co-hegemon has not necessarily been achieved through the

[60] If West European firms have ceded ground, 'Western' firms proper have not – there are now indications that Exxon Mobil is acquiring shale gas holdings in the region.

challenge and acquiescence that Alt et al discuss; rather, it could derive from regime changes (i.e., new opportunities) that widen the benefit surplus, but which are not necessarily available to the other members of the regime. The aggregate result in such a situation could be a relative gains loss for the hegemon, but this could be acceptable in absolute terms if the new situation suggests new opportunity while maintaining (a) the relationship with other actors, and (b) the existing flow of benefits from the activity that the regime is based on: gas flow and profit, in our case. Third, there should be an element of exclusive cooperation between the co-hegemons, something separate from the general cooperation in the regime, in either degree or character.

These features are applied to the German-Russian relationship in Chapter 6 (section 6.5.3). Moreover, I suggest, this new leadership structure will be accepted by other actors because, on almost every level, it represents an extension of the status quo that has been taking shape over the past decade. It is an extension in its consistency with the increasing importance of Russian gas – another pipeline that brings it is surely welcome, and the fact that it crosses German territory is certainly nothing new. The 'almost' is inserted because Nord Stream *is* something new – bypassing other EU states to link directly to Germany, the pipeline offers something that has not yet been seen in the NGR. However, the element of novelty is palliated by recent changes in the ownership structure that have seen Gaz de France Suez and Gasunie acquire stakes (though Gazprom and Wingas remain the dominant shareholders).

In Chapter 7, I address the security aspect of the research question, providing scope and manifestation of 'security threat,' and briefly reviewing the scattered treatments of the security question in the literature. I then seek to ground an assessment

of threat in the data and observations of the preceding chapters by extracting three 'critical traits' of the regime: the importance of mutual assurance among actors; the impact of state-firm management consensus; and high coercion costs. These traits are portrayed as key drivers of the regime integrity or 'institutional glue' cited earlier. Against these, I assess three potential manifestations of 'threat' – price manipulation, asset ownership coercion, and demands for political concessions. The outcomes of this analysis suggest a pattern of general disincentive for Russia to attempt coercion in Western Europe. Under certain conditions, which I address, this situation could change, but for the moment, Russia is lacking both the motive and the means to employ the vaunted 'gas weapon' in a way that could improve on the benefits it is realizing from the status quo.

The second half of Chapter 7, however, suggests different dynamics for Eastern Europe. Focusing on the Visegrad countries of Slovakia, Poland, Hungary and the Czech Republic, I argue that while the assertion of tension in the region is reasonable, the assumption that tension will lead invariably to problems is less so. None of the principal drivers of the tension – the EU, Gazprom, East European governments, or western firms – have a better reason to engage in gas brinkmanship than to adopt an incremental approach to dispute resolution, to compromise, and to adjust. Moreover, the Visegrad countries are mobilizing, acting through the 'Visegrad Group' or 'V4' to maximize supply diversification and interlinkage options, working toward a pipeline network that runs from the Adriatic to the Baltic, complying with the Gas Directives in a robust fashion, and looking for alternatives like the Polish plan for an LNG terminal on the Baltic coast. The section concludes with a more detailed look at two examples of

burgeoning tension in which the EU has clashed – however mildly, at this point – with local governments, firms and Gazprom. The picture that emerges is encouraging; in both cases, clear contravention of EU rules met not with sanction, but with patience and iteration.

The dissertation concludes in Chapter 8. The preceding chapters are reviewed, theoretical implications assessed, and a short exploration of future NGR directions and possibilities for future NGR research follows. To be sure, things are unfolding on very kinetic terrain – definitive indications of how arrangements will take shape do not exist, but through the exploration of the dynamics from 1965 to the present day, I will identify the factors most likely to orient future arrangements in one manner or another. There is little convincing evidence that Russia is achieving hegemonic dominance within the regime, or that its current ambitions represent a threat to Europe. A principal impediment to Russian ambition in Europe is that something substantial is in the way – European gas actors are large, well entrenched, and embedded in tight, nationally segregated state-firm relationships, a reality that makes it very unlikely for them to be dislodged or superseded, and by and large they have options. Moreover, there is no obvious reason for Russia to try; the country lacks viable alternative markets, and its reliance on gas export revenue, heightened by the deliberate suppression of domestic gas prices, is immense. Eastern Europe is a different matter – here, more obvious tensions are evident, but Visegrad actors are moving to create options for themselves, and the powers on their eastern and western borders still have more to gain from cooperation and compromise than confrontation.

CHAPTER 2 THE NATURE OF THE NATURAL GAS TRADE

The research question of this dissertation – is Russia acquiring hegemonic dominance in Euro-Russian gas relations, and do its ambitions represent a security threat to Europe – is more convincingly assessed if the nature of the relations that are to be dominated, and how they might (or might not) be threatened, is understood. The purpose of this chapter is therefore to provide this sort of background. The analytical fabric of Euro-Russian gas relations is laid out below: beginning with a very brief overview of the physical aspects of natural gas relationships, I move into the commercial and political aspects of the relationship. This overview reveals structures that are crucial to gas arrangements within Europe, but that are rarely given their due in analytical treatments of the subject.

After linking these physical traits to the generic market arrangements that flow from them, I explore two aspects of the European gas trade: the concept of management consensus is expanded on in an effort to elucidate the tightly-knit nature of state-firm relations in European gas; and the structure of continental gas markets, with particular attention to the privileged position of transmission firms as national champions. After a brief summary of gas structures in Russia, I begin to link the two sides of the supply-consumption chain, identifying the main pipeline links and emphasizing the variety in European use of Russian gas – a point that becomes very important when one considers the frequency with which 'Europe' or European 'interests' are inserted casually into discussion of the European NGR. The chapter concludes with attention to the roles of firms and states in the regime, and with a brief summary of the implications of all of these arrangements for the rest of the dissertation.

2.1 Physical Aspects

Natural gas originates underground, and is usually created in conjunction with oil through the compression of decomposed organic matter into rock. Over millenia, intense heat and pressure release the organic matter; if the heat and pressure are great enough, the matter is reduced from liquid (oil) into gaseous form. 'Biogenic' gas is found at shallow depths, and is also called swamp or marsh gas, e.g., the Urengoy field in Russia. 'Thermogenic' gas is located deeper underground. In both cases, natural gas is held in reservoirs of porous, sedimentary rock typically classified as organic shale – as opposed to the common misperception of underground caverns – topped by an impermeable rock cap that prevents it from escaping. Where it is found with oil, the gas is known as 'associated' gas, which is then either produced (if market conditions warrant a short pipeline), re-injected to maintain pressure in the reservoir, or flared (burned off) so that the oil can be accessed.

Gas production occurs through terrestrial or offshore drilling; when a gas well is drilled and the cap containing it is breached, subsurface pressure drives the gas into the well and upward. As production continues, and gas pressure declines, compressors are used to maintain pressure and prolong the life of the well. Gas that reaches the surface needs to be treated to remove unwanted impurities like water, carbon dioxide or hydrogen sulfide, which can act as corrosive elements on pipeline interiors. Once the impurities have been removed, the result is 'pipeline-quality' gas.

Natural gas transmission technology improved dramatically in the 1920s when stainless steel pipe was introduced. Lengths are welded together, anti-corrosive coatings are applied inside and out, and the pipe is laid in a trench and buried underground. A

company that is constructing a pipeline must obtain the necessary regulatory approvals and rights-of-way, and aligns the specifications of the pipeline with economic expectations – key decisions include the "choice of gas pressure, pipeline diameter, pipe wall thickness, type of compressors and compressor station spacing." Compressor stations maintain pressure in the pipeline, and are typically placed at 80- to 160-kilometre intervals. Transmission lines can span great distances – the Yamal line connecting the Urengoy fields of northwest Siberia to markets in Germany runs approximately 4,196 kilometres, crossing Belarus and Poland en route.

European transmission lines were historically run by management committees established by the pipeline owners; today they are run by Transmission Service Operators (TSOs). They link up with regional markets through distribution lines that are usually run by regional or local firms or utilities. Some transmission lines also connect to specific, high-order industrial users or to storage facilities, often previously depleted gas or oil reservoirs. As they approach cities, larger lines pass through 'city gate' stations; pressure is reduced for dispersion throughout the local network, which is made up of smaller-diameter, less pressure-tolerant pipe. Such stations also filter the gas again, and add an odorizer to allow for detection in the event of a leak. Once the gas enters local distribution networks, it is delivered to three types of customer: industrial users (factories, power generating plants), commercial users (shopping malls, hotels, schools, hospitals, etc.), and residential users.

2.2 COMMERICAL ASPECTS I – THE GENERAL TRADE IN NATURAL GAS

The gargantuan price tag attached to natural gas production and transmission makes these activities, for most observers, natural monopolies. Writing about Shell's experience and ability in the field, Odell characterizes natural gas production as "a "rationalised" operation "of a scale and technical finesse such as is only possible when a large field can be worked by one highly competent operator." The same is true of long-distance gas transmission lines. Any number of companies or contractors could drive the process or do the work, but the effort involved – the financing, the lengthy regulatory approval process, the easements required, and the assurances of gas suppliers and gas buyers (see below) – essentially guarantees that only one large project will be undertaken to join a particular reservoir with a particular market. Once such a pipeline is in place, there is far less incentive for competitors to build another one beside it; it is cheaper and infinitely easier to pay the other company to transport the gas for them.

For all of this to function, a unique relationship must evolve among producers, transmission companies and distributors; Stern characterizes it as one of "multilateral mutual dependence" because any party that interferes with the flow of gas, at any link in the chain, will suffer financially; this reality, he argues, is "unusual" in the sense that gas relationship scenarios feature clear 'win/win' and 'lose/lose' outcomes, but no 'win/lose' outcomes. Importantly, these mutual dependencies are apparent long before the pipeline is built. Before producers, for example, go to the expense of developing a natural gas field, they need to know that pipelines will be put in place to move the gas, and that commitments have been made to purchase it. Similarly, the firms that build long-distance pipelines must know that producers will provide enough gas to justify the construction

cost and the effort, and must be assured that local distributors will buy the gas at the other end. Finally, distributors must be confident that enough gas will be available to justify the development of infrastructure to serve industrial, commercial and residential consumers, and that those consumers will be there to purchase it. The result is a chain of Catch-22-type dynamics that must be negotiated more or less simultaneously, with billions of dollars, political capital and many reputations at stake.

Matters are even more complicated if agreements extend across national borders. Stakeholders, authority and responsibility are suddenly spread across two (or more) national spheres, with obvious implications for contract enforcement and dispute resolution. Financing must now be sought from more diffuse sources, and disjunctures in technological capacity, business culture and governance become more likely. Parties must consider all of this in deciding whether a partner in a foreign jurisdiction will deliver on commitments, e.g., to build its share of a pipeline, before undertaking to deliver on its own. Obviously, these challenges are accentuated if the parties' general political-economic relationship is a difficult one. In this light, the agreements that saw the Soviet Union initiate shipments of natural gas to Western Europe between 1968 and the late 1970s – relative détente notwithstanding – are all the more remarkable.

A number of standard practices have evolved to overcome these pathologies, and to encourage good-faith bargaining and sustained, mutual confidence. The first is the long-term contract. Natural gas agreements frequently have durations of 15-25 years, a practice that allows actors to amortize their initial investments to allow for profit in the shorter term. These contracts have become more flexible over time, allowing pricing adjustments to reflect changes in the external environment. A second practice is the

inclusion in contracts of 'take-or-pay' and 'deliver-or-pay' provisions that reassure sellers by obligating buyers to pay for gas they have ordered, and reassure buyers by obligating sellers to deliver the promised volumes. A third practice is the 'destination clause,' which prevents an importer from re-selling the gas it has bought under one contract to customers in another country, or from selling it to other customers in the same country that are not already customers of that buyer (and who, presumably, might already have contractual arrangements with the original supplier). Such clauses have featured prominently in recent discussions of European energy security; some view them as mechanisms of Russian control over European governments, while Russian observers see them as legitimate drivers of profitability, a point of particular contention in the Energy Charter Treaty. Two final practices are the 'market value principle,' through which the price of gas is linked to the price of alternative fuels in that market, and 'netback pricing,' which sees transport costs, export taxes and other fees involved in moving gas deducted from the price paid to gas producers.

One other aspect of natural gas arrangements is worth noting, though it is less a 'practice' than a structural feature: cross ownership and joint involvement in production and transmission by large energy firms. Van Oostvoorn and Boots describe this tendency in terms of horizontal and vertical integration in the European gas market. Horizontal integration refers to the practice of multi-firm involvement in production or transmission projects, a practice designed to share costs. Vertical integration sees firms simultaneously have upstream and downstream holdings, or "different stages of the industrial column," as the authors put it. Through mergers or joint ventures, this practice is designed to reduce risk and to "evade competition" in more competitive upstream markets. Vertical

integration is most pronounced in what the authors, citing Michael Stoppard, refer to as 'old order' firms, i.e., Shell, Exxon, ENI (Italy) and EBN (Netherlands); it is less pronounced in the 'new order' producers, i.e., Gazprom, Sonatrach (Algeria) and GFU (Norway), firms that have traditionally been far less involved in downstream European markets.

2.3 Political Aspects of the Natural Gas Trade in Europe

Despite their individual gas consumption, dependence, and energy balance 'recipes,' natural gas relationships in European countries display an important similarity: a tendency toward highly cooperative and stable state-firm relationships that derive from three key tendencies: (a) a non-conflictual approach to state-firm relations in generating natural gas institutions within each country, (b) an ongoing dialogue between state and firm through co-membership in supervisory boards and other fora, and (c) a degree of autonomy for national gas firms that approaches self-regulation. As Nøreng put it in the mid-80s, "it seems that national policies and the interests of private and public firms have been fairly well reconciled."[61]

An important part of this reconciliation has been the gradual evolution of gas from a minor player in the European energy balance prior to 1965 to an essential component of daily life today. Gas is now firmly established commercially, politically and infrastructurally as a source of heat, as a source of electrical power, a provider of convenience (e.g., cooking), a transportation fuel, and a major means to employment. As providers of the skills and knowledge required to manage this penetration into everyday

[61] Øystein Noreng, "Structure and Bargaining in the West European Gas Market," in Rolf Golombek, Michael Hoel and Jon Vislie (eds.), Natural Gas Markets and Contracts. Amsterdam: North Holland, 1987, p.20.

life in European countries, energy firms – transmission companies in particular – have become indispensable elements of national interest and the public good, continent-wide, cultivating deep and stable relationships with their national governments in the process. Shepherd's 1981 comments on the 'publicness' of influential private firms could have been written for the European gas industry:

> Any enterprise can have 'social elements' to some degree. This occurs if the firm's activities involve (1) external effects, (2) national monopoly (large economies of scale), or (3) strong impacts on equity … If such public or social effects are large, the firm is no longer strictly 'private' …[62]

This has not been an unnatural development for Europe, where tight state-firm relations – referred to variously as 'statist' and 'corporatist' in the literature – have been traced to the Middle Ages, and contrast with the evolution of state-firm interaction and interest articulation patterns in countries like the United Kingdom and the United States. In the European tradition, business "assumes a privileged position" because of the potential for economic performance to "critically" influence the "prospects of governments and opposition parties to win the next election," a reality that leads government officials to see corporations as playing an "indispensable" public role.[63] The specialized knowledge that firms possess is deemed "crucial to setting technical standards or regulating markets," and a ubiquitous organization in Europe – the business association – is a vital source of information as to how "members assess government policies and whether they are likely to comply."[64] Furthermore, the support of key

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[62] William G. Shepherd, "Public Enterprise in Western Europe and the United States," in H.W. de Jong (Ed.), The Structure of European Industry. The Hague: Martinus Nijhoff, 1981, p. 290.
[63] Rainer Eising, citing Lindblom (1977) in The Political Economy of State-Business Relations in Europe: Interest Mediation, Capitalism and EU Policy-Making. London: Routledge, 2009, p. 20.
[64] All quotes from Eising, ibid, pp. 20-21.

corporate actors "may allow some government officials to implement their political preferences," legitimating policies and aiding government actors to "win larger acceptance for them." States in corporatist arrangements are therefore predisposed to appreciate the importance of large firms, and to "promote the representation of business interests" as part of a strategy of "constantly seeking out allies, probing and manoeuvering for the active consensus."[65]

Firms are equally motivated to engage states, using "the complex, entrenched network of rules, cooperative relations and trust purposefully and to see it as a competitive advantage" in order to maintain a favourable position.[66] Viewing institutions as devices that "structure political and economic processes," rather than simply as venues for the pursuit of interest, they appreciate the potential of institutionalized linkages to "endow actors with resources and define their roles so that they channel perceptions, interests and behaviour, by both providing opportunities and setting constraints."[67] The result is a set of mutually beneficial institutions "that encourage a high degree of cooperation and, hence, a high level of trusting, cost-reducing cooperation in the economy."[68]

Speaking in terms of a German 'production regime,' Abelshauser identifies an historical tendency toward a dual control structure in large firms. Splitting firm supervision between a managing board and a supervisory board, firms built "communications networks" to direct information "into the proper channels." The inter-organizational links estabished through supervisory boards are enhanced by a tendency

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[65] Ibid, all quotes, pp.21-22.
[66] Werner Abelshauser, The Dynamics of German Industry. New York: Bergahan Books, 2005, p.145.
[67] Eising (2009: 31-32).
[68] Abelshauser (2009: 4).

toward an intercompany system – defined as "a cooperative relationship that companies in an industry form among themselves" through business associations, resource-sharing in research and education, "export cartels, and sales syndicates" – creating an effective national approach to industrial relations and training.[69] There is therefore a pronounced autonomy in German industry that, at the same time, is situated within "long-term and institutionalized patterns of strategic interaction" with the state, what Abelshauser called the "cultural code" behind the economics; the result is an "organized capitalism" (others have used terms like 'coordinated market economy') effectively nesting inter-firm competition within inter-firm cooperation," institutionalized through "interlocking" shareholdings and directorates.[70]

Two things are important here. First, we are considering a *general* pattern of consensual state-firm relations in Western Europe, i.e., one distinct from more competitive patterns in countries like the United States or United Kingdom. There is considerable variation across the continent, as attested by Delmas and Terlaak's discussion of regulation in the U.S., Germany, the Netherlands and France, Keeler's treatment of French arrangements on the "pluralism-corporatism continuum," or Eising's work on French and German business associations.[71] Still, the pattern suggests that gas arrangements in Europe comprise more than the state's regulatory power or a firm's profit imperative.

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[69] Abelshauser (2005: 83-84).

[70] 'Cultural code,' Ibid, p. 4; on the 'organized capitalism' see Martin Höpner and Lothar Krempel, "The Politics of the German Company Network," MPIfG Working Paper 03/9, Max-Planck Institute for the Study of Societies, 2003, p.3.

[71] John T.S. Keeler, "Situating France on the Pluralism-Corporatism Continuum: A Critique of and Alternative to the Wilson Perspective," Comparative Politics, Vol. 17, No.2, 1985, pp. 229-249. Magali Delmas and Ann Terlaak, "Regulatory Commitment to Negotiated Agreements: Evidence from the United States, Germany, The Netherlands and France," Journal of Comparative Policy Analysis: Research and Practice, Vol. 4, No.1, 2002, pp. 5-29.

Second, apart from mitigating both inter-firm competition and state-firm confrontation, state-firm structures across Europe are strong and flexible at the same time. Again the idea of an unstable equilibrium comes to mind – the overall picture is never static, but the general parameters of organization, communication, consultation and commitment to mutual support are consistent, imbuing national gas structures with considerable resilience to pressure from above, below, or outside. This does not suggest that firms, gas-oriented business associations and states never disagree; clearly, despite the trend toward consultation and linkage, differences arise from within and without.

An example may be helpful. In the late 1990s, the German Ministry of Economics and Technology initiated the so-called 'Gas V-V' process (*Gas-Verbaendevereinbarung*), part of an effort to demonstrate state commitment to the First Gas Directive, discussed in Chapter 5. The initiative produced, in 2000, an agreement between the Ministry and four large business associations: VIK, a gas consumer organization; BDI, a "general industrial organization;" and VKU and BGW, both gas industry organizations. A fifth association, the European Federation of Energy Traders (EFET), with an obvious interest in full liberalization, was a keen observer to the Gas V-V, but quickly found itself disappointed. Lamenting the "extremely high" gas transport tariffs maintained by transmission companies, and suggesting that this "may result from the fact that the methodology for calculating these tariffs appears to have no basis in the actual costs of transportation in Germany," EFET argued that the "process of trying to determine the tariff is also extremely complicated and imposes high transaction costs on the party requesting network access" by avoiding any "standard transport contract" and requiring each contract for separate access "to be negotiated from the beginning for each request." By

January of 2001, EFET was lauding the Minister for "drawing a clear line" with the associations on cooperation with the process, which had become bogged down in pledges for future summits, and referring to "(c)ontinued stonewalling by the German gas industry (BGW)" which "meant no progress was made on agreeing to common principles, an agenda, and a clear time frame to complete the negotiations." The incompatibility of interests between the industry and bodies like EFET, and apparently between the industry and the Ministry, were clear; what is noteworthy is that despite its weight and influence, a powerful government body seemed unable to dislodge the associations or the industry from longstanding practice.

The term *management consensus* is intended, then, to give a name to this general European tendency, and to help with the research question by serving as a constant reminder that national gas is managed within institutions built on more than states and firms. The question of whether Russia is acquiring hegemony demands that we consider what it is that Russia might acquire dominance *over* – by considering this in terms of the tight, pervasive connections of a management consensus, we move beyond the awkward question of whether to think in terms of Russian ambition brought to bear on a state which, presumably, would then bring its corporations into line, or ambition focused on a gas firm, which would then be expected to sort out the domestic political implications. Management consensus suggests that the 'thing' that is to be hegemonically superseded (or not) is a complex institution of considerable weight, more like the sum of the parts than distinct components whose political or commercial imperatives might be affected.

The term might also be useful when we consider the challenges the EU faces in advancing its liberalization agenda. As we shall see in Chapter 5, EU efforts to create an

internal gas market involve an intricate dance with national governments and firms. Hancher and Del Guayo's compelling account of this engagement cites the lack of formal EU Commission authority to establish rules on natural gas itself as a key factor in the way this process has unfolded – because the European Commission has to rely on the European Parliament and, by extension, member-state representation to create legislation, compromise is unavoidable. As a result, the EU has eschewed any notion of central European regulation, relying instead on the establishment of National Regulatory Authorities (NRAs). Brussels has also worked to augment the legislative potential of the Parliament with a series of consultative forums that have quietly enabled 'soft law' to evolve into regulations that have advanced liberalization in a more meaningful and binding way than the more grandiose Gas Directives passed by the Parliament.[72] All of this puts states in an awkward position. Engaging the EU on one hand, they are also hearing from firms through the usual channels of national management consensus. There is therefore an inherent tension between state treaty obligation to Brussels and the 'modes of interest mediation' that exist in domestic management consensus.[73] The EU does have the advantage of being able to work incrementally, i.e., the "steady path from regulatory principle to regulatory detail," to implement gradual change in the field of play that gives actors time to adjust rather than forcing them into immediate, dire confrontation.[74] But again the point is that the national, constituent units that the EU is working with are tightly interconnected and there is no automatic harmony between the two 'political'

[72] Leigh Hancher and Inigo Del Guayo, "The European Electricity and Gas Regulatory Forums," in Barry Barton, L.K. Hernandez, A. Lucas and A. Roenne (Eds.), Regulating Energy and Natural Resources. Oxford: Oxford University Press, 2006, pp. 245.

[73] The phrase 'modes of interest mediation' comes from the thoughtful and detailed study of European state-firm relations provided in Rainer Eising, The Political Economy of State-Business Relations in Europe: Interest Mediation, Capitalism and EU Policy-Making. London: Routledge, 2009. See in particular pages 30-35.

[74] Hancher and Del Guayo (2006: 245).

links in the chain, i.e., the EU and national governments. These complexities are expanded on in Chapter 5.

Certainly, this concept and the dynamics behind it could be the object of a separate dissertation, and the questions that flow from the term are hardly treated here with the depth they deserve. Still, I suggest that these shortcomings are outweighed by the potential of the term to highlight the institutional *heft* that these state-firm relationships provide, and to further undermine the binary geopolitical-commercial division cited in Chapter 1. I also hope it serves to maintain the prominence of the idea that Russia, to achieve hegemonic dominance, would have to do so in the face of national institutions that are complex, substantial, and deeply entrenched.

2.4 Commercial Aspects II – The Case of Europe

The gas markets of nearly every European country were, from the start, dominated by large, state-owned firms and, as just discussed, state influence is still pronounced. In France, for example, the fully state-owned transmission and distribution company Gaz de France traditionally held sway, but there were also smaller firms with regional responsibilities that were public/private hybrids. The Italian market was dominated by Ente Nazionale Idrocarburi (ENI), which was fully state-owned but controlled subsidiaries that included private ownership. The exception was West Germany where, for historical-political reasons, the transmission and distribution of the new Dutch gas fell to actors at the provincial (*Länder*) level. The result was an arrangement characterized by "regional independence" in which certain parts of the country were controlled by specific, fully private firms, with Ruhrgas the largest actor. It

is worth noting that while the large national firms remained fully or near-fully state owned into the 1980s and 1990s – or longer – the Dutch consensus was not the only one that included major oil multinationals. In Germany, slightly more than 50 percent of Ruhrgas was owned in the early 1980s by Shell, Esso and the German branches of British Petroleum (BP) and Texaco.[75]

Already well positioned to capitalize on the natural monopoly aspects of the trade, West European energy firms emerged in their respective territorial jurisdictions from the late-1960s onward as 'national champions,' protected from competition by foreign and domestic firms. Crucially, the benefits of this arrangement accrued mainly to the transmission companies in *importing* states, who were positioned as monopsonists in their purchases from the Dutch supplier, Gasunie, and as monopolists or near-monopolists in their home markets – Bjerkholt et al, for example, suggest net profits for Ruhrgas of 9 billion DM in 1984, against total sales of 15 billion DM.[76] All of this occurs within a culture of secrecy over pricing and internal costing in companies like Ruhrgas which, unlike the state-owned Gaz de France, existed within an expansive structure of parent and subsidiary companies, creating a labyrinthian accounting environment and

[75] Mobil Oil had an additional 7 percent stake. Explained more fully in Davis (1984:166-169). The approximate 50 percent figure was similar with Germany's second-largest transmission company, Thyssengas, where Esso and Shell were the major multinational players.

[76] Cited in Marian Radetzki, "Pricing of Natural Gas in the West European Market," Energy Studies Review, Vol.4, No.2, 1992, pp.94-99. The term 'duopoly' has also been used to describe the relationship between transmission companies and local producers in the domestic market. While purists have debated the application of this terminology, there is little question that the gas trade in Europe evolved through interactions between a very limited number of sellers and a very limited number of buyers, as per Nøreng (1987: 13). This has more recently been described as a case of 'successive oligopolies,' a structure allowing abnormally high profit levels to be realized at the expense of end-users. See Maroeska G. Boots, Fieke A.M. Rijkers and Benjamin F. Hobbs, "Trading in the Downstream European Gas Market: A Successive Oligopoly Approach," Energy Journal, Vol. 25, No.3, 2004, pp. 73-102. The assumption that transmission companies are able to obtain the greatest share of the available benefits has been questioned in some quarters, e.g., by Marian Radetzki, cited above. To his credit, Radetzki spends time reviewing arguments, posed by others, which identify transmission companies as the main collectors of 'monopoly' rent.

making it very unlikely that true costs and profits will ever be known.[77] As William Engdahl would later describe the relationship between secrecy and pricing,

> What has resulted is a patchwork of different prices, usually in some opaque, undisclosed manner, tied to a formula linking it to crude oil such that, when oil in dollars drops by say, $1, gas would drop along with, but by how much is a proprietary secret of the gas companies and for obvious business reasons—lack of price transparency can hide a multitude of sins. That non-transparent price formula allows companies like Germany's E.ON-Ruhrgas to charge significantly more for its gas to end-users when oil prices climb above $60, even though most of its gas deliveries from Gazprom are in typically 20 to 25 year fixed price contracts with small variances possible.[78]

If producers were in fact exacting a greater share of the benefits than transmission companies, the emergence of new suppliers in the early-mid-70s had potential to shift things. After 1973, particularly, when Soyuzgazexport became a serious player on the European scene, greater benefits surely began to accrue to the party who was purchasing and reselling this gas: Ruhrgas. This dual role – as buyer and seller – gives the transmission company an opportunity for 'middle-man' markup, a function they are able to perform while drawing from states and other lenders to make the expansion of their pipeline network possible, spending relatively little of their own money in the process. Furthermore, transmission firms – again, particularly in Germany – have the advantage of being able to negotiate their prices with distributors in relative secrecy. The prices that

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[77] Van Oostvoorn and Boots provide an insightful – and very unusual – compilation of profits recorded by European transmission companies between 1985 and 1997. The most notable feature of the table is the ability these firms demonstrated in maintaining stable profits over time, an achievement that, the authors argue, is based on transmission company ability "to shift the rent on the natural gas market from gas producers to gas tramsmission" through vertical integration. Michael Stoppard augments this point, suggesting that vertical integration renders the producer-transmitter distinction to some extent artificial; because parent companies of the larger private transmission companies also have large shares in gas production firms, they have been able to "shift" gas rents into the European downstream, leaving producers to bear the brunt of falling gas prices from the mid-1980s onward, and leaving transmission company profits "largely unaffected." See F. Van Oostvoorn and M.G. Boots, "Impacts of Market Liberalisation on the EU Gas Industry," a report to the European Commission Directorate General for Energy, October, 1999, p. 20, 26.

[78] F. William Engdahl, "Putin's Gas," personal website. Accessed 12 February, 2010, from: http://www.engdahl.oilgeopolitics.net/Geopolitics___Eurasia/Putin_s_Gas/putin_s_gas.html.

distributors negotiate with their customers, on the other hand, are far more visible, a fact that undoubtedly constrains their ambitions. And while states certainly realized benefits through taxes and sur-taxes, as we have seen, the revenues cannot rival those generated by the Ruhrgases and Gasunies of the world. Unless producers are able to skim the bulk of the profits at the wellhead, as asserted by Marian Radetzki, it is the transmission companies, public or private, that realize the greater share of the available benefit.

A policy, first enacted by the Netherlands' Gasunie in the trade's early years, of ensuring that gas prices were set on par with those of other fuels encourages the view of this 'orderly market' as deliberately structured through what amounted to intra-firm trading, creating higher costs for end users than would have been the case in open markets, and providing producers and transmission companies with exceptional rewards. Peter Odell was particularly critical of this arrangement, lamenting its prevention of efficient gas markets from emerging, and arguing that the deliberately gradual introduction of Groningen gas amounted to a "failure" of industry and governments "to accept the opportunities offered by natural gas for changing Western Europe's energy system," providing "clear evidence" of "anti-natural gas expansion policies." Moreover, as he argues,

> The misperceptions over gas supply and gas markets are … not simply allowed to persist by the powerful club of gas transmission and distribution companies/institutions (some state and some private). They are deliberately encouraged by them. In their still largely unconstrained exercise of power in the gas markets these entities … persist with inflexible long-term … strategies of securing access to volumes of gas which will just match the deliberately limited sales to restricted high value markets.[79]

[79] 1988: 485-486.

2.5 THE EURO-RUSSIAN TRADE

2.5.1 Russia and Natural Gas

Russia's conventional gas resources are unparalleled. With proven reserves of more than 43 trillion cubic metres, it possesses nearly 1.5 times the volume of the next-largest holder, Iran.[80] It is the world's largest gas producer, the largest exporter and, with the exception of the United States, the largest consumer. Traditionally, Soviet production centred on gas deposits in the Caucasus, Ukraine, and Central Asia. As these fields started to decline and, after 1991, fell under foreign jurisdictions, production shifted to the 'Big Three," the Yamburg, Urengoy and Medvezhye fields of Western Siberia, which are classified as super-giants (fields of 850 bcm and up). Interest has more recently turned to other massive fields on the Yamal Peninsula in the far north, and to an offshore super-giant, the Shtockman field, located 600-km north of the Kola Peninsula in the Barents Sea, and currently the fourth-largest gas field in the world.[81]

The dominant player in Russian gas is, of course, Gazprom. Created by Mikhail Gorbachev and Victor Chernomyrdin in 1989 as a state-controlled committee through a wholesale conversion of the Soviet Ministry of the Gas Industry, the firm was developed after dissolution into a joint-stock enterprise, the country's first private-state undertaking. Russia retained the vast bulk of the physical infrastructure, and the level of state shares reduced from 100% to under 40% by 1993.[82] Public shares were acquired through the

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[80] BP Statistical Review of World Energy, June 2010, p.22.

[81] For statistics on Shtockman in comparison to other large fields, see, David Wood, "Russia's Drive for Power – 2: Gazprom Controls Gas Exports to Europe, Asia," Oil & Gas Journal, Vol. 105, No.7, 19 February, 2007, p.18.

[82] Smaller portions were ceded to Belarus (1.5%) and Ukraine (9.5%). See Nadejda M. Victor and David G. Victor, "Bypassing Ukraine: Exporting Russian Gas to Poland and Germany," in David G. Victor, Amy

voucher program initiated under Yeltsin in which every Russian citizen was issued one voucher to be used to acquire shares in former state firms; by 1994, 33% of Gazprom shares had been acquired by the public, with another 15% going to Gazprom employees. The state share settled in this period at roughly 38%.[83] However, this era in company history was marred by large-scale asset-stripping and corruption as the state struggled to privatize state assets.[84]

Victor and Victor cite the tension in the early years between two fundamental Gazprom objectives: to increase profits, and to integrate the entire supply chain so that neither rents nor assets could be expropriated by other domestic interests, as had happened with the oil industry. By and large the firm had, by the early/mid-1990s, accomplished the latter goal, and had actually benefitted from constraints on the former; political pressure to suppress domestic gas prices in Russia discouraged opportunistic investors from lobbying to gain access to the trade, and Gazprom's now-consolidated control over pipeline access to markets kept it in an advantageous position in relation to regional and independent producers. Those firms that did manage to get their own gas to market were able to do so, Victor and Victor suggest, only through political connections within Gazprom.[85]

The remainder of the 1990s and the early 2000s saw gas market dynamics increasingly favour the expansion of gas exports to Europe, with still-suppressed demand in the domestic gas market creating a gas surplus 'bubble.' From exports to Europe of 90

M. Jaffe and Mark H. Hayes (eds), Natural Gas and Geopolitics: From 1970 to 2040. Cambridge: Cambridge University Press, 2006, pp. 137-139.

[83] The voucher program – and its manipulation – is explored in Marshall I. Goldman, Petrostate: Putin, Power and the New Russia. Oxford: Oxford University Press, 2008, pp. 60, 106-107.

[84] C.f. footnote 238 in Chapter 6.

[85] Victor and Victor (2006: 138-139).

bcm in 1990, Russian exports had reached 150 bcm by 2004, increasing the regional profile of the firm and generating ongoing revenue for the Russian treasury.[86] In 2005 the state upped its share to 51 percent of Gazprom stock, and the company continued to grow.[87] Marina Tsygankov's 2008 description captures the extent of the company's influence over gas affairs in Russia:

> Gazprom controls most of Russia's gas production and processing. It also owns all of the high-pressure transmission pipelines. Ownership of the transmission system gives Gazprom control over all Russian gas imports from Central Asia and also control over access of non-Gazprom gas producers to the Russian gas transportation system. Gazprom has also the exclusive right to export natural gas to Europe. Although, Gazprom's export monopoly was only officially legalized in 2006, Gazprom has effectively controlled Russian gas exports since its establishment because of its direct ownership of the Russian gas transportation system. Hence, the structure of the Russian gas industry and the logic of its organization have not changed much since Soviet times.[88]

Smaller independent producers do exist in Russia, and according to Russian law, have access to Gazprom's pipelines if capacity is deemed available, if there are no concerns over the quality of the gas, and if the producer can get the gas into Gazprom's Unified Gas Supply System (UGSS), and from the UGSS to its end-users.[89] Some of these producers are dedicated specifically to gas production; others are oil companies with associated gas. Prices in Russia's domestic market have long been kept artificially low by government decree (see Chapter 4), a policy that Gazprom has long lobbied to change; despite regular increases, domestic gas prices are well below European levels. As a result, the company is disproportionately dependent on its European exports which generate the

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[86] Victor (2008: 10)
[87] Marina Tsygankova, "Netback Pricing as a Remedy for the Russian Gas Deficit," Discussion Papers No. 554, August 2008, Statistics Norway, Research Department, p.5.
[88] Ibid.
[89] Gazprom, "Gazprom in Questions and Answers: Transmission." Accessed 25 January, 2010 from: http://eng.gazpromquestions.ru/?id=6#c314.

vast majority of Gazprom profits despite accounting for only 15 percent of total production. This dependence has become crucial to Russia – by 2000, Gazprom was providing some 20 percent of government tax revenues; by 2006 it was closer to 25 percent.[90] What such figures mean in real terms fluctuates, but they are obviously substantial; in 2007, Gazprom reported first quarter net profits of $8.68 billion on approximately $24.47 billion in revenue.[91] There is another side to this dependence that centres on world oil (and hence gas) prices. Minor increases in the price of a barrel of oil translate into enormous additional revenue for Russia, but a drop in the price of oil, an increase in the price of Central Asian gas, or reduced European demand can all have heavy impacts on Gazprom, as happened between 2008 and 2009 when the company reported a decline in profit of nearly 50 percent.[92]

Gas flows westward from Russia to Europe through three main, Gazprom-owned pipelines (Fig. 2.1, below). The most northerly route links the Northern Lights and Yamal lines, delivering gas to Germany via Belarus and Poland. Some legs of this line date from the late 1960s; originally running southward to Ukraine, it was linked to the new Yamal pipeline in 1997, and reached full capacity in 2005. Contrary to its name, this line draws its gas from the Urengoy fields and not the Yamal fields further north, an area for which pipeline infrastructure is still being constructed. The Belarusian section of the line is owned by Gazprom and operated by the Belurusian firm Beltransgaz; the Polish section is jointly owned and operated, with Poland's EuRoPol Gaz and Gazprom each holding 48

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[90] International Energy Agency, Russia Energy Survey 2002. Paris: OECD/IEA, 2002, p.111, and Simon Schuster, "Gazprom's EU Ties Stumble on Reciprocity," Moscow Times [online], 17 July, 2007. Accessed 22 July, 2007, from: http://www.themoscowtimes.com/stories/2007/07/17/002.html.

[91] Thomson Reuters, "Gazprom's Q1 2007 Net Profit, Revenue Rise," Reuters UK [online], 8 October, 2007. Accessed 31 January, 2010, from http://uk.reuters.com/article/idUKL0873359520071008.

[92] Adam Neuman, "Gazprom's Profits Drop by Nearly 50%," Next Generation Oil & Gas [online], 10 November, 2009. Accessed 31 January, 2010, from: http://www.cisoilgas.com/news/gazprom-profits-drop/.

percent of the shares.[93] Further south, the Transgas-Bratstvo (Brotherhood) line also dates from the 1960s, and was originally built to transport Ukrainian gas to Eastern Europe.

Figure 2.1 Russian Gas Pipelines to Europe

It has since been extended eastward to the Urengoy gas fields, and now transports Urengoy gas through Ukraine and Slovakia to the Czech Republic, Austria and points west. Capacity increases in the line reflect the drastic increase in importance of natural gas to all parties concerned: where 1969 deliveries amounted to less than 1 bcm,

[93] Polish Gas Trading S.A. owns the remaining 4 percent.

Transgas-Bratstvo was delivering 80 bcm by the late 1990s. The most southerly line is the Southern Corridor or the Southern Branch. Completed in 1974 to deliver gas to Romania and Bulgaria, the line was extended in the late 80s to connect to Greece and Turkey.[94]

Two new significant and controversial pipeline projects have emerged in recent years. The Nordstream pipeline, discussed in Chapter 6, is proposed to run under the Baltic Sea, linking to the Yamal fields through Vyborg on Russia's Baltic coast, and making landfall near Griefswald in Germany. Engineering and environmental challenges aside, Nordstream would be the first gas pipeline to bypass potential transit states and link Russia directly to its major buyer, Germany. The other major initiative, also discussed in Chapter 6, is the South Stream pipeline, essentially a Russian foil to the Nabucco pipeline, a proposed effort to diversify EU supply by forging direct links with suppliers in Turkmenistan and Iran. South Stream, if it is built, would leave Russia at Beregovaya on the Black Sea coast, and proceed under water to Bulgaria, where it would split into a westward line to Greece and Italy, and a northwest line through Serbia to Hungary, Austria and, presumably, the larger Central and Western European markets.

2.5.2 Europe and Natural Gas

European use of natural gas dates back to the 1800s when manufactured or 'town' gas, a byproduct of coke production, was utilized for urban lighting. Natural gas developed much later in those European states that discovered domestic resources – in the late 1930s in Italy and France, and the 1950s in Germany and the Netherlands. Gas

[94] Ian Cronshaw, Jacob Marstrand, Margarita Pirovska, Daniel Simmons and Joost Wempe, "Development of Competitive Gas Trading in Europe," IEA Information Paper. Paris: OECD/IEA, May 2008, p.19

did not begin to cross national borders until the mid-1960s after the Dutch discovery of the Groningen fields, as discussed in Chapter 3. Generally, actor commitment to the trade accelerated after the oil shocks of the early 1970s, with massive expansion of gas infrastructure throughout the continent. Today, gas is an important element of most European states' national energy balances.

Within Europe, large-scale production occurs in two areas: the Groningen fields of Holland and the Norwegian, Danish, Dutch and British sectors of the North Sea. Groningen began shipping gas across to neighbouring states in 1966. Soviet deliveries were initiated in small amounts in 1968 to Austria, and in larger amounts to Germany and Italy in 1973-74. North Sea gas began flowing to the continent from Norway's Ekofisk field in 1977, from larger Norwegian fields in the 1980s, and from the United Kingdom through the Interconnector pipeline, completed in 1998. The other major supplier, Algeria, had a history of LNG exports to France, Portugal and Spain as far back as the 1960s, and built undersea pipelines to Italy in 1983, and to Spain in 1996.

Despite the considerable depth and breadth of European integration, labels like 'European gas picture' should be used with caution. As observers have pointed out repeatedly over the years, there is no 'European' gas market; rather, there are segregated national gas markets, each of which features its own 'recipe' of production, consumption, role of gas in the national energy balance, sources of foreign supply, and so forth. This variegation extends to differences in: systems of ownership and transport rights; degrees of market concentration and integration; market structures; position on 'gas-to-gas' competition; regulatory instruments; perceptions of the national interest with respect to the "optimal use of energy resources;" and dependence on foreign suppliers. This

variegation, as illustrated in Table 2.1, below, is belied by the ease and frequency with which phrases like 'European gas dependence on Russia' are used.[95] Clearly, a country with low domestic production, a high percentage of Russian imports, and a heavy reliance on gas in its general consumption of energy (e.g., Slovakia, Hungary) can be considered more 'dependent' on Russia than a country with diverse suppliers (Spain), one that produces its own gas (Netherlands), or one that relies on other sources of energy (Finland).

Table 2.1 European Natural Gas Consumption Volumes and Percentages, 2006 and 2008 (bcm)[96]

Consumption by Volume	Russian Imports by Volume	Country	% Consumption Russian Gas	Gas as % of total Energy Consumption
9.5	5.8	**Austria**	61.1	22.8
17.0	0	**Belgium***	0	25.7
3.3	3.1	**Bulgaria**	93.9	14.4
8.7	6.6	**Czech Republic**	75.9	15.6
4.6	0	**Denmark**	0	21.6
1.5	0.6	**Estonia**	40.0	14.1
4.0	4.5	**Finland**	100	11.3
44.2	8.8	**France**	19.9	14.7
82.0	36.2	**Germany**	44.1	22.7
4.2	2.8	**Greece**	66.7	11.7
12.0	8.9	**Hungary**	74.2	40.4
5.0	0	**Ireland**	0	30.0
77.7	24.5	**Italy**	31.5	40.3
2.1	0.7	**Latvia**	33.3	31.2

[95] Ernst J. Mestmäcker, "Energy Policy for Natural Gas in the Internal market – An Overview," in Ernst J. Mestmäcker (ed), Natural Gas in the Internal Market: A Review of Energy Policy. London, Dordrecht, Boston: Graham and Trotman, Ltd. 1993, p.1-8.

[96] Sources: Consumption, Russian Imports: BP Statistical Review of World Energy, June 2009: http://www.bp.com/productlanding.do?categoryId=6929&contentId=7044622. EU percentages of total; energy consumption: 2008 IEA Energy Statistics and Balances: http://www.iea.org/stats/graphsearch.asp; Norway data from http://www.eia.doe.gov/emeu/cabs/Norway/Full.html. Latvia/Estonia data (excepting % total consumption) from Gazprom 2009 Annual Report (Databook 2009), available at: http://www.gazprom.com/investors/reports/2009/; and from Index Mundi, http://www.indexmundi.com/latvia/natural_gas_consumption.html, and http://www.indexmundi.com/estonia/natural_gas_consumption.html.

Consumption by Volume	Russian Imports by Volume	Country	% Consumption Russian Gas	Gas as % of total Energy Consumption
3.2	3.09	**Lithuania**	96.6	28.0
38.6	4.33	**Netherlands**	11.2	44.2
4.3	0	**Norway**	0	15.7
13.9	7.2	**Poland**	51.8	12.8
4.6	0	**Portugal**	0	17.7
14.5	3.5	**Romania**	24.1	31.3
5.7	5.6	**Slovakia**	98.3	28.3
39.0	0	**Spain**	0	25.0
1.0	0	**Sweden**	0	1.9
93.9	0	**U.K.**	0	30.4

* includes totals for Luxembourg

2.5.3 Conceptualizing the Euro-Russian Gas Trade

Gas firms – private, public, or anywhere in between – are the focal points of the relationship. They carry out the physical handling of natural gas from wellhead to end-use; they establish and activate the administrative apparatus behind these activities, e.g., project management and contractual development; they form the crucial linkages with counterparts in exporting states, negotiating terms on pricing and volume on the basis of their own calculations of future demand and supply; they arrange to cope with load factor swings to ensure regularity of supply despite seasonal fluctuation; they process natural gas in order to tailor it to the needs of individual users; they spearhead the financing efforts for new projects and new infrastructure; and they make the big decisions on whether to pursue new agreements, new projects and new spending. Worldwide, firms involved in natural gas tend to be large, influential corporations spanning different aspects of the trade – production, transmission and storage, typically – and frequently achieving prominence through the natural monopoly – and, in Europe, *national* monopoly – characteristics of the trade. Whether the firms be private, public or semi-

public, the general trend is for national champions to emerge and take root, and to dominate their national markets. This has certainly been the case in Europe despite the recent trend toward liberalisation. Firm activity comprises five main areas of natural gas activity: production, transport, storage, distribution and marketing. Where the gas crosses national borders, these functions are obviously split, though some regional markets feature a high degree of mutual involvement, i.e., producing firms in the exporting state become involved in downstream marketing or distribution activity while transmission companies in the consuming state acquire stakes in upstream production or transmission in the country where the natural gas originates.

Even in the absence of such cross-pollination, the firm-firm bargaining and contracting processes that precede the cross-border movement of gas – and which continue throughout the course of the relationship – seek an optimal balance between security and flexibility for the parties involved, as discussed above. The security comes from take-or-pay and deliver-or-pay provisions; flexibility comes in the form of price adjustments that are built into natural gas contracts, typically enabled by the indexing of the price of gas to the price of oil. Revenue is also generated by gas transit, with the tarriffs negotiated by TSOs existing as crucial aspects of the dealings gas exporters have with transit states.

The essential functions performed at the firm level do not obviate the analytical and functional importance of states, or the linkages posited in 'management consensus.' States are never far away from major gas developments, as evinced by the regular presence of national leaders at contract signing ceremonies, whether the signatories are public entities or not. States actualize the national regulatory and legal frameworks in

which firms operate, and lend diplomatic and executive-level support to the aspirations of their respective firms. They also provide or guarantee financing for major infrastructural projects, and serve as intermediaries (and frequently advocates) between firms and the European Union. While this point will be expanded on in the analysis of gas market liberalization in Chapters 5 and 6, each state is crucial to the implementation of the EU Gas Directives, now working through 'holy trinities' that comprise "a lead ministry, a sector regulatory agency, and a competition authority (sometimes a competition court)."[97] States also incorporate energy concerns into their broader foreign policy planning. This tendency is particularly demonstrable in the case of Russia, where shifts in the nature of the Euro-Russian NGR can largely be ascribed to changes in the posture adopted by the Kremlin, from the all-encompassing control of the Soviet leadership to the eager, if chaotic, encouragement of Western involvement by the Yeltsin government, and onward to the 'corrective' course implemented by Vladimir Putin. In Europe the incorporation is more subtle but no less important, nested within the broader political and commercial objectives of member states.

2.6 IMPLICATIONS

The picture that emerges from this portrayal of generic gas relationships and the Euro-Russian regime should already challenge conventional views of the issue. As discussed in Chapter 1, these typically fall into the geopolitical or commercial orientation. Drawing on the ideas and arrangements behind the term *management consensus*, an effort is made to incorporate the most useful aspects of the geopolitical and

[97] Peter Cameron (ed), Legal Aspects of EU Energy Regulation, Oxford: Oxford University Press, 2005, p.435.

commercial concerns while filling in aspects of the NGR that neither addresses adequately. Most notably, these aspects include the tight state-firm linkages of management consensus, the importance of trust and mutual assurance among actors in natural gas relationships (the guarantees that must be provided from and to producers, transmitters and distributors will be recalled here), and the element of mutual benefit that firms and states derive from the trade. In the chapters that follow, I elaborate on each of these aspects in an effort to accurately and comprehensively portray the nature of the 'thing' that is to be hegemonically dominated or security-threatened.

CHAPTER 3 1965-1990 – THE BEGINNINGS

The stability that characterized the NGR from its mid-60s beginnings to 1990 is incongruent with its key feature in this period: the rise of Germany to a position of hegemonic influence, understood in the gas-centric, issue-specific sense of hegemony presented in Chapter 1. We have come to associate hegemony with stability, but the early years of the NGR saw the field contested, and the Netherlands – if anyone – held sway. As late as the mid-1980s, the contest was not fully settled, with exporters and importers battling for influence. Discord would be a logical expectation under these conditions and, in actuality, relations within the NGR were not always harmonious – as discussed in Chapter 2, a mix of competing and complementary interests is inherent to the gas trade, and the dramatic structural changes that occurred in the NGR in this phase certainly had the potential to be disruptive. But, by and large, they were not. Despite the 'interest mix' cited above, the entry of new regime players, and the unresolved nature of the contest for most of this period, the trade unfolded with surprising smoothness.

Two explanations for the absence of significant discord emerge: actors accepted growing German hegemony in natural gas because their own interests were furthered to a greater extent than would have been the case if they had resisted; or actors who deemed it desirable to resist acceded because they could not resist successfully. In this chapter, I explore these dynamics in three stages. The first will trace the major developments in phase one. The second will work with the criteria suggested by Alt et al to make the case for German hegemony in this period. The third will address the matter of stability and actor acceptance – willing or otherwise – of the status quo created from the mid-1970s onward.

3.1 EARLY EVOLUTION OF THE TRADE

The early years of the intra-European natural gas trade were dominated by the Netherlands. Small gas finds in the 1940s and 50s had provided the country with some experience in managing the commodity, but the super-giant gas fields discovered in Groningen province were of a different order, requiring commercially and politically viable strategies to be developed on short notice. The first decision was straightforward – there was more gas in Groningen than the country could ever use on its own, and so gas would be exported. But the 'who' and the 'how' of this process were more complex. The decision was taken to create a tripartite body that linked the Dutch state, domestic firms, and the multinational oil companies Shell and Esso to manage the production, transmission and marketing of Groningen gas.[98] A third decision addressed the thorny issue of pricing – with no history with the commodity on so large a scale, there was no consensus in the country (or anywhere in Europe) as to an appropriate price; nor was there one within Holland that would balance the state's interest in benefitting consumers against its desire to maximize the rent for its own use, or to protect other fuel interests, most notably coal. The eventual solution was to price Groningen gas roughly on par with home heating oil in the domestic market, but to charge a higher price for exported gas; this avoided infringement on other markets and interests, and ensured a tidy profit for the

[98] Within this complex arrangement, the concession-holder of the Groningen find, NAM (*Nederlandse Aardolie Maatschappij*) , a 50-50 joint venture of Shell and Esso, would produce the gas. Gasunie, the national gas distributor, in which Shell and Esso each had a 25 percent stake compared to 10 percent by the Dutch government, would "co-ordinate the commercialization of the Dutch natural gas resources on behalf of the State, the concession-holder NAM and [Dutch State Mines, or DSM]," and would transport and market the gas. See "The Dutch Natural Gas System," Global Gas History Network [online]. Accessed 22 November, 2009 from http://www.gashistory.org/Dutch.html. The third major element was the financing partnership (or Maatshcap) jointly owned by NAM (60 percent) and DSM (40 percent), the national coal company, which "would share the costs and profits" of Groningen production," and which itself owned 40 percent of Gasunie. This arrangement is more fully articulated in Davis (1984: 157-158).

state.[99] Importantly, this approach was embraced by buyers in other countries, who had their own energy interests to protect.

Groningen quickly emerged as the centrepiece of the intra-European trade, and natural gas established itself through rapid and dramatic increases in continental consumption, from 44.7 billion cubic metres (bcm) in 1966 to 194.9 bcm by 1974. Users began to take advantage of its simpler (though not necessarily less expensive) storage and transport requirements and lower pollutive impact as gas was increasingly substituted for coal, and Groningen production accelerated from 27.1 bcm in 1971 to 36.1 bcm by the middle of the decade. Production increased elsewhere as well, rising from a combined total of 13 bcm in Germany and Italy in 1966 to 33.4 bcm in 1974.[100] But while Groningen could easily accommodate this expansion, domestic producers in the importing countries could not – proven reserves in Italy, France and Germany peaked at the same time that their depletion rates increased, and these countries have never regained their 1974 production totals.[101]

The mid-1970s emergence of the Soviet Union as a key supplier to Europe brought a sea change to the regime. Two "parallel" and "mutually supporting" trends in

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[99] The 'market price principle' is elaborated on the website of the Global Gas Historical Network: "… the price for gas to be sold to the various types of consumers was linked to the price of alternative fuels most likely to be substituted, viz. to gas oil for small-scale users and to fuel oil for industrial and other large-scale users. Accordingly, consumers would never have to pay more for gas than for alternative fuels, but the market value principle also ensured that they would not pay less. The application of this principle based on market segmentation enabled the concession holders, Shell and Exxon, and the Dutch State to maximise revenues and to market natural gas at a competitive price. A price that would have been related to the production costs of gas from the Groningen field would not have had these benefits." Accessed 22 November, 2009 from "The Dutch Natural Gas System," author unknown. http://www.gashistory.org/Dutch.html. See also Davis (1984: 158-160).

[100] Estrada et al (1988: 11). Historical data drawn from Odell (1988: 482) and BP Statistical Review of World Energy 2009 [Online]. Accessed 17 November, 2009 from http://www.bp.com/productlanding.do?categoryId=6929&contentId=7044622;

[101] Øystein Noreng, "Structure and Bargaining in the West European Gas Market," in Rolf Golombek, Michael Hoel and Jon Vislie (eds.), Natural Gas Markets and Contracts. Amsterdam: North Holland, 1987, p.14. Curiously, Noreng argues that Groningen pricing was "competitive" and that NAM was aiming for market share rather than economic rent.

the tone of Soviet relations with the West contextualized this development. The 1969 election of Willy Brandt as Chancellor brought about a major shift from the policy of non-engagement of East Germany that had obtained under Konrad Adenaur's Christian Democratic Union. Brandt's Ostpolitik, based on a desire for "a policy of dialogue with the Soviet Bloc, and a certain acceptance of the postwar political divisions in Europe," was manifested in a series of treaties signed with the U.S.S.R. and several East Bloc states between 1970 and 1973.[102] Ruhrgas, it is worth noting, hardly needed such formal endorsement, initiating negotiations with the Soviets in 1969. The second trend was the wider East-West détente that emerged in the early 1970s, a development that reflected the preferences in the Nixon administration in the United States for a re-unified Germany, and for a reduction in Soviet-American tensions.[103] The Soviets, faced with a downturn in their relations with China, responded favourably, viewing the export of gas to Western Europe as a means to generate hard currency, to make up for falling oil production, and to obtain the high-quality pipe manufactured in Germany.[104] Significant Soviet gas flows began to arrive in Germay in 1973 through the 4,500-km Urengoy pipeline through Ukraine and Eastern Europe, and in Italy through the Trans-Austrian gas (TAG) pipeline

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[102] See Grieves, Forrest L. and E.B. Portis, Review of Reluctant Realists: the CDU/CSU and West German Ostpolitik, by Clay Clemens. Journal of Politics, Vol. 52, No. 4, 1990, p. 1315. The treaties included: the Treaty of Moscow (August, 1970), the Treaty of Warsaw (December, 1970), the Basic Treaty (December, 1972), and the Treaty of Prague, December, 1973).

[103] These dynamics are explored in detail in Niedhart, Gottfried. The Federal Republic's Ostpolitik and the United States: Initiatives and Constraints, in: Burk, K./Stokes, M. (Ed.): The United States and the Europaen Alliance since 1945, Ofxord et al., 1999, pp. 289-311. On the origins of Ostpolitik, see Krell, Gert, "West German Ostpolitik and the German Question," Journal of Peace Research, Vol.28, No. 3, 1991, pp. 311-323 .

[104] Garthoff, Raymond L. Détente and Confrontation: American-Soviet Relations from Nixon to Reagan. Washington, D.C.: Brookings Institution, 1994, p.12. On oil production and the 'gas for pipe' arrangement with Germany, see Stern (2005), "Pipeline Cooperation Between Political Adversaries: Examples from Europe," p.2. By the 1980s, Victor asserts, "the Soviet Union was earning about US$15 billion per year from gas and oil exports, or more than 62% of its total hard currency earnings." Nadejda Makarova Victor, "Gazprom: Gas Giant Under Strain," Working Paper #71, Program on Energy and Sustainable Development, Stanford University, 2008, p.10.

a year later.[105] The other high-order importer, France, became involved in 1976 through swap arrangements involving Italy and the Netherlands (though it did not actually receive Russian gas until the completion of the MEGAL pipeline through Germany in 1980).

National firms in Norway and Algeria moved, in the mid-1970s, to secure long-term agreements with continental buyers. The big transmission companies (Ruhrgas, Gaz de France, Gasunie and Belgium's Distrigaz) all negotiated contracts for Norwegian gas between 1972 and 1975, with deliveries arriving via new pipelines from the Ekofisk field in the North Sea by 1977. Algerian exports took the form of LNG deliveries to Spain and, later, Portugal, but political and commercial problems plagued the relationship from the start, and Algerian exports flowed far less smoothly than those from Norway or the U.S.S.R. The 1983 completion of the Trans-Mediterranean pipeline to Italy eventually demonstrated the potential of undersea pipeline deliveries, but a link to the Iberian peninsula was not established until 1996.[106]

By the end of the 1970s, the new players were well established, but the field was still characterized more by consensus and order than competition and conflict. Among importers, transmission companies retained their positions as gate-keeping middle-men between foreign producers and domestic distributors (Fig. 3.1), and general respect for national autonomy was maintained. Golombek characterizes this as an effective

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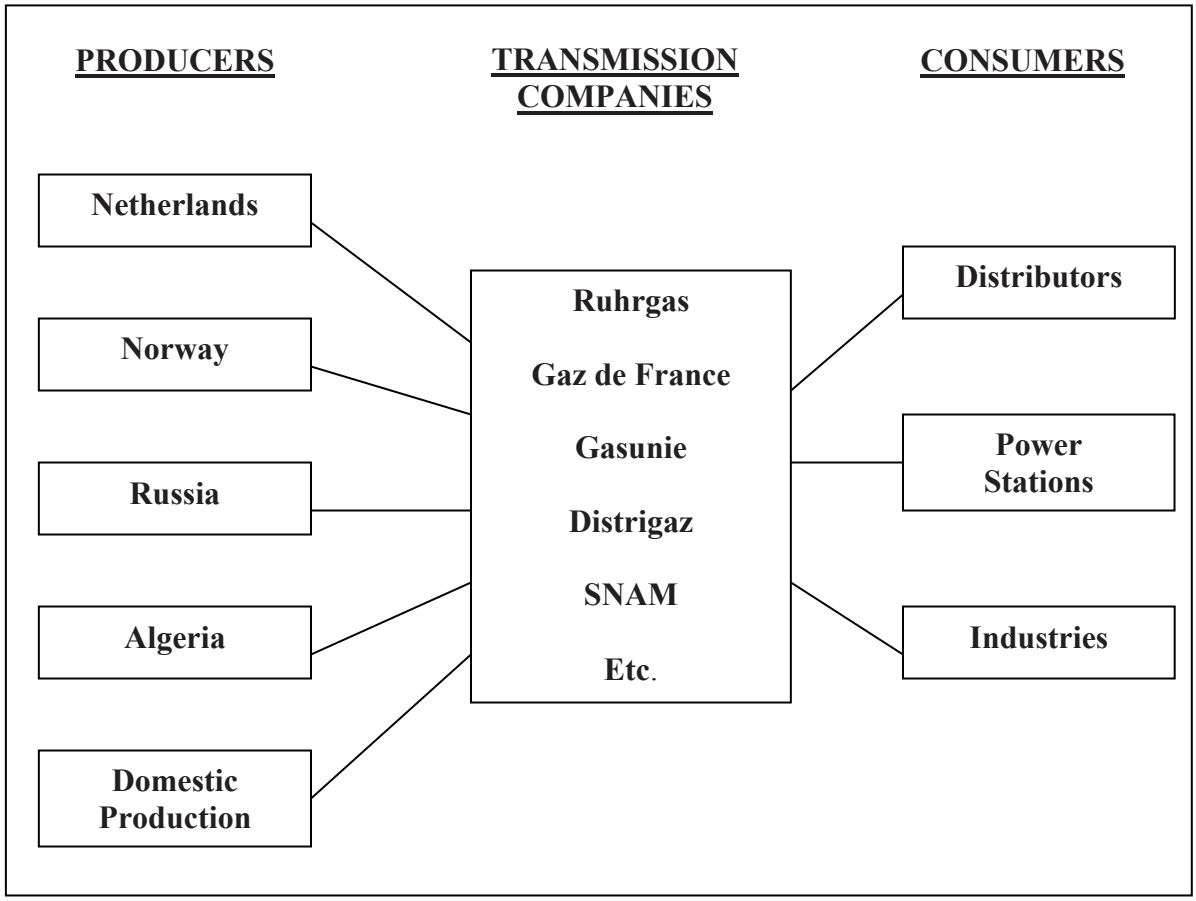
[105] Ibid, p. 111. The Soviet Union delivered gas to Austria as early as 1968, but the volumes were minor: 0.1 bcm compared to West German receipts of 2.5 bcm by 1975. Source: "The Role of Oil and Natural Gas in Soviet Trade with the West," Economic Bulletin, Vol.11, No.6 (July, 1974), p.59. The first contract between Ruhrgas and the Soviet Union narrowly preceded the formation of Soyuzgazexport in 1973. Jonathan Stern, "Gas Pipeline Cooperation Between Political Adversaries: Examples from Europe," Report Submission to Korea Foundation, Chatham House, 2005.

[106] The eventual Maghreb pipeline through Morocco and under the Strait of Gibralter finally allowed the relationship between Algeria and Spain to operate tidily. A concise summary of this relationship and its difficulties is provided by Stern (2005: 6-10).

Figure 3.1 Main Features of West European Gas Market Structure in the 1980s[107]



monopsony that freed transmission companies to pursue "biased diversification" that gave "volume preference to the most price-elastic supplier, the Soviet Union," but maintained their access to Norwegian and Dutch gas. "Thus," they suggest, "a strategy of both supply diversification and differentiated treatment by the monopsony may [have enhanced] stability in the market, by establishing informal guidelines for the behaviour of various oligopolists," affecting market behavour (and hence market structure) by further reducing the potential for conflict and competition among transmission companies.[108]

[107] Image a replication of one developed by Radetzki (1992: 95).
[108] Golombek (1987: 25); Estrada et al (1988: 89).

There was also an unexpected and "remarkable complementarity" of interest among the exporters. The Soviet Union, Norway and Algeria had different motives in their entry into European markets: where the latter two exporters were driven by the desire for rent maximization, the Soviets sought market share, and were willing to accept lower prices than Norway or Algeria.[109] "This tacit cooperative arrangement," Nøreng suggests, "reduced competition in the West European gas market, also reducing the volume risk for the Soviet Union [and] the price risk for Algeria and Norway" in the early 80s. Despite the exporters' different approaches, there was something of a Prisoner's Dilemma in their interactions. Nøreng cites exporter uncertainty of each other's next steps as an important determinant of their behaviour – more important than considerations like demand forecasts. In such an environment, i.e., where uncertainty "generally fosters a defensive behaviour" that would encourage price-undercutting, it is "in the suppliers' self-interest not to practice outright competition" because there is potential for them to "gain by voluntary restraint and by sending each other signals that they are not interested in maximizing market shares at any price."[110]

Varying degrees of discord did find their way into the regime, however. Management consensus notwithstanding, it has been suggested that the 1970s and 80s saw something of a tug-of-war for control in various countries between transmission companies and governments, with a discernible shift toward greater autonomy for the

[109] The other large exporter, the Netherlands, also pursued a market share strategy, one made necessary by the need to substitute gas into an energy market dominated by other fuels; a number of authors have stressed, , though, that this does not obviate the rent-seeking intentions of the Dutch government in exporting Groningen gas. See, for example, Loren C. Cox, "Western European Natural Gas Policy: Management or Markets" in MIT (1986: p. 2-10).
[110] Noreng (1987: 16-19).

former, particularly in importing countries, but in some exporters as well.[111] A principal driver of this shift was the fear engendered in Western Europe by the OPEC price hikes of 1973-74. Facing declining domestic production, and in light of a Dutch strategy of controlled production and export, European importers were already concerned about securing new supplies when the 1973 OPEC shocks sent oil prices soaring, making natural gas far more economically and politically appealing.[112]

Estrada et al argue that "everything changed" in the wake of the OPEC price hikes. Importing states, unnerved by the prospect of shortfalls and dislocations, ceded authority to transmission companies in negotiations with the Soviets and Norwegians, a development which, the authors argue, spurred these contracts to completion.[113] Moreover, the involvement of these new actors created a need for new pipelines; this altered further the role of transmission companies, making them "active investors in expanding the international pipeline network," a process that continued throughout the decade.[114] It is at this point that German transmission companies took a major step in expanding their influence. Gas from Groningen has a relatively low calorific value (i.e., 'L-gas'), and is not considered an equivalent to the higher calorific value gas ('H-gas') that comes from the North Sea or Russia. Partially for this reason, as Davis writes, a decision was made in Germany in the 1970s to build a separate pipeline system to carry H-gas, only mixing it with the Netherlands' L-gas at the level of local distribution.[115]

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[111] Both Stern (1985: 4-30) and Estrada et al (1988: 225) outline the general institutional picture in Norway, where the state granted Statoil considerable leeway in managing the gas business, creating policies that allowed foreign and domestic North Sea producers to negotiate export contracts "without hindrance" from the Ministry of Petroleum and Energy. (Stern, 1984: 24).
[112] Estrada et al (1988: 77-78).
[113] 1988: 95.
[114] Ibid, pp.74-78, 95. See also Noreng (1987, p.14).
[115] Blue Gold, p. 189.

Apart from mitigating the influence of the Dutch pipeline operators, this development made Germany the new "centre of gravity" in the contintental transport of the new gas.[116]

The expansion was also occurring in a context of heightened political concern in the wake of the OPEC crises – states, concerned about meeting domestic demand and diversifying supply, overlooked the over-supply of gas that existed at the time and endorsed the renegotiation of many of the original contracts at the decade's end.[117] They also found a new way to involve themselves. From the start, the Soviet Union lacked the resources and expertise to meet its new contractual obligations, a requirement that European firms were happy to meet, arranging with their governments for "credit-financed deliveries of investment goods for the gas industry" (e.g., pipe and compressor station equipment), and incorporating it into new contracts.[118] In addition, as gas imports from the Soviet Union increased by the early 1980s, concern among European governments – Italy, Germany and France, principally – over the wider balance of trade with the U.S.S.R. prompted less welcome state "intervention in international gas import contracts" in the form of demand for countertrade.[119]

This important concern – i.e., of European states over the wider impacts of gas imports on their own societies – proved crucial in resolving a thorny dispute in the late 70s and early 80s with the United States. Renegotiations with the U.S.S.R. centred on a massive expansion of the Soviet pipeline network, which was necessary to access the giant Urengoy fields of northwest Siberia, and the Soviets negotiated technological

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[116] Ibid.
[117] Estrada et al (1988:111).
[118] Economic Bulletin, Vol.11, No.6 (July, 1974), p.59.
[119] Estrada et al (1988: 95). This point is also addressed in K.F.L. Niebling, J.L. Russell, and M. Shubik, "Some Thoughts on Geopolitical Factors Affecting Natural gas Supply Schemes for Western Europe," Technology in Society, Vol.6, No.2, 1984, p.113-114, and Jonathan Stern, "Specters and Pipe Dreams," Foreign Policy, Vol.48 (Autumn, 1982), pp. 26, 30.

assistance into the new contracts. The scale of the project presented importing governments with a sterling opportunity to spur their own economies, and to curry political favour by tendering lucrative contracts to domestic firms. Geopolitically, however, the timing could not have been worse. The 1980 Soviet invasion of Afghanistan and the declaration of martial law in Poland the following December encouraged Washington to interpret the project as exactly the sort of Soviet expansionism that needed to be curtailed – as one observer put it, "the strategic context of [gas] security discussions was ultimately reduced to the question, 'is it advisable to import a growing proportion of a strategically vital commodity from your primary strategic and military adversary?'[120]

At the time, European importers were haggling unproductively with Statoil, Gasunie and Sonatrach over price, a problem that the Soviets did not present. Additionally, because the Urengoy project promised to boost the steel and pipeline industries in Germany, France and Italy that were ailing at the time, backing away from the project would have jeopordized jobs on the order of "tens of thousands," a political problem that no government could reasonably invite.[121] The U.S. effort to discourage the deal began with diplomacy; when that failed, it turned to sanctions, suspending the licenses in December of 1981 of the Caterpillar tractor manufacturer and General Electric, eventually attempting to extend its restrictions to European firms operating under license of General Electric. At this point, the Europeans dug in – the French government backed its firms, "ordering all French companies to fulfill their contract obligations with the Soviets," and was joined in short order by Italy and the United

[120] Stern, The Future of Russian Gas and Gazprom, p.140.
[121] Stern, "Specters and Pipedreams," p.29, 30.

Kingdom.[122] In West Germany, Ruhrgas led other heavy industries and unions in pressing Bonn to carry through on the deal. Clearly, European actors did not share the American view of gas trade expansion with the U.S.S.R., portraying Soviet gas imports "in a positive political context of 'engaging' the U.S.S.R. in a dialogue."[123] The expansion itself, moreover, was not necessarily seen as a departure from the status quo so much as an enhancement of it. As Niebling et al expressed it in 1985:

> … Soviet gas has been flowing into West Germany for over eight years now, in exchange for massive deliveries of large-diameter steel pipeline and other related equipment, and so, to many in West German financial, commercial, industrial and political circles, the "new" big deal seems little more than a routine extension of existing trade relations.[124]

Finally, beyond the domestic constraints that would have made acquiescence to the U.S. position politically toxic, the post-73 withdrawal of states from contract negotiation would have made political interference extremely difficult. Ruhrgas, it is argued, "was under no political constraint during negotiations and the government had no actual role to play except to approve of or object to the terms" that the company obtained in the "extremely tough, but wholly commercial, negotiations."[125] In the end, European governments preferred a political and legal confrontation with the United States to domestic entanglements with their natural gas firms, and with other actors who were enjoying their spin-off benefits.[126]

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[122] Ibid, 31-32.
[123] Stern, The Future of Russian Gas and Gazprom, p.141. The author goes on to suggest that this view was "neither necessarily well-reasoned nor based on empirical evidence, but it [was] extremely popular with European politicians and media."
[124] K.F.L. Niebling, J.L. Russell, and M. Shubik, "Some Thoughts on Geopolitical Factors Affecting Natural gas Supply Schemes for Western Europe," Technology in Society, Vol.6, No.2, 1984, p.114.
[125] Ibid, 114.
[126] Debate exists as to whether an oft-cited residual component of this episode actually occurred, namely, a tacit agreement between the US and its NATO partners to limit on each country's Soviet imports to no more than 30 percent of its overall imports. See, for example, Marshall I. Goldman, Petrostate: Putin,

With the major contract negotiations secured for Norwegian and Soviet gas, and with tacit settlement of the disagreement with the United States, there was less drama in the European gas scene in the latter half of the 1980s. European production – with Soviet figures included – increased by just over 10 percent between 1986 and 1990, mainly on the strength of Soviet increases, with Norwegian and Dutch volumes stagnating. Consumption figures featured a similar growth rate, and were likewise dependent on increases in Russian domestic consumption; growth rates were very slow in Germany and France, and negative in the Netherlands.[127] Domestic pipeline construction continued in Germany (from 66,900 km in 1985 to 77,200 km by 1990) and Italy (19,000 to 23,100) but was not overly evident elsewhere on the continent.[128] With the consolidation of alternative suppliers and the increasing success of the national gas champions, arrangements settled into a new equilibrium as the 1980s drew to a close, with the German national gas consensus having clearly enhanced its position.

3.2 ANALYSIS

3.2.1 The Advent of German Gas Hegemony

A number of factors contributed to the German acquisition of *asymmetric influence* in the early years of the European NGR. The most obvious is market size – in

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Power and the New Russia. Oxford: Oxford University Press, 2008, p.166. Assuming such agreement existed, an excellent treatment of actor adherence to the 30 percent limit, and of the legal basis for such a restriction, is offered in European Commission, "Differentiating Reality from Rumours: Some Considerations on the Alleged Restrictions on Natural Gas Imports from Russia," December 18, 2003. Accessed 12 May, 2011, from: http://ec.europa.eu/energy/international/bilateral_cooperation/russia/doc/issues/. gaz_import.pdf

[127] Only in Italy did consumption increase markedly. BP Statistical Review of World Energy 2009.

[128] Pipeline statistics drawn from Jonathan Stern, Competition and Liberalization in European Gas Markets: A Diversity of Models. London: Royal Institute of International Affairs, 1998, p.16.

1965, Germany lagged behind the other buyers of Dutch gas, consuming slightly more than half of what France did, and nearly a third of the Italian total. But a decade later, German consumption exceeded that of France and Italy combined. Firms like Ruhrgas expanded quickly, realizing what Odell referred to as 'super-normal' profits, largely free of external scrutiny. Its growth both reflected and reinforced government enthusiasm for the commodity – its status as a private firm, "together with the reliable energy policy framework in Germany made it possible for the company to flourish and continually adapt to the far-reaching changes taking place on the world's energy markets, particularly during the energy crises."[129] Pipeline and consumption data confirm this growth. In 1965, the combined length of French and Italian pipeline infrastructure amounted to 91.3 percent of Germany's, as per Table 3.1, below. But by 1975, the French and Italian share of the German total fallen to 74.3 percent, with Germany's value more than doubling.

Table 3.1 Natural Gas Expansion, 1965-1975[130]

Pipeline Development (km) 1965 – 1975	Country	National Consumption (BCM) 1965 – 1975
20.700 – 43,600	Germany	2.9 – 43.7
13,500 – 19,200	France	5.5 – 18.9
5,400 – 13,200	Italy	8.1 – 20.0

[129] E.ON Ruhrgas AG, "Company Development," accessed 13 July, 2011, from http://www.eon-ruhrgas.com/cps/rde/xchg/SID-63491921-839D1209/er-corporate/hs.xsl/599.htm?rdeLocaleAttr=en.

[130] Pipeline statistics in Stern (1998:16); for consumption statistics, c.f. note 28. On consumption, see BP historical data, accessed 10 July, 2010, from http://www.bp.com/sectiongenericarticle.do?categoryId=9023781&contentId=7044478.

Such dramatic infrastructural expansion, aided by the H-gas considerations cited above, can only have motivated German transmission companies – and those of other countries as well – to justify these expenditures by selling more and more gas, and certainly provided them with a rationale to exert whatever supply-side pressure they could on domestic buyers and governments. Because it housed the largest market, these trends were more pronounced in Germany than anywhere else, with the country becoming, from 1970 on, the largest consumer in Western Europe. The existing commercial tools and conditions that were available to Germany, then – geography, market potential, and the opportunities offered by the introduction of H-gas – positioned the country favourably in relation to its neighbours where the generation of benefit through higher-volume sales were concerned.[131]

The second reflection of Germany's ability to use existing tools or conditions derived from straightforward geography. From the beginning, Germany proved a crucial facilitator of Dutch exports, carrying Groningen gas across German territory into France, Switzerland and Italy. The country's importance was enhanced when Soviet imports were initiated in 1973. In the atmosphere of near-panic among Western governments after the first OPEC price hikes, supply diversification was the order of the day and, through a combination of foresight and geographic luck, Germany became the entry point into West European markets for Soviet gas. This made it the main carrier into third countries, a service for which it naturally levied healthy transit fees.[132] When Norway entered the fray in the late 1970s, the German position was further strengthened: its pipeline links to

[131] See Estrada et al (1988: 87), Davis (1984: 182-184), and the BP Statistical Review of World Energy 2009.

[132] Soviet gas had been flowing into Austria as well, from 1968 on, but the volumes in comparison with those that began to flow into Germany were miniscule.

North Sea gas, combined with its near-exclusive control over Soviet supply, made it the central player in the swap arrangements utilized by every major importer in Europe. Again, these were commercial benefits engendered by German pipeline investment – in turn engendered by domestic market expansion – that were less available, or unavailable entirely, to other actors.

The clearest case of *distributional conflict* in phase one, defined for our purposes as actor ability to prevail in direct contests with other actors, is found in the shift in bargaining advantage from exporters to importers after 1985, as discussed by both Estrada and Nøreng. Ironically, this shift is rooted in the heyday of natural gas exporters in Europe – after the first two oil shocks, exporters' positions were buoyed by high prices and increasing demand; for some, this made the bargaining position of gas exporters, in the period between 1973 and 1983, more favourable "than before or afterwards."[133] Another observer suggested that "(e)very possible indicator favoured the seller: the second oil price shock had just occurred; most European gas market projections were showing a supply 'gap' of mammoth proportions."[134] The drastic increases in oil price and anxiety were key drivers of the increases in gas consumption, which of course required new import contracts, which fed in turn into the reflecting/reinforcing dynamic vis-à-vis government, industry and consumer enthusiasm for natural gas suggested above. But important seeds of change that were planted with the first oil crisis were reinforced when the second oil crisis arrived in 1979. Importers anticipated the same sort of spike in gas consumption that had occurred during the first shock, and reacted in much the same way as they had several years earlier: by ordering more gas, and by paying the high

[133] Noreng (1987: 14).
[134] Jonathan Stern, "Norwegian Gas Exports: Past Policy, Current Prospects and Future Options," Energy Policy, Vol. 18, No. 1, 1990, p. 55.

prices still being sought by Dutch and Norwegian suppliers, who were able to capitalize on their customers' fear over tightening markets to achieve higher rents.[135] At this point, the distribution of benefits clearly favoured gas exporters.

These large contracts, however, created a glut on the market and, in late 1985, the third oil shock struck. Unlike previous crises, this one saw the price of oil suddenly plummet, taking gas prices with it, drastically strengthening the hand of the importing countries and firms:

> Importers found themselves burdened with supplies that were clearly overpriced and saddled with inflexible contracts that did not allow for any adjustments to reflect the new environment. Slowly, and painfully, exporters have had to recognize that natural gas was neither as scarce nor as valuable as they had believed. The result has been that many contracts had to be adjusted or rewritten. Relations between consumers and producers became increasingly antagonistic, and until the signing of the [Norwegian] Troll contract [in Spring, 1986], it appeared that no major new natural gas supplies would be developed, at least during the remainder of the 1980s.[136]

The effect among exporters was dramatic, as evinced in the Norwegian experience. From the start, Norway and Statoil had painted North Sea gas as a 'reliable' alternative to Algerian and Soviet supplies, brashly emphasizing that the premium price would be the norm in the future. And in 1980, Ruhrgas paid the highest price in company history for gas from the Statfjord field, arguing that it was better for expensive gas to flow to Germany than for cheaper gas to flow to the other interested buyer, the United

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[135] As a 1986 Massachusets Institute of Technology (MIT) report suggested, the "second oil price shock, coupled with concern about security of energy supplies, appeared to provide new opportunities for market penetration by gas … Because of optimistic expectations about future demand and pessimistic expectations about future domestic supply and world oil prices, consumers signed import contracts for large quantities of additional natural gas, agreed to contracts with rigid take-or-pay clauses and rather high built-in prices. Producers, extrapolating long-term market trends from short-term market conditions, insisted on such contracts as a means for ensuring maximization of their rents. Massachusetts Institute of Technology, "Western European Natural Gas Trade: Final Report." International Natural Gas Trade Project, Center for Energy Policy Research. MIT EL 86-010, December 1986.

[136] Executive Summary (author unnamed). MIT (1986: 1-2).

Kingdom.[137] But conditions for North Sea gas began to change, even before the 1985-86 crash. In February, 1984, the British government cancelled an agreement on Norway's Sleipner field, marking the first time that "Norwegian gas sellers had failed to secure an outlet for their reserves, just as the market was turning round to their disadvantage," and marking a "change of bargaining power between buyers and sellers."[138] And when talks began over the giant Troll field in 1985, Belgium's Distrigaz refused the Norwegian price demands, opting instead to position itself within a European gas-importing consortium headed by Ruhrgas which negotiated a much more favourable arrangement:[139]

> … the outcome [was] on all principal points far removed from the 'premium price' notion advocated by Statoil at least until 1983. The company was forced to accept the 'market value' approach so eloquently propounded by Ruhrgas on behalf of the consortium on numerous occasions. This must be the most dramatic turn-about in the European gas market for many years.

Even worse for Norway, the consortium managed to negotiate a retroactive clawback of the Statfjord price, an astonishing reduction of some 40 percent. For Estrada et al, this is a concrete reflection of the new bargaining dynamics, which by 1985-86 strongly favoured the purchasing cartel that continental transmission companies had organized themselves into.[140] The cartels (or consortia) represent another important development of this period; seeking a a unified front, continental transmission companies negotiated with the Norwegians and Soviets as blocs, creating new bargaining leverage that "completely

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[137] While Estrada (1988: 112) paints this result as evidence of 'skillful' Statoil manipulation of competition among transmission companies, he provides additional context: Ruhrgas negotiations with the Soviets were apparently lagging at the time, and British Gas was seeking to secure supplies from Norwegian fields. Dutch gas was unavailable at the time and the price, he asserts, was "competitive."

[138] The bulk of this summary of the Norwegian experience, including all quotations, is drawn from Estrada et al, (1988: 216-220) except where otherwise noted.

[139] Insights into the crucial role played by Distrigaz in this episode provided by Dr. Jerome Davis, personal correspondence.

[140] 1988:220

changed" the "organization of the industry."[141] Germany was at the forefront of this development, heading up the two principal cartels that emerged. Golombek asserts a "core" of firms comprising Ruhrgas, Gaz de France, Distrigaz and Gasunie, while Estrada et al assert that negotiations with Norway also included Thyssengas of Germany. Negotiations with the Soyuzgazexport omitted the Dutch and Belgian firms, and included a number of smaller German companies. The approach worked in both cases. Again, the Soviet Union had never sought high profits, but Norway was forced to abandon its premium price approach in 1986, and the terms of sale for its newest North Sea field – Troll – reflected buyer preferences to an unprecedented degree.

The Statfjord episode reflects German actors' skillful, organized response to changing external conditions in the third shock, and to awareness of the bargaining advantage that importers had acquired through the natural gas glut of the mid-80s, and through the degree of desperation and sensitivity that was evident in Norwegian political circles. From a *coercive influence* perspective, Germany, and German-led cartels, achieved noteworthy objectives by bargaining hard, a position they were able to adopt because they had accurately assessed the strength of their own position and the weakened position of the Statoil officials across the table. Soviet supplies gave the cartels a very viable outside option – Urengoy gas was flowing, the Soviet-German relationship was highly cooperative, and Moscow was still more concerned about market security than profit. Further, the mid-80s glut on the market forced Norway to deal with the cartels on their terms – no divide-and-conquer approach was possible, and no sellers' cartel could emerge to counter them.

[141] Golombek (1987: 20); Estrada (1988: 83, 98). In the case of negotiations between the 'continental consortium' and Norwegian officials over North Sea gas, for example, the consortium approach served in the Statfjord case to keep British firms at bay. See Stern (1984: 19-21).

The cartel, it seems, interpreted these dynamics skilfully. It accurately discerned very low risk that Norway would walk away from the negotiations because Statoil needed continental buyers. Moreover, as Estrada et al argue, risk for the project had been transferred, by virtue of government investments supporting the development of the field, to the state, which had suffered public relations damage from its perceived failure in the Sleipner negotiation. Oslo was therefore in no position to suffer the political fallout of another high-profile setback, and the government endorsed the agreement, having "chosen to retain arms-length distance from the bargaining." Finally, all of this was occurring alongside an increase in the importance of gas export revenue to the national economy. As Estrada et al assert, the "need to achieve a successful outcome was so strong that it became a virtue of necessity to make the required concessions." Crucially, they add, there was "no reason to believe that the buyers were not also fully aware of this situation."[142]

The role of *reputation* in the dynamics of the first phase also seems, in comparison with later eras, to have been minimal, particularly in the 'toughness' sense lauded by Alt et al. There was, for example, nothing uncertain in Norwegian or Dutch eyes where the outside options of their buyers were concerned; and buyer utilization of those options would have been less an example of toughness than simple common sense. In the Keohane sense of 'positive' reputation, however, we can see developments. West European buyers – and again Germany stands out in terms of volume, cash generation for Moscow, and breadth and depth of integration with Soviet aims – can only be said to have enhanced their reputation for reliability with their Soviet partners in the wake of the dispute with the United States. Coming fairly early in the Soviet-European relationship (it

[142] 1988: 220

will be remembered that Russian gas did not flow in any substantial way to Western Europe until 1973-74), this decision defied Cold War dictates in favour of domestically-driven realpolitik within European states, a point that would not have been lost on Kremlin officials, providing a 'cement' to the relationship that remains to this day. Such solid customer reliability undoubtedly existed in Norwegian, Dutch and Algerian minds as well, though in these cases the central issue of pricing was an important circumscribing influence that did not exist in buyers' relations with the U.S.S.R.

This discussion of German hegemonic ascension forces us, by definition, to treat *hegemonic decline* in rather muted terms. However, we can point to instances of apparent decreases in actors' ability or willingness to control the institutional environment. One lies in the demise of Dutch influence – in the early days of the industry, the Netherlands was the sole exporter of natural gas, and although its 'hegemony' could be questioned on the basis of intra-firm ownership of the various transmission companies, and of the degree of buy-in among other states to NAM's premium price structure, there is no doubt that the Dutch were getting what they wanted from the wider enterprise. This changed in the late 1970s, when the Dutch took the surprising step of announcing that they would not renew export contracts that were about to expire, and demanded that the price of gas be pegged to that of crude oil. The first decision can only have solidified importers' enthusiasm for the Urengoy pipeline expansion, and to take greater note of Algerian potential as well.[143] The second decision was slightly more successful – importers accepted the high prices, but negotiated a softer linkage to the crude price and extracted volume concessions from Gasunie in a way that gave buyers the option of taking less

[143] On the role of the Dutch decision as an incentive for Europeans to expand their trade with the U.S.S.R., see Davis (1984: 201-203).

Dutch gas in favour of Algerian/Soviet supplies, effectively turning Groningen into a 'swing' field that balanced excesses and shortages from other suppliers – not a bad thing from a systemic, 'god's-eye' view, but likely not what Dutch planners had in mind.[144] This development points to the Netherlands' inability to force buyers to accept its terms, and a drastic increase in importers' ability to resist by repackaging unfriendly terms into something more palatable or simply by going elsewhere, and to force unwelcome conditions on the Netherlands. These developments highlight a second (albeit muted) instance of hegemonic decline, i.e., the previously-cited shift in bargaining advantage from exporters to importers.[145]

Some have argued that a third incidence of hegemonic decline – again, a muted case – lies in the shift *within* states in favour of transmission companies, at states' expense. Management consensus, government regulation and state contract endorsement notwithstanding, there was a decline of direct state influence over the industry from the 1970s on, as reflected in the assertion that a "combination of ignorance and weakness" and "complacency among consumers" was enough "to leave companies to organize the energy industries as they wished."[146] This is logical enough – once the discussion over national gas resources was framed in ways acceptable to states, and once initial policy, practice and finance were implemented, it is not unreasonable to expect the institutional

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[144] The argument over the degree of 'pegging' to crude prices centres on two issues: the actual price itself, and the amount of time that gas price increases/decreases are to 'lag' behind changes in the crude price. A typical lag today, for example, is six months.

[145] Again, this shift is attributable to the outside options that appeared for buyers when Algeria, Norway and the U.S.S.R. arrived on the scene, to the emergence of buyer cartels, to the existence of differing motives among the exporters, and to combination of the early-80s glut on the market and drastic fall in world price in the 1985-86 shock.

[146] Estrada et al (1988: 94). Both Stern (1985: 4-30) and Estrada et al (1988: 225) outline the general institutional picture in the Norwegian example, where the state granted Statoil considerable leeway in managing the gas business, creating policies that allowed foreign and domestic North Sea producers to negotiate export contracts without interference from Oslo. Throughout, Statoil was able to "pursue a negotiating strategy without hindrance" from the Ministry of Petroleum and Energy. (Stern, 1984: 24).

and practical clay that states were working with to have become more difficult to mold and, by virtue of the hands-on involvement of private firms, more distant for states. This trend was furthered by the 1973 OPEC crisis, which inspired a fear of disruption in Europe that provided transmission companies with freedom in their negotiations with the new exporters, with governments giving their "full support to the transmission companies running the negotiations."[147] As the industry expanded, and as benefits direct (for firms) and indirect (for everyone else) began to be realized, this separation could only have become more pronounced – the industry became increasingly indispensable, a juggernaut whose disruption would naturally become the number one fear of all parties concerned.

The German rise, in sum, cannot be attributed solely to the declining influence of others, to any creative genius by Bonn, to its huge domestic market, to the rapid expansion of natural gas consumption and infrastructure across Europe, to sound, opportunistic management at Ruhrgas, or to the luck of simple geography. Clearly, its ascension is attributable to the mix of all of the above. But it seems equally clear that Germany needed other European actors far less than others needed Germany, that German initiative proved crucial to the ability of other actors to obtain or sell the gas they needed, and, by the late 1980s (and beyond), that this dominant German influence was entirely consistent with the stability of the overall gas enterprise in Europe.

3.2.2 German Hegemony – To Contest, or Not to Contest?

There is something about the speed with which the NGR expanded and deepened in Europe that suggests a degree of satisficing among other actors where the motive or ability to resist growing German hegemony was concerned. From a very limited

[147] Estrada et al (1988: 95).

utilization of natural gas in the mid-60s, European states and economies moved into large-scale consumption and transmission within a decade, learning to operate on very kinetic terrain that saw the exporters' club suddenly expand from one to four, and that forced states, firms and consumers to interpret and respond to OPEC-induced energy uncertainty. With an increasing portion of each country's national economic (and social, and political) health on the line, the growing importance of Germany was likely the least of their concerns. In the main, the benefits that were accruing to Germany were flowing into benefits for other states as well, a complementarity of interest that would have been far more costly to disrupt than to accept. In the absence of drastic relative-gains thinking among its neighbours, then, Germany's ascendance to a hegemonic position was nigh on inevitable from the moment the Netherlands decided to export Groningen gas. When the U.S.S.R. became part of the NGR, it became even more certain. There was no obvious reason for other importers – most notably France and Italy, but also smaller importers and transit states like Switzerland or Austria – to oppose German success in this issue-area. Within the friendly confines of a NATO whose raison d'etre was still to be a counterweight to Soviet influence, and with gas existing as a somewhat secretive and esoteric realm that few would have understood – let alone been able to measure differences in the net benefits from one country to the next – it seems fairly clear that other European importers could accept the German rise.

Norway and the Netherlands would have found this more difficult. They had the same interest as other European actors in the maintenance of a stable order within the gas trade, and in the provision of predictability, profitability and confidence in the arrangements. But exporters were, and are, always going to wrestle with the question of

whether or not they are maximizing the direct pecuniary benefits and indirect, stability-related benefits of a contented populace, satisfying state-firm relations, and a growing economy. They will also struggle to maximize their share of the benefit surplus. In this sense, unlike Germany's fellow gas importers, the exporting states did have a motive to try and hold their ground against the German ascension by prevailing at the negotiating table. But this is precisely where both countries experienced setbacks. The Netherlands underestimated buyer willingness to switch to other suppliers when they tried to hike prices in the late 1970s, and were forced to exchange those gains they did negotiate for volume flexibility in existing contracts (gains which, in any case, could hardly have troubled German transmission companies, who could simply pass those increases on to local distributors). The Norwegians found themselves trapped by their own premium price policy in the mid-80s, when the glut on the market and plummeting world oil prices combined with the emergence of German-led buyer cartels to force major (and retroactive) price concessions.

It is also worth restating that ownership involvement of oil multinationals in the major German (and Dutch) gas firms had the potential to discourage any move to disrupt the evolving flow of things out of concern for how 'big' Germany's gas complex was becoming. This need not be taken as an assertion that Shell or Esso were running the entire enterprise; it merely re-emphasizes the ability of such actors, particularly given the prevalence of management consensus, to influence the direction in which the NGR was progressing. The kinship among European transmission firms is also endorsed by the reference, by some authors, to a transmission company 'club' characterized by ever-deepening, community-like interconnections:

"… it is important to emphasize the very close, family-like relations that tie transmission companies together. Their executives know each other well and have many opportunities to exchange information and experiences. There is continuous communication … to arrange swaps, transit contracts, joint ventures to build trunklines, etc. The limited number of companies and executives involved creates a feeling of belonging to an international 'club.'"[148]

Such a strong counterveiling influence, combined with the inability of gas regime actors to pause for any length of time to consider radical adjustments, further encourages the view of complementarity of interest that other European actors enjoyed with their German partners. A fellow importer would have had to temper any potential complaint to Bonn with the benefits accruing domestically. Sellers would have been discouraged from objecting by something even more unpalatable – the spectre of a massive, disgruntled buyer with viable outside options.

[148] Jonathan Stern, International Gas Trade in Europe: The Policies of Exporting and Importing Countries. London: Royal Institute of International Affairs. 1984, p. 98.

CHAPTER 4 1991-1999 – COMPLICATIONS OF THE SOVIET DEMISE

The clarity of the first phase (1965-1990) was not replicated in the second. The Soviet dissolution created new transit states – the Baltics, Belarus and Ukraine, primarily – and altered the status of actors in Eastern Europe in such a way that they effectively became new parties to the NGR. Eastern Europe had always been geographically and functionally relevant to the regime, with Hungary, and Czechoslovakia (before and after the 1993 Velvet Divorce) having carried Soviet gas to Europe since 1968.[149] But when Soviet gas arrangements unravelled with the Union, all of these new actors – and Russia, too – struggled to make sense of the new environment and determine a favourable posture. Two aspects of these trends are noteworthy. The first is the pronounced element of limbo that these states found themselves in for most of the decade. The terms of their gas dealings with Russia changed dramatically, and varied across the region, but they continued almost exclusively to receive the bulk of their gas from the East. The sole exception to this was the Czech Republic, which made the important decision in 1996 to diversify supply by building an eastward-flowing pipeline from Germany for Norwegian gas.

The second aspect took shape between 1994 and 1996, when nearly every East European state applied for EU membership. This development had little immediate implication for the natural gas trade, but it foreshadowed future complication. The expansion of the European perimeter to encompass thousands of kilometres of formerly Soviet-owned pipeline engendered potential tensions on a number of fronts: the political obligations of the EU, the interests of existing member states, the nationalist impulse in

[149] Discussions for Poland to deliver Russian gas through the Yamal pipeline started in 1993.

Eastern Europe, the fluctuating continental gas environment (i.e., via liberalization and the ECT), and old-fashioned pipeline economics. In phase two, however, these tensions derived something of a stay of execution – EU expansion did not occur until 2004, and the Czech pipeline remained the only significant practical adjustment to the functionality of the regime. But the seeds were planted and, in phase three, the implications of EU expansion were felt more directly in the functional and political aspects of the NGR. These impacts bear directly on the security aspect of the research question of this dissertation, and are explored more fully in Chapter 7.

The impact of the dissolution itself was far more immediate. It imposed massive disarray on the natural gas arrangements that Moscow had crafted throughout its sphere, arrangements that had had far less to do with profit than with bolstering the wider political and economic ties of the Union and its COMECON allies – as Balmaceda puts it, energy supplies "were like a bonding agent that kept the Soviet Union together."[150] This confusion was imposed on top of the havoc that the dissolution had already wrought on the economics of the country, with Russia experiencing sudden and dramatic fluctuations in GDP, inflation, and capital flight. Almost overnight, the revenue potential of natural gas became absolutely crucial to the state, no small issue given the Soviet regime's longstanding treatment of natural gas as a matter of non-market exchange within the Soviet orbit. Moreover, with the homogenizing influence of Soviet political imperatives suddenly removed, Gazprom and the Kremlin needed, in very short order, to decide on how, where, and to what extent commercial and political imperatives were to be identified and served in an environment that had changed overnight. Interestingly, despite all of the confusion, uncertainty and angst that these developments imposed on

[150] 2008: 1.

Moscow and its former clients, the post-Soviet 'imperial wreckage' did not cause overt difficulty for the European NGR. Russian production and Gazprom supplies to Europe remained surprisingly stable throughout the decade, and European buyers continued to be content with the service they were receiving from the Russian seller.

In this chapter, I expand on these dynamics and trace the patterns that emerged as Moscow struggled to make sense of the new environment. The aim is threefold: to portray the nature and magnitude of the uncertainty facing Russia as it worked to define a post-Soviet approach to natural gas; to explain the different tacks that it adopted in different countries; and to explain how these developments – which would not unreasonably have been expected to be destabilizing with regard to the European downstram – had a surprisingly minor impact on the NGR.

4.1 Pipelines, Partners and Politics

Russia's position in January of 1991 demanded a drastic re-appraisal of Soviet-crafted gas arrangements in the Near and Far Abroad. These arrangements, which had always differed from those in Western Europe, were thrown into instant disarray by the dissolution of the Union, and natural gas became, for Moscow, yet another formerly domestic issue that was now a matter of foreign policy. The news was not all bad. Russian production volumes were more stable than might have been expected, and because gas remained a state-owned concern, it escaped the tumult of the post-Soviet oil scramble. Gas was to be managed by the new corporate entity, Gazprom, created in 1989 by Gorbachev and Victor Chernomyrdin in a transformation of the Ministry of the Gas

Industry into a new state-owned, joint stock enterprise, succeeding Soyuzgazexport.[151] However, none of this made the new regional gas environment any clearer, or palliated the serious challenges within it that were, and to a significant extent remain, interlinked and mutually reinforcing. These challenges, with particular attention to Ukraine, are discussed here.

The immediate problem was the disruption of Soviet economics that occurred after 1989, and the dire cash shortage that resulted. This highlighted the importance of natural gas, which was easily Russia's most promising means to generate income. But the commodity's potential to serve as as a financial lifeline for Moscow was curtailed by domestic conditions, as suggested in the following IEA description of Russian billing practices at the time:

> Residential customers are charged according to a 'norm' which deems that one person uses 8 cubic metres per month, and a family … uses 25 cubic metres per month. The average monthly gas bill for a family is about 500 roubles. Moreover, a significant share of residential consumers do not pay the full price for their gas. Groups such as pensioners and war veterans pay only half the regulated residential price.[152]

Prices, moreover, were ridiculously low; that 500-rouble amount, a month's worth of gas for a residential dwelling even after the tenfold hike that occurred in 1994, equated to half the price of a bottle of mineral water. This problem was compounded by non-payment,

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[151] Ibid, 59. Gazprom's first CEO of the company was the un-glamorous Chernomyrdin, a career 'gas man' with no overt political ambitions. An uncontroversial figure, he saw the company through its early years and, in 1992, was appointed Boris Yeltsin's Prime Minister, another move welcomed within and without – as one foreign banker said at the time, an "oil-and-gas guy with Western contacts is a lot better running the country than some military plant director." Comments by DialogBank president Peter Derby cited in Stephen Erlanger, "Man in the News: Kremlin's Technocrat: Victor Stepanovich Chernomyrdin," New York Times [online], 15 December, 1992, accessed 1 January 2010 from http://www.nytimes.com/1992/12/15/world/man-in-the-news-kremlin-s-technocrat-viktor-stepanovich-chernomyrdin.html.

[152] IEA (1995: 181).

particularly by industrial and commercial users.[153] Clearly, if cash was to be generated, Gazprom would have to rely on export markets.

But there was no tradition of profit-centric thinking in the region – East Bloc gas relations had been based on heavily subsidized gas deliveries and barter, with a vast, Soviet-built infrastructure serving to cement the political connections among actors. The production, transmission and trade in gas occurred "independently of costs and efficiency criteria" and, with gas metering equipment nearly unknown, cross-border "gas flows were calculated only roughly on paper."[154] There was therefore an immediate need for the parties to determine the extent to which conventional market tools would replace socialist mechanisms of exchange, and to translate this into new commercial arrangements and physical reality. Worse, given the need to keep gas flowing, it had to be done 'on the fly.' For the former client states and republics, the challenge was to manage their new independence at the same time that they were mired in the same energy dependencies of the preceding decades. Given the nature of the previous relationship with Moscow, and given Moscow's level of economic desperation and political confusion, it was a situation that undoubtedly bred considerable trepidation throughout the region.[155]

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[153] Ibid. The report also argues that the "price differential between industrial and residential customers is the opposite of what it should be: i.e. residential customers should be paying more for their gas than industrial customers because of the much greater costs involved in serving them."

[154] Christine von Hirsshhausen and Hella Engerer, "Post-Soviet Gas Sector Restructuring in the CIS: A Political Economy Approach," Energy Policy, Vol.26, No.15, p.1114.

[155] The dependency element is a key feature in a compelling review of the Russia-Ukraine relationship in the 1990s by Margarita Balmaceda. See "Gas, Oil and the Linkages Between Domestic and Foreign Policies: the Case of Ukraine," Europe-Asia Studies, Vol. 50, Iss. 2, pp.257-287.

4.1.1 Adjusting to the New Gas Environment: Commerce, Politics and Variegation

Unsurprisingly, there were similarities and differences in how actors approached this task. Belarus, once the second-largest recipient of Soviet gas and now a key transit state, was keen to maintain good relations with Moscow despite its accumulation of large gas debts after the dissolution. Its answer was to lease its transmission system to Gazprom, and to endorse the expansion of the transmission system that crossed its territory en route to Europe, i.e., in the form of the Yamal pipeline. Moldova, another transit state, also found itself deeply in debt, and also conceded transmission assets for debt forgiveness and reduced gas prices, culminating in the 50 percent stake that Gazprom achieved for itself in the country's national transmission firm, MoldovaGaz.[156] There was also discord with the Baltic States of Latvia, Lithuania and Estonia, where Gazprom imposed European pricing unilaterally, and demanded payment in convertible currencies. Demand plummeted. Exports to the three countries fell by roughly 50 percent from 1991 to 1992, and by a similar margin the following year.

There was similar variation in Eastern Europe, but Gazprom efforts to acquire local assets reflected a greater interest in marketing than was the case in the former republics, where markets tended to be smaller. Generally, the Russian firm succeeded, acquiring downstream assets of three types: pipeline construction and operation (e.g., its joint-venture EuroPolGaz in Poland); transmission and marketing firms (e.g., the Wingas

[156] Margareta Mercedes Balmaceda, Energy Dependency, Politics and Corruption in the Former Soviet Union: Russia's Power, Oligarchs' Profits and Ukraine's Missing Energy Policy, 1995-2006. London and New York: Routledge, 2008, p.8. Balmaceda also discusses more recent Gazprom muscle-flexing in Moldova – in 2006, Gazprom capitalized on the shortages created by the first Ukraine crisis to negotiate lower prices in exchange for an increase to 64 percent in its MoldovGaz ownership. Gazprom then turned around and hiked the prices anyway, from $110/tcm in 2006 to $170/tcm in 2007.

joint-venture in Germany); and trading houses that would operate outside the traditional vehicle of long-term contracts (e.g., the Slovakian firm, Slovrusgaz, and Panrusgas in Hungary). It did not all go smoothly – Gazprom encountered resistance in Eastern Europe that has been attributed to these countries' "assertion of economic independence, national sovereignty, and a demonstrative break with the Communist era." Russian use of gas as a political lever cannot have been far from Eastern European minds, either. The dynamics shaped up in a way that seemed to provide Russia with easy leverage; gas dependence, coupled with the inability to pay, led inexorably to debt that made concessions the simplest way out. If the potential for corruption and opportunism are factored in, the result was a series of dynamics that complemented any desire Russia might have had to maximize its regional influence, and a general pattern of leverage on price or infrastructure acquisition emerged, with the former satellite states remaining gas-reliant on Russia. None of these countries successfully diversified, with one exception: the Czech Republic, where Transgas signed an agreement with Norway's GFU to supply gas from the North Sea. Stern attributes this decision to the Czechs' pending application to NATO, a genuine desire to diversify into non-Russian sources of supply, and an ill-advised "political threat made by the Russian ambassador to Prague."[157]

4.1.2 Ukraine: A Special Case

With the Russian economy struggling, and with European sales the most promising means of generating income, the paramount importance of the other transit state – Ukraine – is obvious. Prior to completion of the Yamal pipeline in 1999, all of the four trunklines to Central Europe (the Northern Lights, Urengoy Centre, Bratstvo and

[157] Stern, The Future of Gazprom, p.115-117.

Soyuz lines) flowed through Ukraine, accounting for between 90 and 95 percent of Russian exports to the continent.[158] Ukraine was also Russia's largest buyer by volume, with 1993 deliveries totalling 54.9 bcm, more than double the volume delivered to Germany, the second-largest buyer.[159] Unfortunately, the gas relationship with Ukraine was economically and politically troubled from the start. Pirani describes the post-1991 conditions in Ukraine as "one of the greatest ever peacetime economic slumps," citing a 68 percent drop in GDP between 1991 and 1997, with commensurate reductions in industrial output and capital investment of 52 and 74 percent, all of it made more burdensome by the country's dependence on Russia for gas.[160] Under these conditions, and with both countries' need to keep the gas flowing, Ukraine quickly amassed enormous debts, estimated at $4.264 billion by 1997, figures that were only prevented from being higher by the reduced demand resulting from the wretched state of the economy.[161]

A second contextualizing factor was the flux in the relationship between the government, state gas actors, and domestic firms as Ukraine struggled with the growing pains of independence. Pirani's comments on the subject are worth quoting at length:

> Of the members of the Soviet bureaucratic class, some stayed in position, wielding power through ministries, industrial authorities and local government institutions; others became businessmen, starting their empires with assets picked up in cut-price privatisation sales.

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[158] A fourth line – through Moldova – catered mainly to the southerly markets of Bulgaria and Romania, terminating in Turkey.

[159] IEA (1995:175). Prices, of course, differed greatly: the average 1993 sale price of gas to European buyers was USD 88.3 per thousand cubic metre (tcm), nearly double the USD 46/tcm negotiated with Ukrainian buyers in March of that year. See IEA (2002: 127). Balmaceda adds an interesting wrinkle to this differential, suggesting that Russian exise taxes on gas sold to Ukraine raised it to European levels (1998: 260).

[160] Ibid, p.4.

[161] Debt figures include what Ukraine owed to Turkmenistan, and are drawn from Gregory V. Krasnov and Joseph C. Brada, "Implicit subsidies in Russian-Ukrainian energy trade", Europe-Asia Studies, Vol.49, No. 5, 1997, p.828; See also Pirani (2007: 19).

In the short term, the frictions between these groups were evident in the mixed success of the privatization programme, which brought those who sought to retain control of industry through the state into conflict with those who sought advantage from the post-Soviet property relations … [A]gainst this chaotic background, effort was devoted to creating new institutions and setting precedents of statehood … To describe the government's survival measures as coherent policy would be an exaggeration. Holding the new state together without significant bloodshed – which some observers doubted could be done – was itself some kind of achievement.[162]

There was therefore a chaotic aspect to the Ukrainian state, and to gas relationships in the country; as Balmaceda put it, the Ukrainian gas market was "controlled by 'clans' with various degrees of closeness to different parts of the central state."[163] Things worsened in 1996 when the state granted regional monopolies to eight private firms, licensing them to arrange barter deals with local factories. This gave rise to the 'gazotreidery,' entrepreneurs who emerged to broker these agreements, described by Balmaceda as "energetic middlemen," and less kindly by Pirani as "parasitic rent-seekers."[164]

Against these overlapping backdrops – economic strife, political uncertainty, and muddled gas relationships – disputes arose on three levels: the price of Russian gas; transit fees for trans-Ukrainian deliveries to Europe; and the enormous debts Ukraine incurred, particularly in 1992 and 1993.[165] Given the dependence of both countries on the gas flows through Ukraine, there was certainly incentive to negotiate. Russia preferred bilateralism to the sort of regime-based approach that was being encouraged in Europe via the Energy Charter Treaty; it was also opposed to 'unbundling' the transmission network and to open bargaining between buyers and sellers. In the negotiations that

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[162] Ibid, p.5.
[163] (1998: 269)
[164] Balmaceda identifies the eventual demise of the gazotreidery, as the state became increasingly aware of the potential of the sorts of barter deals they were brokering to "bring about unequal exchange" and to "'leave huge financial and material resources in the hands of the shadow sector of the economy' as barter deals are more difficult to tax and scrutinze." Ibid, 271-272. Pirani (2007: 106).
[165] Roger Manser, "Gas Fires Russian-Ukraine Dispute," Nitrogen, No.202 (March-April 1993).

followed, Gazprom did achieve some success with price, but Ukraine had its own successes with transit fees, arguably its main bargaining chip.[166]

Ukraine's second bargaining chip, perversely, was its debt. In a variation on the 'owe the bank a million dollars and you control the bank' adage, Gazprom found itself in the ironic dilemma, highlighted by Larsson, of having political and economic *leverage* over Ukraine on one hand, and having to face the *dependence* it imposed on the other.[167] There was no question that the money was owed, but Gazprom's options were curtailed by the third bargaining chip – absolute dependence on Ukrainian cooperation for gas transit to Europe – and the obvious conundrum that cutting off gas for consumption within Ukraine would prevent the debt from being repaid. Such limitation of the coercive potential implied by Russian control of the taps would not have existed had the same trunklines not been carrying gas to Russia's most important customers.[168]

In Ukraine, as in Eastern Europe, the idea of standing firm against Russian 'coercion' had appeal, but the Russian pipelines provided a difficult mix of means and impediments to this end. Russia's need for Ukrainian cooperation (even if viewed simply as non-interference with gas flows) could not help but provide Kiev with leverage, but the application of that leverage was a delicate and risky undertaking. Gazprom, knowing that Ukraine's ability to repay debt would be greater if it had gas to sell domestically, still

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[166] Ibid. In February, 1993, Ukraine agreed to pay USD 25-30/tcm. Within a month, Gazprom raised prices again, citing Belarus' acceptance of a three-fold increase, and demanding USD 85/tcm from Ukraine. In mid-March, the parties settled on USD 46/tcm. Transit fees moved in tandem, from roughly 30 U.S. cents/tcm per 100km to USD 2.2-3/tcm per 100km, eventually settling on the original 30-cent fee, with a guarantee that Russia would provide gas to Ukraine's fertilizer industry, a major concern at the time.

[167] Robert L. Larsson, "Nord Stream, Sweden and Baltic Sea Security," Report to the Swedish Defence Research Agency (FOI-R—2251—SE), March, 2007, pp.50, 77-82. Italics added.

[168] Victor and Victor argue that the importance of Ukraine's transit function was not the end of the story – a crucial additional factor was the country's gas storage function, which acted as a 'float' that enabled Gazprom to maintain supply continuity amid persistent technical complications due to the environmental and infrastructural pathologies of working in the Urengoy and Yamburg fields. (2006: 164).

"suspended supplies" in 1993, 1994 and 1995, though never for long.[169] In addition to self-infliction of injury that such behaviour entailed, it provided Ukraine with incentive to siphon gas from pipelines that had not been cut off, behaviour that Ukraine admitted to in 1993 and 1994, and which it is still occasionally accused of today.[170]

Bilateral negotiation and restraint with the taps enabled Russia to keep the gas flowing, but untenable debt remained, leading Moscow to float the idea of debt-for-equity swaps for Ukrainian assets.[171] The effort was only partially successful. Russian actors did not acquire control of the main transmission lines, but did gain ground in distribution, refining and storage through new joint-ventures and independent firms (e.g., Itera, Haztransit).[172] But the effort fed directly into the troublesome internal political dynamics cited above. Added onto the nationalist impulse that was already very evident, the issue of privatization – particularly if the owners were to be Russian, and particularly if the assets could be considered remotely 'strategic' – was even more explosive. Cooley was referring to military assets when he coined the term "imperial wreckage," but this apt

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[169] Pirani (2007: 19). Victor and Victor cite an additional incident in 1992, but the supply interruption was attributed to cold weather and a shortfall in deliveries of Turkmeni gas (2006: 146).

[170] Balmaceda (1997:262), Pirani (2007: 19). Details on the three cut-offs from Simon Pirani, Ukraine's Gas Sector. Oxford: Oxford Institute for Energy Studies, June 2007, pp.19 and 73. This problem continued beyond the 1990s; between 1999 and 2001, "high ranking officials of Naftohaz Ukrayina, the Ukrainian gas monopoly, were diverting large quantities of gas from the main pipeline and selling this gas to companies in Poland, Romania and Hungary at below-market prices, pocketing the profits. This practice did not end and Rem Vyakherev, then the head of Gazprom, complained of continued theft." Roman Kupchinsky, "Beyond the Spook Spat: An Expose, and Prophecy, of Russia's Gas Policy," The National Interest [online], 10 October, 2006. Accessed 10 January, 2007 from: http://www.nationalinterest.org/Article.aspx?id=12486.

[171] Cooley cites three drivers of Russia's effort to regain energy infrastructure: the original, massive investment; high asset specificity, and the importance of the trade to the Russian state and domestic interest groups. These factors, he argued, rendered "particularly acute" the "residual assets problem" that the Soviet demise created. See Alexander Cooley, "Imperial Wreckage: Property Rights, Sovereignty, and Security in the Post-Soviet Space," International Security, Vol 25, No. 3 (Winter 2000-2001), p.100.

[172] Balmaceda describes these dynamics in detail. Gazprom listed 15 "profitable and technically well-equipped non-ferrous metallurgical and chemical enterprises" to the Ukrainian State Oil and Gas Industry Committee in 1995, and proposed to obtain 30-35 percent stakes in these firms. Another brief but detailed review of these incidents is provided in Jonathan Stern, The Russian Natural Gas 'Bubble': Consequences for European Markets. London: Royal Institute for International Affairs, 1995, pp. 60-61.

characterization of scattered Soviet infrastructure is easily applied to gas infrastructure (i.e., pipelines, storage facilities, and producing firms) as well:

> … a significant hunk of the former Soviet … apparatus and its accompanying installations were suddenly located outside the Russian Federation within the boundaries of the former republics. Institutionally, the domestic Soviet factions that had previously controlled unionwide ministries … lacked formal jurisdiction over these displaced asssets, but were now major interest groups within the nascent Russian state.[173]

An additional piece to the Russia-Ukraine gas puzzle was Turkmenistan, a high-order gas producer in its own right. Russian access to Turkmeni supplies had several effects in the early 1990s – it augmented Russian production to aid the country in meeting its domestic consumption needs; it enabled Gazprom to meet its delivery commitments in Europe; and it freed more Russian gas up for export to more lucrative European markets. Prior to 1994, Gazprom had alloted a "quota" of Turkmeni production for European export, "for which it received hard currency from Gazprom." But this quota, which had averaged 12.6 bcm from 1990 to 1993, was reduced to "negligible levels" afterward. [174] And as the decade progressed, the country became an important tool in Russian management of its relationship with Ukraine. Kiev, understandably keen to diversify its sources of supply by accessing Turkmeni gas, had to contend with the fact that Turkmeni gas could only reach it through pipelines that crossed Russian territory and were owned by Gazprom. And the Russian firm did not hesitate to use its influence; Balmaceda cites a 2000 incident in which the Russian firm refused to carry Turkmeni gas

[173] 2000: 113. The Black Sea Fleet/Sevastopol issue is a prime example. Russia's longstanding presence there led the Duma, in 1994, to declare Sevastapol a "Russian city." The Ukrainian debt provided an opening for Russia to regain some of these assets in a way that Kiev could accept. But it took time for this opportunity to be realized. The highly-charged, post-1991 situation threatened to escalate as both countries claimed ownership of the fleet before Yeltsin and Ukrainian President Leonid Kravchuk agreed, in April of 1992, to appoint a commission to develop solutions. The situation stabilized but, some nineteen years and several Ukrainian presidents later, remains unresolved.

[174] IEA (1995: 174-175).

contracted by Ukraine, and summarizes comprehensively the insertion into the process of a series of private firms – and individual Russian and Ukrainian actors – that were handed exclusive access to Turkmeni gas on one hand and Ukrainian markets on the other. This approach cost Gazprom where rents were concerned, but it also had the advantage of off-loading the problems of payment collection onto private actors. Another interpretation, explored most notably in Balmaceda's 2008 book on the subject, and also in a 2006 report by Global Witness, is that such private-actor involvement represented the encroachment of corruption and cronyism among actors from all three states.[175]

In sum, the natural gas environment in the 1990s was one of uncertainty, rapid change and unstable relationships – anathema to an industry that, for all the reasons discussed in Chapter 2, relies absolutely on predictability, stability and trust. Russia's challenge was to sort through the 'imperial wreckage' and the undefined political and commercial relationships to realize the gains from natural gas, one of its very few viable economic lifelines, while at the same time establishing a reasonable commercial foundation in its former orbit. In this respect, it is not surprising that gas deliveries within the Former Soviet Union (FSU) in the early part of the decade were curtailed dramatically. What is surprising, as evinced by Table 4.1, below, is the stability Gazprom was able to maintain with European deliveries.

[175] Margareta Mercedes Balmaceda, Energy Dependency, Politics and Corruption in the Former Soviet Union: Russia's Power, Oligarchs' Profits and Ukraine's Missing Energy Policy, 1995-2006. London and New York: Routledge, 2008. See in particular pages 97-116; Global Witness, "It's a Gas: Funny Business in the Turkmen-Ukraine Gas Trade." Washington: Global Witness Publishing, Inc., 2006. Available at: http://www.globalwitness.org/media_library_detail.php/479/en/its_a_gas._funny_business_in_the_turkmen_ukraine_g. Accessed 26 September, 2010.

4.2 ANALYSIS

Russia's difficulties in its Near and Far abroad, and the instability they in introduced into the Euro-Russian NGR, are rooted in the economic and political turmoil that followed the dissolution of the Union. As discussed above, Soviet gas deliveries within the Union and throughout Eastern Europe were never intended to make money; arrangements were characterized by extremely low domestic prices, highly subsidized exports, barter trade, and very loose calculations of volume – the phrase 'independently of costs and efficiency criteria' will be recalled here. Naturally, these arrangements existed for a reason: natural gas deliveries had been but one of many devices linking the Soviet periphery and core; gas helped to cement these linkages by delivering heat, industrial fuel and chemical feedstock to populations and governments in the Soviet orbit, providing an essential public good, and stoking the wider machine of East Bloc industry. All of this was fine with Moscow, which was rewarded in other ways – the stability served by industrial, political and social satisfaction with natural gas arrangements allowed the Soviets to define the 'profit' they gained in non-pecuniary terms.

All of this changed between 1989 and early 1991. With its former clients now independent, Russia's incentive to subsidize gas exports – crystal-clear for decades – was thrown into question; where former clients turned toward NATO and the EU, it was even more questionable. At the same time, the country's economy was in chaos, and Russia was forced by circumstance to switch on the fly from engrained Socialist mechanisms of exchange to something resembling a market economy. The adjustment was not smooth: some argue that the Russian economy declined from roughly one-half of U.S. GDP in the

mid-80s to about one-tenth by 1992; inflation saw prices increase some twenty-one times over in 1992 alone, and capital flight on the order of $1B per month has been posited.[176]

Amid this desperation, gas offered a lifeline on two counts. First, because it had been kept in state hands, it was a relatively simple means to generate hard cash for the government. Gazprom had long-term contracts in place with reliable partners; the infrastructure, though worn, was functional; Russian gas reserves were still unparalleled; and foreign energy firms were willing to invest in the country. Second, it represented one of the few levers available to the Kremlin in its dealings with its new neighbours. Some of this uncertainty derived from the obvious need for Gazprom to change the way it did business, which entailed a re-orientation of its entire export posture to profit-based commercial arrangements. Many of the suddenly-necessary adjustments dealt with things that were taken for granted elsewhere, e.g., metering equipment or billing infrastructure.

But there was higher-level uncertainty about whether – not to mention where, to what degree, and for what reasons – Russia and Gazprom should leverage the 'unexploited advantage' that had, for decades, lain dormant in its regional subsidizations.[177] Again, there was considerable variation here. In the Baltics, Gazprom simply hiked the prices.[178] The pattern elsewhere was to try to obtain ownership – or at least control through long-term leasing – of infrastructure. In Moldova and Belarus, both key export routes, they succeeded. They also enjoyed success in Eastern Europe, where larger markets provided greater incentive to own a piece of the marketing and distribution

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[176] Statistics drawn from Goldman (2008: 56-57). In the same volume, Goldman neatly conveys the magnitude of the difficulty in Russia's conversion to a market-based economy, with particular attention to the petroleum industry, pp. 57-59.

[177] The term is borrowed from R. Harrison Wagner – see "Economic Interdependence, Bargaining Power, and Political Influence," International Organization, Vol. 42, No.3, 1988, pp. 461-483.

[178] There were a few attempts to gain control of infrastructure in the oil sector, most infamously the Mazeikiai refinery in Lithuania, where the Russian firm was out-manouevered by PKN Orlen of Poland.

sub-sectors. In each of these places, the 'carrot' was the continuation of gas prices that, while not the cut-rate bargain of Soviet times, were well below European levels. And then there was Ukraine, where importance as a transit state, a storage site, and a large domestic market prompted Gazprom to seek both infrastructure and market assets.

The significant trend here is the shift in the incentive structure facing Russia, from one of relative, sphere-of-influence homogeneity to one of enormous variegation. Where the new neighbours fell in the post-1991 incentive structure seemed to depend on the interplay of the factors cited above: the buyer's status as an end-use or transit state; the presence of infrastructure; the size of the market; the availability of outside options; debt; and the orientation of the buyer as politically favourable or unfavourable.[179] In the Baltics, for example, the absence of substantial markets, combined with these countries' inability to access outside gas supply options and their existence as end-use states gave Russia no real incentive to bargain; the scenario encouraged Moscow unilaterally to hike prices irrespective of buyer concerns or retaliation. In Belarus or Moldova, the dynamics were different: they too were small markets with no real outside option or counter-leverage, but they were transit states – this provided strong incentive for Moscow to leverage the debts these countries accumulated to acquire pipeline control.

Eastern Europe presented similar infrastructural incentives to Russia, but their value as larger consumers encouraged Russia to seek a share of the distribution and marketing sectors; because these countries did not accumulate the same kinds of debt as the former Republics had, Russia turned to the carrot instead of the stick, offering lower-

[179] An alternate and compelling ethnicity-based argument is made by Corina Linden in her 2000 doctoral dissertation; Linden argues that the deciding factor as to whether or not buyer states would orient themselves toward Moscow or Europe lay in the ethnic composition of influential groups within their borders. See "Power and uneven globalization: Coalitions and energy trade dependence in the newly independent states of Europe," University of Washington, 2000.

price gas in exchange for downstream equity. Here, too, a key constraint on the Eastern Europeans was the absence of an outside option. The one country that did *did* have one – the Czech Republic – refused Moscow's offer of low-price gas in order to avoid making concessions. The Czechs were able to do this because it was commercially and geographically viable to build an eastward-flowing pipeline for North Sea gas from Germany. And ironically, by the late 2000s, the Czechs were paying less for gas than their eastern neighbours.

These changes in the former East Bloc were enormous. But, crucially, the instability created elsewhere was minimal – the political rancour and the manoevering were angst-generating but, from a European point of view, hardly incapacitating. As

Table 4.1 Russian Natural Gas Exports, 1990-1994 (bcm)[180]

	1990	1991	1992	1993	1994
Exports within FSU:					
Ukraine	60.8	60.7	77.6	54.9	55.0
Belarus	14.1	14.3	17.7	16.4	14.0
Lithuania	6.1	6.0	3.2	1.8	1.6
Latvia	3.4	3.2	1.6	1.0	1.3
Estonia	1.7	1.9	0.9	0.4	0.5
TOTAL FSU	**153.2**	**155.8**	**106.1**	**78.8**	**76.1**
Exports outside FSU:					
Eastern Europe	33.0	27.0	29.0	36.2	35.0
Germany	26.6	24.4	22.9	25.8	-
Italy	14.3	14.5	14.1	13.8	-
France	10.6	11.4	12.1	11.6	-
TOTAL NON-FSU[181]	**96.0**	**91.0**	**89.0**	**100.9**	**105.0**

[180] Extracted from IEA (1995: 175).
[181] Export data omitted for FSU deliveries to Moldova and Kazakhstan, and for non-FSU deliveries to Turkey, Finland, Austria and Switzerland.

evinced by Table 4.1, intra-FSU deliveries were dramatically curtailed, but European exports, including those to Eastern Europe, dipped only slightly in 1991-92, regaining their trajectory in 1993 and 1994.

Despite these changes, therefore, including the 50-plus incidents of energy manipulation (threats, cut-offs, etc.) cited by Larssen, there were few practical consequences for downstream Europe. Russian production did decline between 1991 and 1999, from 581.9 to 535.7 bcm, but Gazprom continued to feed Europe by importing gas from Turkmenistan and re-shipping it through Ukraine.[182] These volumes, combined with increases in Norwegian production, and steady deliveries from the Netherlands, fed a growth in continental consumption over the same period from 380.7 bcm to 472.6 bcm.[183] It was not until the 2006 that the newly-expanded EU experienced shortages from a deliberate cut-off, and not until 2009 that a cut-off proved seriously disruptive. On the less tangible dimension of actor *confidence* in the regime, however, instability carried more weight, and it is here that the roots of the political anxiety that began to fester in Europe after 2000 are discernible.

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[182] These BP production figures omit gas volumes produced by Russian oil companies, which raise the totals to 643 bcm in 1991 and 590.8 bcm in 1999. IEA (1995: 168) and (2002: 112).

[183] European consumption figures net of consumption in the Russian Federation, Ukraine, Turkmenistan, Uzbekistan and the figures listed as 'Other Europe and Eurasia.' BP Statistical Review of World Energy: June 2009 – Historical Data. Accessed 16 January 2010 from: http://www.bp.com/productlanding.do?categoryId=6929&contentId=7044622. See also Victor and Victor (2006: 129, 152).

CHAPTER 5 1991-1999 – CHANGE ON THE CONTINENT

The element of change in the post-Soviet aftermath had parallels in downstream Europe. Two trends in the 1990s – the initiation of European gas competition and the entry of the EU into the regime – asked serious questions of the German hegemon, which found itself on shifting sands. Liberalization and an emergent Wintershall-Gazprom joint-venture represented 'compromising influences' on the dominance it had consolidated in phase one. In this chapter, I will review the changes to the German (and European) gas environment that the creation of the Gazprom-Wintershall joint venture Wingas represented, and two aspects of the EU foray into gas matters: its effort to obtain Russian buy-in to the Energy Charter Treaty, and its push for a liberalized, internal market in Europe. The principal argument in this chapter is that while all of these changes had potential to alter the regime in fundamental ways, they did not do so. Germany's Ruhrgas retained its incumbent position – and its special relationship with Gazprom – despite the creation of a strong competitor within German borders; Russia resisted the ECT without compromising its key relationships in Europe; and the major continental actors worked through their various arenas of state-firm consensus to dilute and delay the impact of the EU liberalization effort. Regime stability was maintained, as was German hegemony.

5.1 THE ADVENT OF COMPETITION

Just prior to the fall of the Berlin Wall, Ruhrgas found itself in a simmering price dispute with the German chemical giant, BASF, one of its largest customers, and owner of Wintershall, a regional gas distributer. Frustrated by Ruhrgas' pricing, BASF took an extraordinary decision: to build its own pipeline network. Its timing was ideal. While

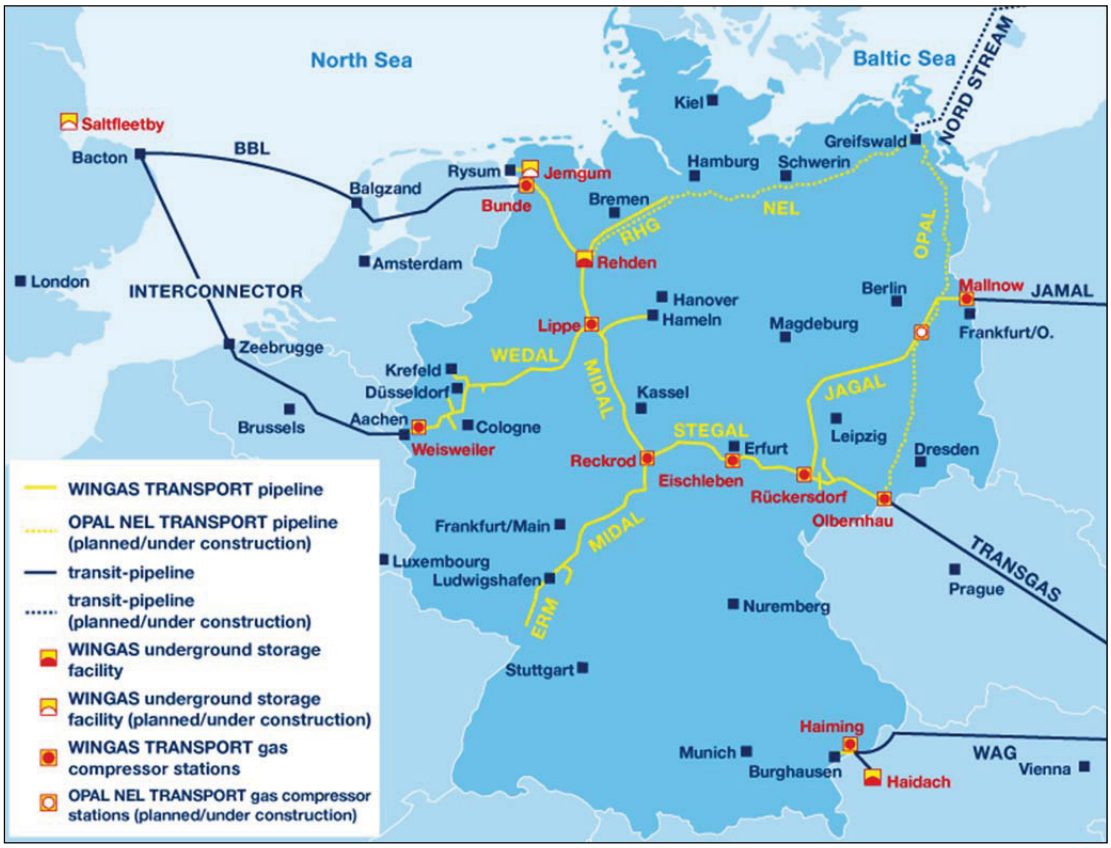
Ruhrgas was focused on the east, where it sought and acquired a 35 percent stake in the former East German transmission firm VNG, Wintershall was negotiating with the Soviets. In September of 1990 it signed a "coup" of a deal to acquire gas directly from Gazprom, and to establish an unprecedented downstream joint-venture, Wingas.[184] Gazprom had had its own issues with Ruhrgas, having attempted to secure 25.1 percent of VNG, "thus lowering its dependence on Ruhrgas," and having been out-manoevered, coming away with nothing. It had also attempted to negotiate the same sort of downstream marketing with Ruhrgas that it eventually signed with Wintershall, but had been "rebuffed." But BASF/Wintershall was enthusiastic, demonstrating its commitment by initiating work on a new transmission line, the STEGAL, from Olbernhau on the Czech border, and completing it by 1992.[185]

A year later, the north-south MIDAL line was added, a 702-km, north-south trunkline connecting Emden on the North Sea to Ludwigshafen in southwest Germany, home to BASF headquarters. Wingas drew its Russian supply through STEGAL, which connected to the Russian/Czech 'Transgas' line at Olbernhau, but created an alternative with the massive, 4,196-km Yamal line, linking the Urengoy fields of northwest Siberia to Germany. Cutting across Belarus and Poland, Yamal is the only major Russian gas line

[184] A second significant aspect of BASF/Wintershall timing revolved around the arrangements in Russia at the time – Victor and Victor describe a brief period after 1990 where Gazprom lost control over export contracts to the Russian government, which took over Soyuzgazexport. It was in this narrow window that the BASF negotiation with Gazprom occurred.

[185] The STEGAL line also allows North Sea gas to flow eastward to Slovakia and the Czech Republic. The 600-mile north-south Trans-European Pipeline (TENP) running from Germany's Dutch border to Italy, a joint-venture of Ruhrgas and Italy's Sname Rete, is also reversible, allowing Algerian or Libyan gas to flow northward.

Figure 5.1 Wingas Pipeline Infrastructure (Source: Wingas[186])



to bypass Ukraine. Construction on the German connector, the JAGAL line, began in 1994, linking to Yamal at the Polish border.[187] Yamal, completed when the Belarus-Poland sections came onstream in 1999, today delivers annual volumes of 33 bcm.[188]

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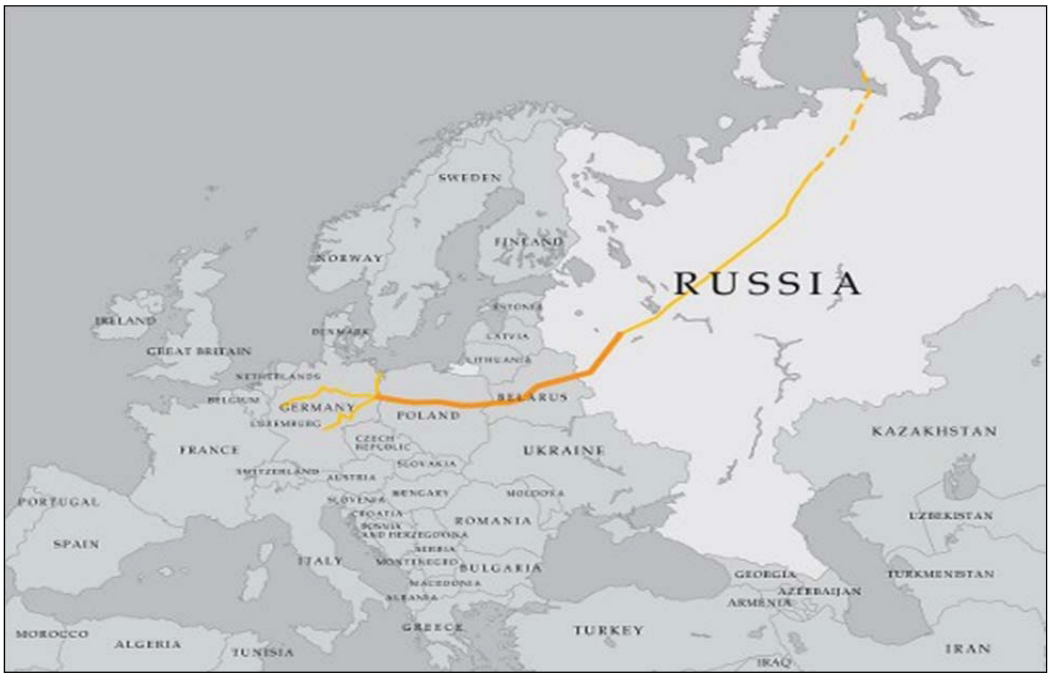
[186] Accessed 11 August, 2009, from http://www.wingas.de/infrastruktur.html?&L=1.

[187] This section was built on the strength of a USD 930M loan from the "international banking community," demonstrating the increased "prestige" achieved by Gazprom in foreign eyes, according to one observer. See Balmaceda, Margareta Mercedes, "Gas, Oil and the Linkages Between Domestic and Foreign Policies: the Case of Ukraine," Europe-Asia Studies, Vol. 50, Iss. 2, pp.257-287.

[188] Accessed 17 December, 2009, from http://www.gazprom.com/production/projects/pipelines/yamal_evropa/. A fourth Wingas line, the WEDAL, was completed in 1998, connecting the MIDAL line to the Belgian border at Aachen. The WEDAL was built to transport slightly less than 1 bcm/year of British gas via the Interconnector pipeline to the Dutch coast at Zeebrugge; Wingas signed an agreement in 1996 with Belgium's Distrigaz to transport these supplies, which it purchased from British Gas and Conoco. Wingas "Chronicle," accessed 17 December, 2009 from http://www.wingas.de/chronik.html?&L=1. See also "Germany's Wingas GmbH Clinched a 20-year Ttransit Agreement with Distrigaz SA, Belgium," Oil & Gas Journal, Vol.94, Iss.49 (December 2, 1996), p.38.

Figure 5.2 The Yamal Pipeline (Source: Gazprom)[189]



The Wintershall-Gazprom agreement also saw the creation of a joint venture trading company, *Wintershall Erdgas Handelshaus* (WIEH), to distribute and market Russian gas in eastern Germany and in Eastern Europe, marking the first concrete involvement by a Russian gas entity in the European downstream.[190]

These were massive developments. With the stroke of a pen (and several billion deutschmarks), BASF and Wintershall had redefined the European gas landscape, creating the continent's first real gas-to-gas competition and breaking the Ruhrgas supply monopoly in Germany.[191] And there was additional cleverness (or blind luck) to BASF's timing – the German government had been working in the late 1980s to undo the demarcation agreements that carved the country into firm-specific territories, and the

[189] Ibid.
[190] WIEH: Wintershall Erdgas Handelshaus.
[191] Quotations from Stern (1998: 139-140) and Elena Ivanova, "Gas Industry 1991-2000," Kommersant, 2 March, 2004 [online], accessed 26 November, 2009 from http://www.kommersant.com/p295882/r_33/Gas_Industry_1991-2000/.

concession agreements that saw municipalities grant territorial exclusivity to certain firms for distribution, ensuring "that no consumer within this specified area could purchase gas or power from any alternative supplier."[192] Both types of agreements had been effect since the 1930s, but through the 1989 Law Against Restrictions on Competition, Bonn directed them to be terminated by January, 1995. At the same time, the government was working on a draft energy law that eventually became the new Energy Industry Act (*Energiewirtschaftsgesetz* or EnWG), which came into effect on 29 April, 1998, two months before the EU's first attempt at gas regulation, Directive 98/30/EC. This gave Wingas opportunities for purchasing and distribution it would not otherwise have had.

The coincident development of these two instruments, and of deregulation and liberalization more broadly, had one other important effect. It created a grey area between national and EU gas legislation that enabled (or led) the German government to cite EC Treaty compatibility in its dealings with domestic gas firms, undoubtedly altering the flavour of these discussions.[193] When, for example, the German federal cartel office (FCO or *Bundeskartellamt*) blocked the 1994 effort by Ruhrgas and Thyssengas to renew their longstanding demarcation agreement in the state of Northrhine-Westfalia (recalling that all such agreements were to be terminated by the beginning of 1995), it cited EU

[192] Stern (1998:143).

[193] Comments on the "intense lobbying campaign, spearheaded by the Dutch and German giants, Gasunie and Ruhrgas," their 'vehement opposition of the early EU gas directive drafts, and their success in delaying its eventual completion, can be found in Paul K. Lyons, "EU Energy Policies Towards the 21st Century," A Business Intellience Report, June 1998. Surrey UK: EC Inform. Accessed 14 December 2009 from http://www.pikle.co.uk/eci/EnergyPolicies.Ch3B.pdf. Similarly, Stern (1998: xvii) writes that "so successfully did Continental European gas industries enlist the support of their governments, that nearly a decade passed before an EU Directive dealing with the opening up of gas industries to competition and liberalized access to networks was agreed."

Treaty Article 85(1), which dealt with barriers to competition.[194] Ruhrgas and Thyssengas both complained to the Berlin Court of Appeals that the cartel office could not appropriately cite European Community Law, and appealed the ruling, but the court referred the matter to the European Court of Justice, with "a whole series of complex questions relating to market liberalisation and the interface between national and EU legislation."[195] It was not the only case of this sort during this period.[196]

These developments jarred the status quo that had prevailed since the advent of the trade some 30 years earlier – as *The Economist* put it, "the old rules of Europe's gas club are being challenged – and occasionally broken."[197] Again, there was an element of synchronicity to all of this, and we should wonder whether any of the changes would have been possible without the coincident timing of the 1998 Gas Directive and what appeared to be an unprecedented, pervasive interest in commercial openness in Europe. The latter trend had been gathering momentum for some time, but competition legislation had generally spared the gas industry. Regardless, the events were something of a nudge down a slippery slope for the transmission companies. Their ability to resist was still

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[194] Wingas was not free of similar scrutiny by the FCO, having had demarcation agreements with VNG and, through WIEH, with EVG overturned in March of 1995. See David Knott, "Germany to Open Gas Distribution, Supply Markets to Competition," Oil & Gas Journal, Vol. 95, Iss. 53 (December, 1996), p. 24.

[195] Lyons (1998: 46-47) and Stern (1998: 144-145).

[196] Another high-profile examples involved the U.S. producer Marathon Oil, which brought to the Commission a series of complaints against Ruhrgas, Thyssengas and BEB, DONG (Denmark), Gasunie and Gaz de France, who had "refused access to ship Norwegian gas through the continental pipelines owned by the above-mentioned companies several times during the nineties."[196] The Commission eventually ruled in Marathon's favour against Gasunie, DONG and Thyssengas; Gaz de France and Ruhrgas settled with Marathon out of court and committed to better access under the supervision of an Competition Office trustee. See Europa Press Release, "Commission settles Marathon case with Gaz de France and Ruhrgas," 30 April 2004. Accessed 15 December, 2009 from: http://europa.eu/rapid/pressReleasesAction.do?reference=IP/04/573&format=HTML&aged=0&language=EN&guiLanguage=en. Other cases are summarized in a report by the OECD Directorate For Financial And Enterprise Affairs Competition Committee, "Roundtable On Ensuring Access To Key Capacity For New Entrants," DAF/COMP/WP2/WD(2006)11, 31 January, 2006. Accessed 15 December, 2009 from http://ec.europa.eu/competition/international/multilateral/2006_feb_access_key_capacity_new_entrants.pdf

[197] Economist, "Countdown to Explosion," Vol. 340, Iss. 7984, 21 September, 1996, p.68.

pronounced, and their traditional arguments still carried considerable weight within each national management consensus but, by the end of the 1990s, change was underway, and appeared irreversible.[198]

5.2 THE EU ENTERS THE REGIME

5.2.1 The Energy Charter Treaty

In June of 1990, Netherlands Prime Minister Ruud Lubbers put forward a plan to facilitate energy cooperation between Europe and the Soviet Union. Adopted as the European Energy Charter by 49 states and the EU in December of 1991, just as the Union was dissolving, the document sought to balance Western desire to secure access to the riches of the Russian upstream and investment protection for firms against Russia's need for foreign investment and its desire for resource sovereignty. What emerged had a definite western flavour; Lubbers' assertion that the Charter addressed "the collapse of communism with sensitivity and respect for Russia's pride" notwithstanding, the basic intent of the document was "to catalyze economic growth by means of measures to liberalize investment and trade in energy."[199] On 17 December, 1994, the Charter, which had existed as an expression of "political intent to promote East-West energy cooperation," became the Energy Charter Treaty, a legally binding instrument that came

[198] One of the argumentative mainstays of Ruhrgas' pricing policy, for example, was 'security of supply,' i.e., that it was necessary to limit the import volumes of (cheaper) Russian gas because it was dangerous to become overly dependent on any one source; this necessitated continued use of Norwegian and Dutch supply. See Economist, Ibid. Further arguments, by Ruhrgas, that the German gas industry was already competitive and not in need of regulation or change are presented in Knott (1996).

[199] Letter to the Editor, Economist, Vol. 335, Issue 7916, 27 May, 1995, pp. 8-10. The letter also drew the interest of non-European actors, including the United States and Australia, who were anxious to avoid being shut out of an opening former Soviet market by a European "closed shop." See Bryan Clark, "Transit and the Energy Charter Treaty: Rhetoric and Reality," Web Journal of Current Legal Issues, 1998 [online]. Accessed 6 December, 2009 from http://webjcli.ncl.ac.uk/1998/contents5.html.

into effect in 1998 with four areas of focus – investment protection; WTO-based non-discrimination in the trade of energy materials; dispute resolution; and energy efficiency.[200]

As of December, 2009, fifty-one states had signed the document, with Norway and Russia the two significant holdouts.[201] For the Norwegians, the problem lies in the Treaty's dispute resolution and investment provisions. The ECT differentiates between pre- and post-investment periods, creating 'softer' rules for the period preceding actual investments, as opposed to the 'harder' rules of the post-investment period, "when the risk is assumed and the 'hostage' effect arises." For Norway, this raised the possibility that ECT articles 10(2) and 10(3), which obligated parties to guarantee non-discriminatory treatment to foreign investors, would conflict with its longstanding – and constitutionally required – majority share in offshore production for Statoil. Extant arrangements would be safe because they were protected by extant contracts, but future arrangements would have been vulnerable to complaints by prospective investors that the institutional arrangements were inherently discriminatory, paving the way for a conciliation process that gave considerable decision-making power to an external adjudicator, and risking Oslo's requirement for majority control.

While Russia was more accommodating toward the ECT in the 1990s than it was afterward, those reservations that it did have have received more attention than its accedances – this is likely due to the eastward-looking orientation that had characterized

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[200] The distinction between the Charter and the Treaty is made in Andrei Konoplyanik and Thomas Wälde, "Energy Charter Treaty and its Role in International Energy," Journal of Energy and Natural Resources Law, Vol.24, No.4, 2006, p.525-526. The ECT was altered by a Trade Amendment to align it with the WTO, and complemented by the Protocol on Energy Efficiency and Related Environmental Aspects (PEERA) on the same date.

[201] Only Australia, Belarus, Iceland, Norway and the Russian Federation have not ratified it.Up-to-date information can be found at http://www.encharter.org/index.php?id=18. Accessed 6 December, 2009.

the ECT from the start, and to the absence of the mitigating, parallel institutional mechanisms of the Norwegian case. But despite its less congruent background with Europe, and despite the topsy-turviness of the Yeltsin-era 'oil grab,' western investors and policymakers read positive signals from Russia: market reforms were underway, elections were held and – officially at least – foreign investment was welcomed. It was in this atmosphere of positive engagement that Russia signed the ECT in December of 1994, despite the presence of outstanding issues surrounding the transfer of nuclear fuels and the transit rules for oil and gas.

There were two aspects to the transit problem. First, there was an imbalance in the application of transit rules between east and west; because the EU was negotiating as a bloc, transit rules would not apply to individual member states. Russia, on the other hand, by virtue of gas flows from Central Asia, was classified as a 'transit state' and hence the transit provisions would apply. Of particular concern was ECT Article 7 (1) which obliges contracting parties to:

> … take the necessary measures to facilitate the Transit of Energy Materials and Products consistent with the principle of freedom of transit and without distinction as to the origin, destination or ownership of such Energy Materials and Products or discrimination as to pricing on the basis of such distinctions, and without imposing any unreasonable delays, restrictions or charges.

This provision represented a possible opening for foreign firms operating in Russia to export gas/oil through Russian pipelines, a thought that was (and remains) anathema to Moscow, a perception no doubt enhanced by the frequent references to third-party access (TPA) in the parallel discussions about the Internal Energy Market (IEM) in Europe.

The solution to Russian transit concerns, which were shaping up as an impasse, was to negotiate a separate Transit Protocol; this seemed to satisfy Moscow and, in 1996, there was optimism as the Duma began to deliberate ratification. But the failure of actual negotiations to get underway before 2000 put Russia in an awkward position. It continued to fulfill its commitment to provisional application, so far as domestic law allowed, by filing 'exceptions' as per the terms of the Supplementary Treaty. But there was an air of limbo around the process, a situation made more uncertain by negotiations among ECT signatories of a Trade Amendment in 1998 to align the Treaty with the rules of the WTO, to which Russia was attempting to accede. In sum, the interplay of these processes – confusing overlap with EU liberalization; provisional application; the Supplementary Treaty exceptions; the Trade Amendment negotiation; the Transit Protocol; and the country's WTO aspirations – all combined to give Russia pause. There was no obvious need for the country to rush to ratify the ECT, but neither did it have any immediate incentive to withdraw.

5.2.2 Liberalization and the First Gas Directive

From its inception, the continental gas trade was neither scrutinized nor well understood by European Community. It was not until the stirrings of liberalization in the late 80s – subsumed, then as now, under the single market, internal market, or 'market integration' banners – that the Commission took serious notice.[202] In the 1990s EC/EU involvement changed, shifting toward policy development, coordination and enforcement

[202] This argument is made in greater detail by Jonathan Stern, 'The Prospects for Third Party Access in European Gas Markets,' in Mestmäcker (Ed.), 1993: 183-201.

in the development of the single market for European gas.[203] Directive 98/30/EC, the first 'gas directive' and the first significant legislation to emerge, was enacted on 22 June, 1998. It established ground rules for the internal gas market through the 'unbundling' of integrated firms, and through the principle of Third Party Access (TPA), a first for most European countries.[204] TPA, defined as "a commercial transaction in which owners of transmission assets (principally pipelines) either agree, or are obligated to, carry gas – which they do not own – for a third party" is generally presented as a route to lower prices for consumers, increased competitiveness and security of supply.[205]

Though concern among European authorities over the closed-shop nature of the continental gas trade is almost as old as the trade itself, there was little concerted movement on the issue until the European Commission formed consultative committees to develop legislation on gas transit, which eventually became Council Directive 91/296/EEC of 31 May 1991 (On The Transit Of Natural Gas Through Grids).[206] This document, in hindsight a pale but necessary precursor to the 1998 Gas Directive, sought

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[203] A second focal point dealt more with capacity development in the interest of pan-European gas security through financial support for major infrastructural projects like the Yamal pipeline and, later, the Nordstream project (2005).

[204] Directive 98/30/EC of the European Parliament and of the Council of 22 June 1998 Concerning Common Rules For The Internal Market In Natural Gas. Available at: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:1998:204:0001:0012:EN:PDF, accessed 10 August, 2009.

[205] Stern in Mestmäcker (Ed.), 1993: 183.

[206] As early as 1968, a EEC Council communiqué warned of "considerable barriers to trade in energy products within the Community," and argued that if such a "state of affairs does not alter and if a common energy market is not achieved in the near future, the degree of integration achieved in this sector may well be jeopardized." See Commission of the European Communities, "The Internal Energy Market," COM (88) 238 Final. Brussels: 2 May, 1988, p.2. It was not until 1986 that the Council adopted a series of energy objectives, expanded on in a 1988 Working Paper entitled *The Internal Energy Market* that lauds the 1968 communiqué for "outlining the first guidelines for a Community energy policy," and cites the 1986 energy objectives adopted by the Council that "explicitly" stressed the need for "greater integration, free from barriers to trade, of the internal energy market with a view to improving security of supply, reducing costs and improving economic competitiveness." It recommended the Commission draw on existing EC treaties and secondary legislation, on the provisions of the Single European Act outlined in the 1985 'White Book,' and on "new community initiatives," to determine the necessity of further action. And it likely generated vast trepidation in European boardrooms by ominously adding that "new Commission initiatives in the specific domain of energy may be justified." Ibid, p.2, 11-12.

"non-discriminatory and fair" conditions of transit, and required Member States to "take the measures necessary to ensure that the entities under their jurisdiction referred to in the Annex act without delay" to take the following steps:

- notify the Commission and the national authorities concerned of any request for transit;
- open negotiations on the conditions of the natural gas transit requested;
- inform the Commission and the national authorities concerned of the conclusion of a transit contract;
- inform the Commission and the national authorities concerned of the reasons for the failure of the negotiations to result in the conclusion of a contract within twelve months following communication of the request.[207]

The preliminary element in these requirements is fairly obvious; one gets the impression that the Commission was under no illusions about the length and difficulty of the task ahead, or about the need to navigate carefully the interface with the various cases of national management consensus. It was right to be concerned – the process became a focal point of industry resistance, with firms pressuring their governments to oppose the Commission's effort. In October of 1990, member states had rejected the draft Directive, but the Commission pressed ahead, "recirculating" the draft to consultative committees despite the "considerable resistance" of industry and governments.[208]

While TPA was not mentioned in the Directive specifically, it was clearly the aim of the document. The industry response was to resist "any move towards the introduction of third-party access with attitudes towards the European Commission proposals varying from hostility to thinly-disguised fury and contempt." Still, seven months after states had

[207] Council Directive of 31 May 1991 On The Transit Of Natural Gas Through Grids (91/296/EEC), Articles 3.1-3.3. Accessed 18 December from http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31991L0296:EN:HTML.
[208] Stern (1993: 186).

rejected the draft, the European Council passed the document.[209] There was an additional key to this achievement. Where the consultative committees did indeed have gas industry representation, they included *consumer* industries as well; as Stern describes it, these groups – e.g., the chemical industry – favoured liberalization, and came to the process unified and organized. In contrast, the gas industry entered the process in its usual sub-groups: producers, transmission companies and distributers. Since their success in preventing or stalling TPA depended on their ability to lobby effectively within the consultative committees, this lack of unification proved to be a serious weakness – the gas industry's effectiveness thus curtailed, the pro-liberalization element carried the day long enough for the Directive to pass, gaining a foot-hold in the contest that it has never relinquished.[210]

The Transit Directive is likely less noteworthy for its content than for its role in maintaining the early momentum of the liberalization process, and for legitimating the idea of third-party access – the legislation was tepid, but the liberalization genie was clearly out of the bottle. Almost immediately after the Council had passed the Transit Directive, the Commission began to consider next steps, proposing later in 1991 a draft Gas Directive similar to one it had already put forward for the electricity sector.[211] Again, firms and states resisted, with the discussions coming "to a halt" in 1992 because "almost all countries opposed the proposed directives." In what Andersen referred to as an "unprecedented move," the Council returned the drafts to the Commission "without a

[209] Ibid, 188.
[210] Ibid, 188-193.
[211] The Gas and Electricity Directives were to be drafted together but, "because the Commission regarded the obstacles and resistance among member states to the gas directive to be stronger … the decision-making process was split up," eventually creating two directives: 96/92/EC (electricity) and, two years later, 98/30/EC (gas). Claes (2002: 310-311).

comprehensive Committee discussion, with detailed political instructions for the future work" to deal with the "deadlock."[212] This push eventually proved effective, and though it took seven more years, the first Gas Directive was passed in 1998.[213]

Directive 98/30/EC has been hailed as a "milestone" in the "gradual yet radical restructuring of the gas sector," a process that stresses gas-to-gas competition to "allow a real market price for gas to emerge through the interaction of supply and demand."[214] The first notable change was stronger language on TPA – where the 1991 document had directed actors to 'notify' and 'inform' the Commission when transmission line access was requested, the first Gas Directive, unanimously approved by all member states on 22 June, 1998, imposed actual *requirements* on the industry. Transmission companies were now obliged to make their pipelines available – for a fee, naturally – for the transit of gas bought through direct purchasing deals between consumers and producers.[215] The second development was the overt use of the term 'unbundling,' which suggested that European authorities had had enough of incestuous ownership structures and labyrinthian accounting.[216]

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[212] Ibid, 309.

[213] Svein S. Andersen, "Energy Policy" in Svein S. Andersen and Kjell Eliassen, Making Policy in Europe, London: Sage, 2nd Edition, 2001, p.113. Cited in Claes (2001: 309).

[214] Armelle Lecarpentier, "The Liberalization of Gas Markets in Europe," Panorama 2006, a report for the Institut Français du Pétrole. Accessed 3 May 2008 from http://www.ifp.com/layout/set/print/content/view/full/56177.

[215] Claes (2002: 313). Since there is generally no circumventing the natural monopoly aspect of gas transmission lines, i.e., since it is not reasonable to create competition *between* pipelines, the EU idea has been to create competition *within* them – hence its emphasis on TPA.

[216] Chapter V of the Directive, entitled *Unbundling and Transparency of Accounts*, includes the following wording: "Integrated natural gas undertakings shall, in their internal accounting, keep separate accouts for their natural gas transmission, distribution and storage activities, and, where appropritate, consolidated accounts for non-gas activities, as they would be required to do if the activities in question were carried out by separate undertakings, with a view to avoiding discrimination, cross-subsidisation and distortion of competition. These internal accounts shall include a balance sheet and a profit and loss account for each activity." 98/30/EC, Article 13(3).

Despite this unquestionably tougher approach, the advance was still incremental. Of particular interest is the Directive's provision of a choice for Member States to select 'regulated' or 'negotiated' TPA, which allowed them to choose between (a) imposing rules on their transmission companies and (b) providing parameters within which firms could negotiate themselves, a clear concession to the upward pressure that firms were still exerting.[217] By 2000, member states were supposed to have opened 20 percent of their gas markets to competition. Most states complied with or exceeded this requirement, with France and Germany holding out.

The Gas Directive represents a clear progression from the thinking expressed in the Transit Directive, thinking underlined by the "assumption in monopoly theory that energy networks are natural monopolies and are as such particularly prone to inefficient use and restrictions on competition."[218] And while the liberalization push might have had more to do with the positions that transmission firms had managed to establish for themselves than with the pathologies of natural monopoly, it did clash with natural monopoly aspects of the gas trade that actors had come by more or less honestly, i.e., practices that had evolved by virtue of the inherent demands of the trade as discussed in Chapter 2 – long-term contracts and major capital investments, principally.[219] The challenge for the EU in the post-2000 period would be to move liberalization forward while allaying actor concerns over these and other issues.

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[217] Ibid, Articles 15 and 16.
[218] Bertrand Malmendier and Jörg Schendel, "Unbundling Germany's Energy Networks," Journal of Energy & Natural Resources Law, Vol.24, No.3, 2006, p.363.
[219] These examples are provided and discussed by Jonathan Stern, "Security of European Natural Gas Supplies: The Impact of Import Dependence and Liberalization," A report for the Sustainable Development Program of the Royal Institute of International Affairs, London, 2002.

5.3 ANALYSIS

Nothing that occurred between 1991 and 1999 disrupted German pre-eminence in the NGR, mainly because the changes that occurred in this period, while significant, were either felt to a far greater extent elsewhere or were managed in such a way that the core of the pre-1990 status quo continued undisturbed. Moreover, despite the Russian presence in Wingas, no actor emerged to eclipse German hegemony, or to disrupt it to any decisive degree. Arrangements with Norwegian and Dutch suppliers had settled into relative equilibrium, and Germany's gas transit arrangements remained solid, feeding steady growth in German consumption from 1991 to 1999.[220] Russian muscle-flexing in the east bore directly on former members of the East Bloc, but had little practical impact on Central Europe. EU-driven liberalization presented more of a problem, but Germany (and other states) diluted and slowed these pressures enough that neither profitability nor flow were undermined. Working through our regime criteria again, I demonstrate that none of the above developments dislodged the country from the hegemonic position it consolidated in the 1970s and 80s.

Drawing on the indicators suggested for *asymmetry of influence* in Chapter 1, the question is whether any other actor used the law, bargaining advantage or geography to reduce Germany's ability to achieve goals, or to achieve better results themselves. The list of candidates is short. Russia appeared to have some potential in this regard – it controlled the westward flow of gas, and it still housed the world's largest supplies. Moreover, it retained or acquired significant new infrastructure, particularly in Belarus and Moldova but also in Eastern Europe and even in Germany. However, these things did

[220] German consumption increased from 62.9 to 80.2 bcm in this period. Source: BP – cf. note 71.

not translate into Russian influence over Germany which, with due attention to the Wingas incursion, continued as before. Russia did gain leverage over smaller states by addressing the 'unexploited advantage' of historically low export prices, but the chaotic state of the post-Soviet economy left the country in no position to exert influence over or wrest benefits from anyone else. Moscow had neither the clout nor, arguably, the motive to draw on bargaining advantage or geography to take what worked in Vilnius or Minsk and try to make it fly in Essen.[221]

The EU had greater potential in this regard. Liberalization, by definition, challenged the fundamentals of transmission company operations. And in the sense that pipeline control, import monopoly, and freedom from scrutiny contributed to the enormous profits, market growth and infrastructural expansion that allowed Germany to capitalize on its geographic advantage, liberalization must be seen as posing some kind of threat to German hegemony. But even though EU efforts were catalysed by domestic legislative changes in the country that reflected enthusiasm for economic openness and fair competition – most notably the 1989 Law against Restrictions on Competition, and the Energy Industry Act of 1998 – there is no reason to infer a weakened management consensus in Germany (or anywhere else). Firm-state relationships remained close, as evinced by the successful resistance of member states to the Transit Protocol and first Gas Directive, when they managed to insert the wedges of weak notification requirements in the Protocol, and negotiated/regulated TPA provisions in the Directive.

[221] One powerful disincentive to alter the arrangements was the generation of hard cash that gas exports were providing. In 1994, for example, the Bank of Russia posits USD 10.59B in Russian earnings; by 1999, this figure had increased mildly to 11.35B, reflecting a late-decade recovery from production declines following the country's financial woes in the late 1990s – in 1997, for example, Russia reaped some USD 16.4B in export earnings, largely on the strength of high production levels in 1996, but production and earnings declined thereafter, only recovering at decade's end. Victor and Victor (2006: 166), and BP (cf. note 68).

Again, there is no mistaking the potential of EU gas liberalization to alter the rules of the game, but in the 1990s it barely dented German ability to capitalize on bargaining advantage, law, or geographic position, to achieve objectives in the NGR.

The most pertinent, and arguably the clearest, case of *distributional conflict* lies in the creation of Wingas, an achievement that saw Russia gain direct pecuniary benefit from activity inside German borders. Wingas sales volumes increased dramatically – nearly 900 percent between 1994 and 2000 – but this was a new venture whose volumes had nowhere to go but up, and is likely better viewed as a contest between Wingas and Ruhrgas than Russia and Germany.[222] The assertion that relative gains accrued to Russia is further weakened by the Gazprom failure to realize expected returns in Europe, as posited by Victor and Victor. In 1994, for example, after allowing WIEH to negotiate on its behalf with the former East German firm VNG, Gazprom achieved only a slight price improvement in the new supply contracts, "a huge disappointment" for the company, "which had originally joined WIEH with the central goal of obtaining much higher margins."[223] It is also worth questioning how much damage was really done to Ruhrgas, "the deep-pocketed, well-connected incumbent;" Gazprom's exports to Germany increased, but the bulk of the increase apparently took the form of higher-volume sales to

[222] The most precise figures available are found in the 2004 Wingas Annual Report which, as is the case with Ruhrgas reports, presents its sale volume data in kilowatt-hours, thus rendering it very difficult to identify actual pricing. Fortunately, the Wingas reports are more forthcoming than those of Ruhrgas; the former, for example, includes earnings figures, gross and net of costs; the latter does not. See Wingas, "2004 Annual Report," accessed 15 January 2010 from http://www.wingas.de/fileadmin/pdf/broschueren/WINGAS_GB_2004_en.pdf.

[223] The authors also provide a rare example of European markup, citing a mid-90s purchase price of USD 2.70 per million British Thermal Units (mmbtu) and a domestic sale price of close to USD 6.00 mmbtu, i.e., a gross markup of roughly 122 percent. See Nadejda M. Victor and David G. Victor, "Bypassing Ukraine: Exporting Russian Gas to Poland and Germany," in David G. Victor, Amy M. Jaffe and Mark H. Hayes (eds), Natural Gas and Geopolitics: From 1970 to 2040. Cambridge: Cambridge University Press, 2006, p. 152.

Ruhrgas.[224] The Essen-based firm did feel the downward pressure that competition with Wingas exerted on price, but despite this incursion on the Ruhrgas bottom line, the company retained close ties to Gazprom, continuing to deal extensively with the Russian firm, and obtaining the largest foreign share in Gazprom stock (close to 6 percent by 2005).[225] Moreover, Ruhrgas retained its favoured position within the German management consensus; the state "cautiously welcomed competition but stood ready to intervene if these new entrants caused too much harm" to Ruhrgas.[226] Finally, the damage to Ruhrgas – undeniable where lower prices and Wingas' new market share were concerned – was mitigated by a general growth in European consumption, and by gains in East Germany where, in addition to the 35 percent stake it obtained in VNG, Ruhrgas was stepping into an underdeveloped market where gas constituted only 8.7 percent of East German energy consumption, and in which only 4 percent of former GDR consumption went to household use. This immensely promising opportunity softened the effect of the Wingas incursion.[227]

Some of the most illuminating *coercive influence* dynamics in this phase lie in Russia's post-Soviet adjustment, where a continuum of complication in our ability to assess cost/benefit factors is evident. Relationships like the Russia-Baltics pairings sit at a

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[224] Ibid, p. 162, 164.
[225] Ibid, p. 152. The German firm also held "the only non-Russian position on Gazprom's eleven-member board of directors."
[226] Ibid, p. 124.
[227] There was a 17.1 percent increase in consumption in Germany between 1994 and 2005, and a 27.4 percent increase in Europe generally. BP Statistical Review of World Energy: June 2009 – Historical Data. Accessed 16 January 2010 from: http://www.bp.com/productlanding.do?categoryId=6929&contentId=7044622. See also Victor and Victor (2006: 152). The bulk of gas delivered in the former East Germany fed power plants, with another 35 percent supplying industry. The household use component was only 4 percent. Moreover, the "market opportunity was enhanced greatly" by previous degradation of the environment in the GDR, giving a "huge boost" to Ruhrgas, who was in a position to slow the trend by supplying cleaner energy. International Directory of Company Histories, Vol. 38. London: St. James Press, 2001. Accessed 12 July, 2010, from: http://www.fundinguniverse.com/company-histories/Ruhrgas-AG-Company-History.html

pole of relative simplicity. Because Lithuania, Estonia and Latvia lacked counter-leverage (no outside supply option; small market; end-use buyer), the cost to Russia of sudden price hikes was low; if the Baltic states refused the new prices and chose to stop buying Russian gas, it was not a great loss to Gazprom.[228] The logical dynamic is neatly sequential: Russia identifies a desirable scenario (European pricing for the Baltics), it informs the buyers, and the buyers either accede or refuse. In either case there is a fair degree of clarity with regard to what would likely happen next.

But as we move through Eastern Europe and toward the pole of relative complication that is Ukraine, the neatness disappears. The process becomes far more iterative and drawn-out, with multiple considerations that overlap temporally and thematically. Additional complication came in the form of 'he-said, she-said' allegations, untidy political arrangements and opaque business practices. As in the Baltics, Russia consistently imposed higher prices on Ukraine but, in this pairing, pricing was but one dimension of a complex interplay of coercion and resistance, of leverage and counter-leverage, i.e.: Russia demanded higher prices, Ukraine demanded higher transit fees; Russia threatened to turn off the taps, Ukraine drew security from the knowledge that it had gas in storage and that it could siphon gas from the trunklines to Europe; Russia needed cash, and Ukraine could not pay if it had no gas to sell; Russia tied debt repayment to asset acquisition, Ukrainian leaders knew it to be both strategically unwise and politically suicidal to agree. Clearly Russia was willing and able to absorb some costs, either in foregoing debt repayment or gas rents in order to extract different benefits from Ukraine, e.g., Sevastapol assets or distribution companies, but in the end its need for

[228] Russia had additional leverage over these states from previous energy deliveries, something it used to gain control of infrastructure in Estonia, Latvia and Lithuania. See Balmaceda (1998).

Ukrainian transit made dire, sustained coercion unlikely to be worth the cost. Assessment of coercion/cost considerations is therefore very difficult in the case of Russia and Ukraine – a logical analysis could certainly be constructed, but it would be substantial enough to constitute an entirely separate dissertation. Again, the 1998 piece by Balmaceda must be cited here – focusing on the interplay of domestic and international considerations in the Russia-Ukraine energy relationship, she offers a compelling portrayal of Russian pressure and Ukrainian dependence, exploring Moscow's structural advantages and its apparent willingness to exploit them with regard to gas pricing, oil refining, and all manner of commercial and infrastructural assets.

For our purposes, it is more useful to focus on the impact of cost/coercion considerations on German hegemony. This has two dimensions: the interplay between Germany and the EU on liberalization, and between Russia and Germany more broadly. The discussion in Chapter 2 concerning the limits of central EU authority will be recalled here. The absence of autonomous Commission authority to rewrite the rules meant that Brussels had to rely on the member-state-based European Parliament for Gas Directive legislation, a reality that all but ensured that the Directives would be watered down. It also meant that the EU did not really have the option to create a powerful, central regulator, and Brussels was forced to think in terms of NRAs instead. Regulation did prevail in the 1994 dispute that involved Ruhrgas, Thyssengas, the federal cartel office, the Berlin Court of Appeals, and the European Court of Justice, for example. Moreover, it did so by drawing upon legal vagary in the situation to diffuse the issue throughout different jurisdictions and offices, avoiding a direct showdown between Brussels and Bonn. Again, the legislative changes that had previously occurred in Germany were

crucial to this diffusion – had a context not developed that was philosophically (and practically) favourable toward competition, the clash of interests would have been more concrete and direct, with more decisive implications. Arguably, this context served to lower the costs of coercion for the EU – if Brussels, in advancing its internal market agenda, had an accurate understanding of the leeway it had in pushing NGR actors, it would be able to manage the balance of interests where the member states were concerned. This assessment appears to be borne out by the incremental but steady progression of liberalization through phase two and beyond.

But for the most part in the second phase, any coercive potential the EU had was countered by the ability of the German management consensus to resist, i.e., through the longstanding interconnections of business associations, supervisory bodies and direct state-firm relationships, as discussed in Chapter 2. It might be argued that the path-dependence imposed on actors through these same interconnections also presented drawbacks, as suggested earlier with regard to gas industry actors' atomized approach to the consultations on the Transit Protocol. With the management consensus organized according to industry sub-groups, it would have seemed natural to NGR actors to operate through the same channels when the Transit Protocol was being negotiated. Had German (and other) gas actors instead come to the table in a more unified fashion – as the chemical industry and consumer groups had done – their effectiveness might have been enhanced, and the wedge that the EU was able to insert into the door that protected the large transmission companies might have been less substantial. Resistance from the German side was hardly ineffectual – the firm-state counter-push did water down the first Gas Directive, and limited the impact of the second one, as discussed above. But, in all

likelihood, both government and industry saw clear writing on the wall; the EU demonstrated the will and ability to impose liberalization incrementally, patiently, and with increasing effectiveness. German actors have responded by turning to options that fit within the rules, as in the case of the TPA exemptions to be discussed in Chapter 6. These actions – the lobbying effort, the succesful dilution of the EU iniatives, and the willingness to reorganize and recast itself – have bought the industry time, and reflect a realistic assessment of the costs involved in resisting the EU push. There was no question that they had to resist – liberalization was a clear threat – but compromise and delay were the tactics of choice because German actors accurately assessed the EU's long-term capacity to change the rules of the game.[229]

Things were very different in the question of Russian coercion of Germany. Unlike the EU, Russia had neither the means nor the motive to coerce. The absence of the unexploited advantage inherent in subsidized gas exports discouraged price hikes – the Germans were already paying the price that the Russians were struggling to impose elsewhere, and pricing arrangements were tied up in long-term contracts that pegged gas prices to oil. Contracts could always be voided, of course, but this could not remotely have been wise – Russian desperation for hard currency made terminal irritation of its most valuable customer a non-option. Such a course was rendered even more non-viable by the existence of outside supply options for Germany, and by its importance as a transit state for other high-order buyers in Europe, primarily Italy and France. Furthermore, the

[229] Like the cost/coercion dynamics of the Russia-Ukraine gas relationship, this 'assessment' could constitute its own dissertation – primary considerations would tentatively include the commitment within the state to EU goals and to the EU itself; the orientation and (in)tractability of the gas management consensus within the country, the domestic political implications of acceding to or resisting liberalization where the German state was concerned, and so on. I have opted, for the sake of brevity, to take a higher-altitude view that takes all of this as a given, i.e., whatever the considerations were, and however the interaction among them unfolded, we are left with a reasonably clear dynamic of initiative, resistance and outcome.

lock that Ruhrgas and other transmission firms had on pipelines made it pointless for Russia to seek to acquire infrastructure as it had done elsewhere, particularly in light of the opening that already existed in Wingas. In the end, it made far more cost/benefit sense for Russia to play by the existing rules, to reap the benefits of German ability to pay, and to seek whatever benefit it could through Wingas and WIEH.

As with phase one, German engagement of *reputation* resembled more closely the Keohane model of trust-building than one of toughness. Continental importers, having established high levels of trust with exporting firms and governments, were dealing by the 1990s in relationship maintenance rather than relationship-building. The German-Russian relationship emerged from the 1980s, and remained throughout phase two, as one of the strongest and most consistent pairings in the regime – Germany's status as the largest European off-taker of Russian gas intensified during phase two, from slightly less than a quarter of Russia's total 1990 gas exports of 105.2 bcm to slightly more than a quarter of 131.06 bcm in 2001.[230] And as with the good faith that the country established with its support for the Soviet Yamal project in the 1980s – defying the U.S. in the process – Germany built confidence as a clear lifeline to the cash-starved Russian state throughout the decade.

Any reputation the EU was going to build in natural gas matters, on the other hand, had to be constructed from scratch. Its noteworthy but limited success on liberalization had not yet advanced to the point where Brussels was willing or able to display the outright toughness that it did after 2000, and it can hardly be said to have

[230] Victor and Victor (2006: 130). Though the countries used in the calculation of export totals differs from those of the IEA estimates (1995: 175), the proportions are nearly identical, as they are for the figures that appear for the year 2000 in Amy Myers Jaffe and Robert A. Manning, "Russia, Energy and the West," Survival, Vol. 43, No. 2, 2001, p. 137.

demonstrated its worth to the industry through the its performance on the ECT. This is unsurprising. The EU's long neglect of natural gas matters not only left it with no track record as a 'player' in the NGR, but it also – it must be assumed – left Brussels with a crippling inexperience in gas matters. As adept as it was in the legislative realm, the EU could not possibly be more capable than transmission companies in presenting structured arguments about natural gas to states. Here, transmission companies had two advantages beyond their longstanding engagement with national governments: they were sterling contributors to the status quo of the natural gas 'public good;' and they could browbeat EU policymakers with the linguistic nuances and truisms of the trade.[231]

Russia extracted more mileage from reputation. Beyond (and in contrast to) the Keohane-esque reputation it maintained as a reliable partner in Central and Western Europe, its use of reputation with the former republics was more like the darker model of Alt et al. But its effectiveness was not absolute. The short durations of gas shutdowns in Belarus and Ukraine in the 1990s, for example, look in retrospect as much like posturing as actual commitment by Moscow. The effect, in all likelihood, was not to prove to the transit states Russian potential for nastiness – they were undoubtedly well aware of that already – but to prove how badly Russia needed their cooperation to maintain its European lifeline. Russia was hardly impotent in the matter – Gazprom did acquire the assets it sought in Belarus, and made acquisitions in Ukraine; it also made progress on debt repayment by these countries. But manipulation of gas flows, as events after 2000

[231] In 1993, Jonathan Stern summarized these complexities, listing a series of questions requiring concrete answers before TPA could be established, including: specification of which parties would be allowed to participate; which facilities were included (i.e., pipelines, storage, LNG terminals, "treatment and blending facilities," etc.); whether or not other services besides gas transmission were covered; what obligations pipeline owners were obliged to provide; what a definition of "available capacity" was; and how the owner was to calculate transit charges. Stern, in Mestmäcker (1003: 185).

demonstrate, is a particularly difficult form of brinkmanship in which reputation can only take one so far, and which most certainly cuts both ways. Ukraine has seemed well aware of its bargaining strength and counter-leverage where reputation was concerned (and built its own reputation through willingness to siphon gas). Belarusian accedance, on the other hand, might not have resulted from uncertainty of what Russia might do; it might simply have been the only option available. In any case, Russia pushed things as far as its crucial commitments to Europe would allow in the 1990s, and was unwilling to absorb the costs that investment in a more dire reputation for gas-related toughness would have required. This changed after 2006.

The clearest relevance of *hegemonic decline* in phase two lies in the Russian example; here too, though, the record is mixed. Politically, we could not ask for a better example of a declining hegemon – Russia's loss of regional authority was intimately connected to a decline in Moscow's ability and willingness to make the rules and to absorb the costs of maintaining control. Given the history of Soviet interevention (e.g., Hungary in 1956; Czechoslovakia in 1968), the absence of such aggression in Ukraine reflects clear change in the country's costs-benefits calculus: even if there were concrete incentives to try to maintain Soviet-era hegemony among its gas-buying and gas-transiting neighbours, Moscow clearly lacked the will and/or the ability after 1991 to do so by force. Commercially, though, there is indication to the contrary. In its hardball dealing with the Baltics, Belarus, Moldova and Ukraine, Russia did demonstrate will and ability – though not with universal effectiveness – where the absorption of coercion costs is concerned. Moreover, it did so under the very sort of 'environmental' change cited by Alt et al. Certainly, the country was limited by the 'double-edged sword' constraints

discussed above, but it would be difficult to argue that Moscow could have done more for itself by being more aggressive or more tolerant of the costs of coercion.

Given the absolute need to keep the gas flowing, Russia's performance in meeting the expectations of its European customers was, under the circumstances, laudable, and though its regional political hegemony eroded in the Yeltsin years, Russia raised its voice in the region, setting the stage for the Putin-led initiatives of phase three. In phase two, however, these assertions did nothing to undermine Germany's ability to derive benefit from the NGR. European consumption increased throughout the decade, and Germany remained the leader in continental consumption, and in transmission for other states through through the Wingas and Ruhrgas pipeline systems.[232] It moved decisively into the former East Germany through the VNG stake it obtained in 1990, preceding the finalization of German reunification by several months. Finally, at decade's end it was still the primary destination for supplies from Norway (19.89 bcm), the Netherlands (20.2 bcm, equivalent to the total Dutch exports to Belgium, France and Italy combined), and

[232] As the U.S. Energy Information Adminsitration outlines it, "Germany is both a major destination point and major transit center for Europe's natural gas pipelines. [with] five major pipelines on land, three from the North Sea, and several in the construction and planning stages … existing pipelines include: 1) The MEGAL pipeline from the Czech Republic to France through Germany, with annual capacity of 777 billion cubic feet (Bcf), 2) the TENP pipeline from the Netherlands to Germany and onward to Switzerland and Italy, with an annual capacity of 247 Bcf, 3) the STEGAL pipeline from the Czech Republic to Germany, with an annual capacity of 283 Bcf, 4) the NETRA pipeline from Etzel/Wilhelmshaven to Steinitz/Bernau, with an annual capacity of 706 Bcf and 5) the MIDAL pipeline from the port of Emden to Ludwigshafen with an annual capacity of 459 Bcf. The pipelines that bring Norwegian natural gas ashore are Norpipe …and Europipe I & II, which land at Dornum. From the Dornum receiving station, the natural gas is linked either to the NETRA pipeline or to the metering station at Emden, where the MIDAL pipeline begins. The TENP pipeline can also bring in UK gas by way of the Netherlands. Wingas … is planning to construct a pipeline with a capacity of 353-424 Bcf per year from Heppenheim in Southwest Germany to the states of Badem-Wurttemburg and Bavaria in Southeastern Germany. Ruhrgas is the largest shareholder in the MEGAL, TENP, and NETRA pipelines, though it has a majority stake only in the TENP pipeline." EIA, "Country Analysis Briefs: Germany," 2006. Accessed 22 July, 2010, from: http://www.geni.org/globalenergy/library/national_energy_grid/germany/GermanyCountryAnalysisBrief.shtml.

Russia.[233] In every significant respect, German hegemony was maintained and even intensified, despite the changes to the East.

[233] Statistics for 2001 from BP Statistical Review of World Energy, 2001. Accessed 22 July, 2010, from: http://www.tsl.uu.se/uhdsg/Data/BP_Stat_2002.xls.

CHAPTER 6 2000-2009 – RESTRUCTURING

The first phase of the European gas trade (1966-1990) saw Germany consolidate NGR hegemony that it sustained throughout the second phase (1991-2000), despite the changes in the East and the emergence of new players in Europe. These developments intensified in the eventful third phase (2000-2009). Russia began to assert itself in natural gas matters, moving beyond the confusion of the 1990s – wrought most notably by the "Yeltsin dash-for-capitalism" and persistent cashflow problems – to find clarity and confidence under Putin. An improvement in economic fortunes (including an annual growth rate of some 6.7 percent) prompted Goldthau to posit similar expansion of "egos in the Kremlin" and "Russia's global aspirations."[234] Buoyed by these better fortunes, Moscow looked beyond its former sphere in earnest, taking 'corrective' action in its gas relations with the West, and establishing Gazprom as a powerful, outward-looking force.[235] The record of the European Union was also dramatic. Stonewalled by a recalcitrant Russia on the Energy Charter Treaty, the EU gained traction and inertia with its liberalization initiative, passing its second Gas Directive in 2003, and its third in 2008. States and continental transmission companies have had to cope with these changes, resisting where they could, adjusting where they needed to, and seeking opportunities where they arose.

After summarizing the key developments in this period – the new assertiveness in Russian gas relations after 2000; the crises in Ukraine; new EU achievements with liberalization; changes in the structure of the industry in Europe; and major new pipeline

[234] "Resurgent Russia?" p. 53.
[235] Dieter Helm, "Russia's Energy Policy: Politics or Economics?" online article for Open Democracy, 17 October, 2006. Accessed 11 January, 2007 from: http://www.opendemocracy.net/globalization-institutions_government/russia_energy_4004.jsp.

projects – I turn the Alt et al criteria to the question of German hegemony again, examining the effect of the changes since 2000 on its pre-eminence in the NGR. The indicators suggest that while German firms remain absolutely dominant within the country's borders, the edge that this market had over others has narrowed. Moreover, I suggest, while Germany appears to be in no immediate danger of being superseded by Russia (or anyone else), it is becoming increasingly reasonable to speak in terms of a German-Russian 'co-hegemony.'

6.1 Russia Regroups

Russia's unprecedented assertiveness in regional gas matters in the 2000s was marked by three core themes: further resistance to European-style gas governance; continued difficulties in Ukraine, with major cut-offs in 2006 and 2009; and the pursuit of Russian objectives in European markets, including major new pipeline initiatives. Activity in these areas contributed significantly to an uber-theme that emerged after 2000: the emergence and intensification of 'energy security' debates in Europe.

6.1.1 Resisting Europe: The ECT, Gas OPEC and China

Reports of Russian rejection of the Energy Charter Treaty from the mid-2000s on belie the optimism that surrounded the process as the millenium turned, when there had been signals from both sides that European-style gas governance would eventually be implemented in Russia.[236] Early promises from the Russian government that it remained

[236] Concerns were expressed about Russian pricing and transparency. The International Energy Agency (IEA), for example, foresaw "gradual liberalisation" of the gas trade in Russia, but cautioned that the "speed of achieving competition and its extent will depend on the success of price reform," and on "the

"committed to achieving ratification" seemed sound as the Duma began deliberations in January, 2001. But the hearings did not go as Energy Charter representatives had hoped.[237] Russian critics of the Treaty – ominously, as it turned out – cited the potential for "damage" to the country's "economic interests," and the Duma opted to play for time, recommending "further analysis" before ratification would be considered.[238]

This hesitation came on the heels of two key personnel changes. Following the sudden resignation of Boris Yeltsin, Vladimir Putin became Acting President on 31 December, 1999, and won the presidential elections in 2000. Putin then appointed a former colleague from the St. Petersburg Mayor's Office, Alexey Miller, as Deputy Minister of Energy, making him Chairman of the Management Committee of Gazprom the following year. The move was tied to Putin's desire to clean up Gazprom, which was dealing with allegations of nepotism, largesse, and corruption, and Putin-induced management changes aligned the firm "much more closely" with the government's plans. There is little doubt that Putin turned the company around, aided in no small measure by economic improvements throughout the region that made it easier for Gazprom to operate profitably.[239]

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exercise of political will necessary to create appropriate standards of governance and transparency among powerful interests in the gas sector." IEA (2002: 109).

[237] Energy Charter Secretariat, "Russian Parliament To Consider Energy Charter Treaty Ratification In January 2001," Charter News: A Newsletter from the Energy Charter, Issue 5 (August, 2000).

[238] Energy Charter Secretariat, "Russian Parliament Considers Ratification Of The Energy Charter Treaty," Charter News: A Newsletter from the Energy Charter, Issue 6 (Spring, 2001). Interestingly, the ECT did receive endorsement from some Russian oil companies, including Rosneft, but there was no such enthusiasm from Gazprom.

[239] Stern, The Future of Russian Gas and Gazprom (2005: 105). Goldman maintains a pessimistic view, suggesting that Putin arranged to ensure that the company paid "very little" in taxes and dividends and, lest it appear that the oil industry was unique in its vulnerability to vice, enabled "many of Gazprom's gas-producing wells, pipelines and distribution entities" to be "freely parceled out … to a wide collection of Gazprom executives' wives, children and mistresses." (2008: 60). See also Economist, "Gassing Away at Gazprom," Vol. 357, Iss. 8202, 2001, p.104, and Paul Starobin and Catherine Belton, "Gazprom on the Grill," Business Week, 4 December, 2000, Iss. 3710, pp.194-198.

But these efforts, apparently, were not accompanied by a Putin-led effort to scuttle the ECT. In his analysis of Russia's ECT posture between 2000 and 2003, Boris Barkanov argues that the Russian leader initially valued the Treaty, but was increasingly forced to cope with arguments against ratification, which had their roots outside government. Detractors gained crucial traction around 2002, becoming increasingly influential among policymakers and the public by linking ratification to EU liberalization (particularly its perceived threat to long-term contracts), and to the more troublesome aspects of the Transit Protocol. Regardless of when the exact shift took place, Barkanov writes, "it is clear that by the end of 2003, support for the ECT had eroded and the transformation in thinking was complete. Opponents of the ECT had won."[240]

Subsequent events bear this out. Stern suggests that while Gazprom itself had been the original opponent of ratification, it became "less strident" after 2001, when opposition gained traction within the Duma and beyond. The focal point was gas transit – it will be recalled that the ECT required TPA in transit state pipelines, a non-issue for Russia were it not for their inclusion of Central Asian gas in their European exports. Energy Charter representatives strongly indicated that something could be done about this, but this now-loaded issue was taken up by Russian negotiators in the discussions over Russia's WTO accession.[241] There was less and less doubt as to the direction things

[240] Barkanov also cites an effort to "unlink" the ECT from Russia's accedence to the WTO, which ECT proponents had been presenting as a process that ECT ratification would simplify. Boris Barkanov, "Constructing the National Interest: The Energy Charter Treaty and Transformations in Russian Foreign Energy Policy," A Paper presented at the Political Science Graduate Student Conference, University of California, Berkeley, May 2, 2007, pp.46-54. Accessed 9 December, 2009, from http://74.125.155.132/scholar?q=cache:ATRmwm9HWD0J:scholar.google.com/+Boris+Barkanov,&hl=en&as_sdt=2000.

[241] The head of the Energy Charter, Ria Kemper, complained that "the views … that ratification would undercut Russia's position on European gas markets by forcing Russia to open its network up to transport cheaper gas from Central Asia, are based on an incorrect reading of the Treaty's provisions, which specifically exclude mandatory Third Party Access." Energy Charter Secretariat (Spring, 2001: 2). When

were taking – by 2006, a vocal Duma official was deriding the EU "cartel of consumers" and suggesting that Russia should organize "its own gas alliance" to alter the "balance of forces" to favour producers.[242]

Putin came increasingly to refer to 'sovereign resources,' and to pledge that neither Gazprom nor its pipeline network would be broken up, enshrining this in Russian law in 2006. Increasingly visible nationalist sentiment led The Economist in April of 2007 to use the term "smug" to describe Putin's posture on the resource issue, and terms like "bullied" and "blocked" to describe Moscow's treatment of Royal Dutch Shell and BP on Sakhalin Island in September of 2006.[243] Interestingly, through all of this, Russia applied the Treaty provisionally. But in August, 2009, came the death knell: Moscow officially informed the Energy Charter of its intention not to become an ECT Contracting Party. According to the terms of the ECT, this meant that Russia's provisional application of the ECT would terminate 60 days later – which it did, on 18 October, 2009.[244]

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gas transit came up in the WTO talks, Russia argued that the ECT negotiations were the "appropriate" forum for the gas transit discussion. See The Future of Russian Gas and Gazprom, p. 137-138.

[242] Igor Torbakov suggests that this official, Valery Yazev, Head of the Duma's Energy, Transport, and Communications Committee was described in Russia as "Gazprom's chief lobbyist in the State Duma" and an "unofficial mouthpiece of the Russian authorities." Igor Torbakov, "Scramble For Eurasian Energy Resources Intensifies," Eurasia Daily Monitor, 3 November, 2006 [online]. Accessed 11 January 2007 from: http://jamestown.org/edm/article.php?article_id=2371613.

[243] See David Wood,"Russia's Drive for Power – 2: Gazprom Controls Gas Exports to Europe, Asia," Oil & Gas Journal, Vol. 105, No.7, 2007. For a then-and-now perspective on the BP-TNK experience, see Gazprom, "Gazprom, BP And TNK-BP Enter Into Agreement On Major Terms Of Cooperation," 22 June, 2007. Accessed 2 March, 2010, from: http://old.gazprom.ru/eng/news/2007/06/24143.shtml, and Vladimir Socor, "Russia Threatens BP Kovykta Assets," Asia Times Online, 24 February, 2010. Accessed 2 March, 2010, from: http://www.atimes.com/atimes/Central_Asia/LB24Ag02.html.

[244] Russia also rejected, in the same step, the Protocol on Energy Efficiency and Related Environmental Aspects (PEERA), an associated document that it had also applied provisionally. See 'Frequently Asked Questions: What is Russia's Status With the Energy Charter?' Energy Charter website. Accessed 7 September, 2009, from http://www.encharter.org/index.php?id=18. With hopes of ECT ratification dashed, the primary EU link to the Kremlin is now the EU-Russia Energy Dialogue, a forum established in 2000. The Dialogue, prompted by EU expansion into Eastern Europe and by the Russian application to the WTO, aimed to define an EU-Russia "energy partnership," and to discuss "cooperation on energy saving, rationalisation of production and transport infrastructures, European investment possibilities, and relations between producer and consumer countries." See Joint Statement issued at the close of the EU-Russia Summit, Paris, 30 October, 2000, p.2. Available at:

Two other forms of resistance to European gas governance are noteworthy: 'Gas OPEC,' and the diversion of gas to China and other countries in the Far East. Both prospects have been treated skeptically in the West, and though they never seem to do more than percolate beneath the surface of Euro-Russian discussion, they never seem to disappear either.[245] The institutional foundation of the 'Gas OPEC' idea is the Gas Exporting Countries Forum (GECF). Set up in 2001, it includes Iran, Venezuela, Algeria, Bolivia, Egypt, Equatorial Guinea, Nigeria, Libya, Trinidad and Tobago, and Qatar.[246] The goals of the organization, however, seem ambiguous, as reflected in a mission statement pledging to promote "appropriate dialogue among gas producing and consuming countries to ensure appropriate balance in the sharing of risk associated with the gas markets and fair pricing for both producers and consumers."[247] Little alarm has

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http://www.delrus.ec.europa.eu/en/images/pText_pict/240/sum21.doc, accessed 10 August, 2009. Lauded by the EU as a 'shared vision' in which producer-supplier relationships would be augmented by a "political partnership" centring on energy security, the Energy Dialogue "demonstrated the new form of relationship that Brussels intended to create with the Union's major energy suppliers." The high language masked a fairly blatant Euro-centric view of the Dialogue: "The principles of the internal energy market, such as energy efficiency, reform of internal industrial structures, reform in the electricity sector and unbundling, could provide part of the reference framework for the restructuring of Russia's energy sector … [e]ven if the two markets are separate, they should be inspired by shared [i.e., European] principles." See Communication from the Commission to the Council and the European Parliament - The Energy Dialogue between the European Union and the Russian Federation between 2000 and 2004 /* COM/2004/0777 final */. http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52004DC0777:EN:HTML. Accessed 10 August, 2009. This differed from the Russian expectation that the Dialogue would "create mechanisms for financing important infrastructure projects of common interest." Whether the Dialogue exists now as a venue for European ventures into the upstream, or for Russian procurement of external funding, it uses thematic working groups and high-level channels of communication to create what is likely now the most comprehensive 'European' discussion with Moscow.

[245] Part of the credibility problem with the 'Gas OPEC' issue could have been that Valery Yazev – the aforementioned Gazprom "lobbyist" and "mouthpiece" of the State in the Duma – was one of the proponents, apparently telling the Russian Gas Association in October, 2006, that "producers and transporters in the former Soviet republics should form an International Alliance of National Nonprofit Gas Organizations," and that Putin "stands behind the idea." See Torbakov, 2006. Putin himself was more circumspect, having limited his enthusiasm to an offer to head up a study on gas pricing, and saying that "it would be a good idea to co-ordinate our activities." Kallaugher, 2007.

[246] Norway and Kazakhstan hold observer status.

[247] Accessed 31 January, 2010, from: http://www.gecforum.org/. Perhaps feeling that such statements represented the extent of the GECF's reach, the EU expressed no significant concern about the cartel idea until 2006, just as Moscow's commitment to the ECT had started its terminal downward trajectory. The trigger was a bilateral Memorandum of Understanding (MOU) that Gazprom signed with Sonatrach, a

been evident among gas analysts or professionals, not least because of the constraints imposed by basic properties of gas and gas markets, e.g.: the tendency of pipeline economics to make gas markets regional; substitutability of other fuels; and the prevalence of long-term, bilateral contracts, as opposed to decentralized oil spot markets. Moreover, Russian participation in a cartel would lend unwelcome fuel to those Western analysts who have been decrying Russian gas policy as malign for the better part of a decade. And finally, it would impose on Russia the very sorts of multilateral constraints that it has struggled to avoid from the EU. As one observer put it,

> … it is highly unlikely that Russia … would agree to such a cartel. For Moscow, state control over export policy is primary; agreeing to cede some of its control, by coordinating output or export policy with another state or states, would appear antithetical to current policy.[248]

Concern over diversion of gas to East Asia has been similarly tepid. China's quest for energy is well documented, but the fact that the two countries are neighbours has not helped on the gas front, where distance remains a principal constraint. There appear to be three pipeline options. The first, from the Yamal or Urengoy fields, could run some 3,000 kilometres through Kazakhstan to Alanshankou in Xinjiang province – shorter than the Yamal line to Europe, but an enormous undertaking across daunting terrain. A more plausible scheme would see gas exported southward from Sakhalin Island to Nakhodka,

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particularly alarming prospect for Italy, which receives roughly 65 percent of its imported gas from Russia and Algeria. This prompted Italian Prime Minister Romano Prodi to ask the European Commission to "look deeper into the matter and seek clarifications from both parties" about the agreement. It also triggered a confidential study by the NATO Economic Committee that warned of Russian intent to establish "an OPEC for gas that would strengthen its leverage over Europe." See Hakim Darbouche, "Russian-Algerian Cooperation and the 'Gas OPEC': What's in the Pipeline?," Centre for European Policy Studies, Policy Brief No. 123, March, 2007. Accessed 31 January, 2010, from http://www.ceps.eu/book/russian-algerian-cooperation-and-gas-opec-whats-pipeline.

[248] Florence C. Fee, "The Russian-Iranian Energy Relationship," Middle East Economic Survey, Vol. 49, No. 11, 12 March, 2007. Accessed 23 March, 2007, from: http://www.mees.com/postedarticles/oped/v50n11-5OD01.htm.

near Vladivostock for conversion to LNG for all of East Asia. But here too the costs are astronomical, estimated in 2006 at some $37 billion.[249] The third option is a westward pipeline to the central oblast of Irkutsk to augment the giant Kovykta field and to connect to China through the Altai Mountains at the western edge of Mongolia.[250]

A better question might be how badly Russia wants to sell gas to China at all. Beijing has courted Russia assiduously for several years now, procuring agreement in 2006 for 30-40 bcm/year to China after 2010, "with a possibility of increasing deliveries" to 60-80 bcm/year. In October, 2009, Putin signed off on a "preliminary agreement" between Gazprom and the China National Petroleum Corporation (CNPC) that could see Russia ship gas volumes of 70 bcm/year to China from Siberia and the Far East, "including Sakhalin." Putin acknowledged China as "a colossal market," and lauded the value of "diversification of supplies" before saying cooperation with China was "growing in many ways: mining, joint work on pipelines, oil supplies and in the future, *possibly, gas*."[251] Such lukewarm commitment suggests that Russia has been in no hurry to establish gas links with China. Cost could be one issue – on talks held in 2008, one observer wrote:

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[249] Interestingly, this is exactly what Exxon-Mobil had in mind in the middle of the decade, apparently developing a plan to export gas from its Sakhalin concession to China, where it believed it could get market price, as opposed to selling it within Russia.[249] This clashed with the Russian government's Irkutsk plans. Kupchinsky, 2006.

[250] Ibid. See also an excellent U.S. Energy Information Agency (EIA) report, with maps, on Russian Energy at http://www.eia.doe.gov/emeu/cabs/Russia/NaturalGas.html. It could be significant that the Altai pipeline link is already under construction on the Russian side, and is slated for completion by 2015. Moreover, in April, 2011, the parties allegedly agreed to reopen this discussion. On construction on the Altai-Kovykta link, see John Helmer, "China Stumbles In Forging Russia Gas Deals," Asia Times Online, 11 June 2008. Accessed 11 June 2008 from: http://www.atimes.com/atimes/Central_Asia/JF11Ag01.html. See also Ioannis Michaletos, "Russian Energy Moves Indicate a Shift in Priorities," International Analyst Network [online], 17 April, 2011. Accessed 11 May, 2011, from: http://www.analyst-network.com/article.php?art_id=3763.

[251] Emphasis added. Yury Alexandrov, "Russia opens energy window to the East," RIA Novosti, 12 December, 2006 [online]. Accessed 1 February, 2010, from http://en.rian.ru/analysis/20061212/56819794.html.

Chinese negotiators have already made one colossal mistake in pricing their supply of liquefied natural gas (LNG). They are making a second in trying to draw out of Russia a discount for natural gas. For China to insist on tying Gazprom down to the extraction cost of Siberian gas – at a fraction of the price Gazprom sells its gas to Western Europe – is producing an impasse in current negotiations and slowing down Russia's readiness to invest in the pipeline systems, on which Chinese calculations depend.[252]

It is difficult to imagine why China would take this approach with Gazprom. Beijing's absolute need for gas puts it in no position to haggle over price, particularly since Gazprom has solid commercial relationships in Europe. Under such circumstances, there seems little incentive for Gazprom to divert Yamal or Urengoy gas from European buyers. As The Economist put it in 2007,

Europe may depend on Russia for half its gas imports, but Russia is dependent on Europe for the bulk of its export revenues. Repeated threats by the Kremlin to divert the flow of gas to China mean little without pipelines that it would take many years to build. *Switching off gas to Europe will never make commercial sense for Gazprom*.[253]

But there is also a political concern. New pipelines would almost certainly require Chinese investment, which would obligate Russia to commit for the long term. This could well be the heart of the matter – gas linkages, once put in place, are not normally undone. Even if the flow of profit benefits the exporter, there is a permanence to such connections that, it appears, Russia is overtly conscious of, and we should wonder how badly Russia wants to be enmeshed in such a relationship with Beijing. The gap of three-plus years between the original agreement and the current one, the continued non-

[252] Helmer, 2008.
[253] Emphasis added. Kevin Kallaugher, "A Bear At The Throat," Economist [online], 12 April, 2007. Accessed 17 April, 2007, from http://www.economist.com/world/europe/displaystory.cfm?story_id=9009041.

commital talk, and the relative simplicity of building a pipeline link from Sakhalin to the Chinese border, appears to endorse this view.[254]

6.1.2 The Ukraine File

Russian suspensions of gas deliveries to Ukraine between 1993 and 1995 were part of a larger pattern of "cut-offs, explicit threats, coercive price policy and certain take-overs" carried out by Russia after 1991. Ukraine was not alone – Estonia, Latvia and Lithuania (1992-93), Moldova (1999), Georgia (2001, 2003), and Belarus (2003, 2004) all found themselves on the receiving end of such tactics from Gazprom. In all, a 2007 Swedish Defence Agency report cites 55 such incidents between 1991 and 2006.[255] None of these, however, approached in severity the disputes between Moscow and Kiev in 2006 and 2009. Drawing heavily on reviews by the Oxford Institute for Energy Studies (OIES), these disputes are summarized below.

The 2006 Russia-Ukraine Gas Crisis

The first Ukrainian gas crisis was rooted in the difficulties explored in Chapter 4: failed price negotiations; Russian reliance on Ukraine for transit to Europe; Ukrainian debt; diversion of gas in transit; and Russian designs on pipelines traversing Ukraine. The parties had signed an agreement in 2004 that settled the price/transit issues and provided debt repayment terms, but new problems emerged in Spring, 2005, when the new

[254] In April, 2011, the issue was raised again between Moscow and Beijing. Signing a new Memorandum of Understanding, the parties

[255] Larsson (2007: 80).

government of Viktor Yushenko allegedly cancelled the 2004 contract.[256] Kiev had two main objections: terms of the debt repayment (which it now deemed "excessive") and Russia's designation of a private joint-venture, RosUkrEnergo, as the exclusive shipper of Turkmeni gas to Ukraine.[257]

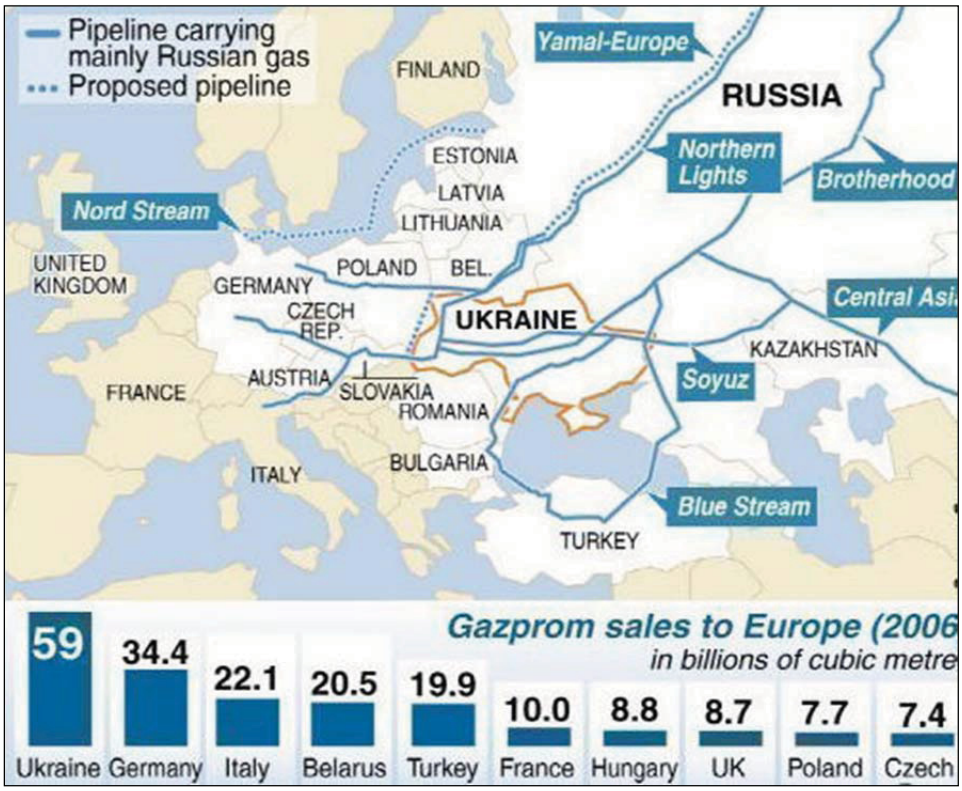
By mid-2005, a "drastic deterioration" in the relationship was manifested on several levels: arrangements for Turkmeni gas had again become confused; RosUkrEnergo was being investigated for corruption; a previous agreement to refurbish transmission lines had been "abandoned;" Russia questioned the security of gas it stored in Ukraine following a disagreement in May, 2005; and pricing arrangements were again in disarray. Things worsened at the very end of 2005, when Gazprom suddenly demanded the 'European' price of $230/mcm. Kiev accepted the idea of European pricing but insisted on a lengthy phase-in, committing for 2006 to a price of $80/mcm, about one-third of what Gazprom was demanding. Then, at the end of December, "a major event" occurred "almost unnoticed" – Gazprom contracted to purchase an amount of Turkmeni gas that would leave none available to Ukraine. With a stranglehold on Ukrainian supply, and with demands that Kiev was refusing to meet, Putin offered a three-month delay in

[256] Condensed from Jonathan Stern, "The Russian-Ukrainian Gas Crisis of January, 2006." Oxford: Oxford Institute for Energy Studies, 2006, p.3-5. The cancellation is 'alleged' because it was never made clear – according to the OIES report, the likelihood of official invalidation is borne out by the fact that the eventual gas cut-offs generated no legal action from the Ukrainian side. Stern's report is likely the definitive review of this event – further citations in this section from pages 3 to 7 of this document unless otherwise noted.

[257] The inclusion of RusUkrEnergo followed a pattern established in the mid-90s when a predecessor, Itera, had been used to ship Turkmeni gas. The advantage was that Itera was responsible for managing barter deals and collecting payment from other buyers, relieving Gazprom of a major irritant. For a brief history of Itera, see IEA (2002: 116). The IEA's assessment of Itera – i.e., that "The appearance of independent companies like Itera – a substantial independent user of the pipeline network – is to be welcomed, subject to a full and transparent clarification of the relationship between it and Gazprom" – hints at the frequently but quietly expressed concern that Itera and its successors, Eural Transgas and, later, RosUkrEnergo, were not exactly operating with European-style transparency. Headquartered in Florida and strongly connected to Gazprom, Itera is referred to by Pirani (2007: 39) as "an opaque offshore ownership structure typical of Russian companies at the time." The role of the company is also touched on in Balmaceda (1998).

new pricing if Ukraine agreed to the new price. Yuschenko rejected the offer, and Gazprom turned off the taps on New Year's Day, 2006.

Figure 6.1 Gazprom Gas Flows to Europe (Source: Agence France-Presse)[258]



It is important to stress that Gazprom's main transmission lines to Europe were never closed; only the smaller lines that supplied the Ukrainian market itself were affected. The cut-off did not last, and the dispute was resolved within four days, but it resonated strongly throughout Europe, with customers experiencing drops in volume, allegedly from Ukrainian siphoning. Gazprom immediately boosted the volumes in the European lines, but this did not prevent unprecedented European shortages in the first two days of January. Hungary received 40 percent of its expected volume; Poland was

[258] Agence France-Presse, "Ukraine Warns EU Of 'Serious Gas Problems' In 10 Days," 3 January, 2009. Accessed 3 January, 2009, from: http://www.google.com/hostednews/afp/article/ALeqM5g7UPRr5TVVRjj9-aD9QADzhwUbEg

down 14 percent; Austria, Slovakia and Romania were down by 33 percent; Germany reported shortages but was not specific; and France reported a shortage of 25 to 30 percent.[259] The physical and commercial impact on Europe was minimal – by 4 January, all parties were reporting normal receipt of gas – but the political fallout was considerable.

The 2009 Russia-Ukraine Gas Crisis

The agreement that resolved the January 2006 crisis had four main components. Three of these were straightforward: all barter deals would be replaced by cash payments; Turkmeni exports would be purchased by Gazprom, and then re-sold to RosUkrEnergo, who would ship it to the Ukrainian border and resell it to Naftogaz. The fourth change centred on (unpublished) terms of supply/transit.[260] Relative stability ensued, but new drivers of conflict were building. Russia's urge to obtain European pricing from Ukraine resurfaced, this time heightened by skyrocketing oil prices. In 2006, the difference between European price and the price at which gas was sold to Ukraine was estimated to differ by $114.98/mcm; by 2008, the estimated gap was $147.69.[261] A second issue was that Yulia Timoshenko, elected in 2007 as Prime Minister, had promised to remove RosUkrEnergo and its Ukrainian partner, Ukrgaz-Energo, from the equation and establish direct purchase arrangements between Gazprom and Naftogaz. By early 2008, the state-owned Naftogaz had cancelled agreements with Ukrgaz-Energo.

[259] BBC News website, "Russia Vows To End Gas Shortage," 2 January, 2006. Accessed 2 February, 2010, from http://news.bbc.co.uk/2/hi/europe/4575726.stm.
[260] Simon Pirani, Jonathan Stern and Katja Yafimava, "The Russo-Ukrainian Gas Dispute of January 2009: A Comprehensive Assessment." Oxford Institute for Energy Studies, February 2009, pp.8-9.
[261] Ibid, p. 10. Price differentials are estimated because the only confirmed prices are those at which Gazprom sold gas to Ukraine.

In February, Timoshenko and Putin agreed to replace RosUkrEnergo – referred to by the Centre for European Policy Studies as "a monumental piece of murky non-transparency" – with a joint Gazprom-Naftogaz trading body, but the talks stalled in March, and Gazprom cut back pressure in the pipelines to Ukraine, as it had done previously, forcing Ukraine to concede a share of its industrial gas market to Gazprom-Sbyt, a Gazprom-owned trader.[262] Russia also extracted a new pledge from Kiev to accept the European netback price. This led to an October, 2008 agreement between Gazprom and Naftogaz that included debt repayment terms, timelines for payments on future deliveries, and further access to Ukrainian consumers by Gazprom.[263] It also included a renewed commitment to European pricing and to non-interference by Ukraine with European deliveries. Importantly, it did not include terms for 2009 pricing and transit.

What happened after that is difficult to disentangle from the resulting spate of assertions and counter-assertions. Disagreement arose over how much Naftogaz owed to Gazprom, and the dispute became public. With the 31 December contract expiry date approaching, and no new deal on the table, Gazprom's Alexey Miller announced possible increases to $400/mcm in November, and Putin warned Ukraine not to interfere in European supply. This led the Energy Charter Secretariat to remind Kiev of the obligations it had accepted when it ratified the ECT in 1998. Naftogaz had made a $1.52 billion payment on 30 December, 2008, but Gazprom argued that another $614 million "in fines and penalties" was due. Naftogaz refused, and offered to take the matter to international arbitration. It also threatened to "confiscate" gas in transit for Europe.

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[262] Centre for European Policy Studies, "What to do About Gazprom's Monopoly Power," February, 2006, p. 1.
[263] Ibid, p. 13.

Global financial difficulties had, by late 2008, had a dramatic impact on gas prices and on Gazprom coffers, driving it toward a hard position with Ukraine.[264] The Moscow Times cited a decline in the company's market capitalization from $350B in 2008 to $135B by February, 2010.[265] With some 20 percent – about $90 billion – of Moscow's inflowing budget revenue accounted for by gas exports, any constraints on Gazprom earning power were major concerns. This was even more pronounced at the time of the crisis because there is a lag of approximately six months in the 'pegging' of gas prices to oil; in January, gas prices were still relatively high, reflecting the apex of global oil prices of $147/barrel the previous July.[266] The Oxford report chides both sides for failure to learn from the 2006 experience that gas contracts should not have expiry dates in the middle of Winter.[267] But the Gazprom-Naftogaz contract did, and on 1 January, 2009, Russia again cut off deliveries to Ukraine.

The effects were far more severe this time, and both parties launched public relations efforts in Europe; Gazprom deputy CEO Alexander Medvedev held press conferences in a "whistle-stop tour" of London, Paris, Vienna, Berlin, Bratislava and Prague, narrowly missing a similar event in the Czech capital arranged by Yuschenko.[268] Gazprom also increased gas flows through Belarus and Turkey.[269] By 4 January,

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[264] Pirani et al (2009).

[265] Anders Aslund, "Gazprom Is the Essence of the Energy Curse," Moscow Times, 24 February, 2010. Accessed 24 February, 2010, from: http://www.themoscowtimes.com/opinion/article/gazprom-is-the-essence-of-the-energy-curse/400261.html.

[266] The Telegraph, "Russia And Ukraine Gas Crisis: The Frightened Bear Is Up For A Fight," 7 January, 2009. Accessed 5 February, 2010, from: http://www.telegraph.co.uk/news/worldnews/europe/russia/4163658/Russia-and-Ukraine-gas-crisis-The-frightened-Bear-is-up-for-a-fight.html.

[267] Pirani et al, pp. 17-18.

[268] See Agence France-Presse, "Ukraine Warns EU Of 'Serious Gas Problems' In 10 Days," 3 January, 2009. Accessed 4 January, 2009, from: http://www.google.com/hostednews/afp/article/ALeqM5g7UPRr5TVVRjj9-aD9QADzhwUbEg.

[269] Wall Street Journal, "Gazprom's Lessons: Europe has Failed to Learn From Them," 5 January, 2009. Accessed 7 January, 2010, from: http://online.wsj.com/article/SB123119965376855551.html#printMode.

Gazprom was claiming large-scale Ukrainian theft from pipelines and storage facilities. The impact on Europe built slowly – on 5 January, Agence France-Presse reported shortages of 5 percent in the Czech Republic, 11 percent in Poland, 10 to 15 percent in Bulgaria, and 30 percent in Romania.[270] Ukraine argued that the Gazprom-induced drop in pipeline pressure had to be corrected by the injection of gas from storage, and that it was entitled to do so. Then, on 7 January, all deliveries to Europe were cut off by Gazprom amid conflicting reports over how much gas Russia was actually shipping and how much was being diverted by Ukraine. As the OIES report put it:

> It is important to underline the unprecedented nature of this situation. Supplies to Europe had never been halted since the gas transit system was built in Soviet times, and even in 2006 the shortfalls in supplies to Europe resulted not from European supplies being completely halted, but from Ukraine being cut off and diverting a proportion of European volumes for its own use.[271]

As the shutdown continued, the EU arranged to insert observer groups comprising EU officials and representatives of "all the major continental European gas companies."[272] On 11 January the teams were deployed, but this had no effect on gas flows, with 13-17 January "spent in mutual recriminations" over Russian cut-offs and what Gazprom was referring to as Ukrainian "blockage" of the line.[273]

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[270] AFP, "Putin and Gazprom meet over EU gas supply," 5 January, 2009. Accessed 5 February, 2010, from: http://www.france24.com/en/20090105-putin-meet-gazprom-boss-discuss-gas-disputes-with-ukraine-russia.

[271] Pirani et al, p.22.

[272] A step allegedly prompted by Bulgarian and Slovak threats to re-start nuclear reactors that both countries, as part of their EU accession, had promised to decommission.

[273] The latter assertion turned out to be valid, as Ukraine had reversed the flow of the primary European transit line to allow it to ship stored gas from Western Ukraine to population centres in the east. Perhaps hoping to draw attention to this unusual development, Gazprom offered on 12 January to ship gas through the line, but Ukraine refused. Ibid, pp. 23-24.

Europe responded by backing Medvedev's idea of a 'mini-summit' in Moscow on 17 January, sending Energy Commissioner Andris Pielbags.[274] The EU was unusually blunt – "the gas must flow," argued a spokesman, adding that the EC would "regard this period as a test case for judging whether or not [Russia and Ukraine] are credible partners."[275] European firms offered to fund 'linepack' to re-pressurize the pipeline, but this turned out to be unnecessary – on 19 January Putin and Timoshenko agreed on terms, and by the following day deliveries had returned to normal levels.[276] A new 10-year agreement would phase in European price by 2011, and included volume quotas and "onerous" penalties for falling short on monthly take-or-pay provisions, which complemented the annual requirements.[277] In the interim, Kiev would pay some 20 percent less than the European price of roughly $450/tcm, while Gazprom would pay $1.70/tcm/100km for transit. EurActiv suggested that Gazprom had "won" in the dispute, achieving better terms than it had in 2008.[278] Timoshenko removed RosUkrEnergo as a seller of Russian gas, but conceded Ukrainian market share to Gazprom-Sbyt.

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[274] The Czech Republic, Armenia, Belarus, Kazakhstan, Moldova and Serbia also sent representatives.

[275] Comments by EC representative Johannes Laitenberger, quoted in British Broadcasting Corporation, "'Gas to Flow' After Moscow Deal," BBC News website, 18 January, 2009. Accessed 8 February, 2010, from: http://news.bbc.co.uk/2/hi/7834796.stm.

[276] There was some question in the Russian camp as to whether or not Timoshenko had a proper mandate from the President to negotiate the terms of this agreement. There had previously been disagreement between Yushenko and Timoshenko on the best way to approach the negotiation with Moscow, but when pressed, Yushenko's office issued the terse endorsement that she had "a full mandate at the talks. Otherwise, she would not be taking part in them." Reuters, "Russia And Ukraine Say Gas Deal Reached," Radio Free Europe/Radio Liberty, 18 January, 2009. Accessed 6 February, 2010, from: http://www.rferl.org/content/Russia_And_Ukraine_Say_Gas_Deal_Reached/1371486.html.

[277] Simon Pirani, "Preventing New Gas Wars," Moscow Times, 28 January, 2010. Accessed 8 February, 2010, from: http://www.themoscowtimes.com/opinion/article/preventing-new-gas-wars/398420.html.

[278] EurActiv.com, "Pipeline politics? Russia and the EU's battle for Energy," 1 December, 2008. Accessed 2 October, 2009, from: http://www.euractiv.com/en/energy/pipeline-politics-russia-eu-battle-energy/article-177579.

6.1.3 Aftermath of The Ukraine Crises

The energy security discourse that had been evolving since Putin assumed power drew considerable new impetus from the Ukrainian crises. For many, the Gazprom cut-offs represented a manifest threat that had only been potential to that point; Moscow therefore received the bulk of the blame, having demonstrated callous disregard for downstream users in mid-Winter, and 'proving' malign intent in Europe.[279] It was not suprising. Trepidation over Russian motives had been building for several years, but the difference, after 2009, was its expression outside think-tank publications and mainstream media, extending even into EU publishers like EurActiv.com:

> In January 2009, the full European Parliament discussed the latest Russia-Ukraine gas crisis. *Members from all sides agreed that Russia and Ukraine had forfeited their status as reliable gas suppliers…* [but] the puzzling part of the story is why Russia and Ukraine were not on the European Union's (EU) list of unreliable energy suppliers already – i.e. why weren't they placed there after the first 'gas war' in January 2006?[280]

Calls for a new European commitment to supply diversification and liberalization were ubiquitous throughout the post-crisis commentary, but the most tangible adjustment was a deal that the EU and Ukraine announced on 23 March that would see EU funding

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[279] Elitsa Vucheva, "EU Likely To Face One More Week Without Gas," EU Observer, 15 January, 2009. Accessed 16 January, 2009, from: http://euobserver.com/24/27416.

[280] Emphasis added. Anna Aseeva, "Re-Thinking Europe's Gas Supplies After 2009's Russia-Ukraine Crisis," EurActiv.com, 13 January, 2010. Accessed 7 February, 2010, from: http://www.euractiv.com/en/energy/thinking-europe-gas-supplies-2009-russia-ukraine-crisis/article-188857. The Economist similarly took both parties to task, but had particularly venomous comments for Russia – see "Energetic Squabbles: Russia Injects New Fizz Into The European Union's Continuing Debate Over Energy Policy," 15 January, 2009. Accessed 19 January, 2009, from: http://www.economist.com/world/europe/displaystory.cfm?story_id=12926521. This allusion to Ukrainian culpability in the crisis was part of a mixed record. Some commentors – the EU monitors inserted into the crisis, for example – "voiced sympathy" for Ukraine. Others, including an unnamed EU diplomat offered a more balanced view, arguing that while the Russian tactics had "backfired badly" and that Moscow had "overplayed its hand," Ukrainian actors had also "behaved stupidly and badly." See Economist, "Energetic Squabbles: Russia Injects New Fizz Into The European Union's Continuing Debate Over Energy Policy,"15 January, 2009. Accessed 19 January, 2009, from: http://www.economist.com/world/europe/displaystory.cfm?story_id=12926521.

of €2.5 billion to "upgrade" Ukrainian transmission lines. Despite a previous Gazprom estimate that such a job would require some $16 billion, this was viewed as "an unfriendly step" by Russia, one aimed at transferring the lines to European ownership. Moscow immediately protested its omission from the discussion, and argued that the deal threw the painfully-settled terms of the January agreement into question, despite assurances from Timoshenko that no transfer of ownership and control would occur.[281]

The question of who 'won' in the 2009 crisis has become no clearer. Ukraine certainly was not happy with the terms; President Yuschenko promised to accept the settlement, but called it a "bad deal." Furthermore,

> Within a week of the conclusion of the dispute, Yushchenko's staff reviewed the agreements with a view to renegotiating them, and the presidential website published a lengthy legal commentary, suggesting that Ukraine could renegotiate the agreements because they are 'discriminatory'.[282]

Things did not seem to work out any better for Gazprom, which in January of 2010 wrote off the gas it had been contracted to deliver to European buyers, estimated at some 4.5 bcm of gas worth roughly $1 billion: a substantial relaxation of European firms' take-or-pay obligations. Gazprom, though similarly bound by 'deliver-or-pay' provisions, has not

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[281] Comments drawn from "Russia's Foreign Ministry Criticizes EU-Ukraine Gas System Deal," RIA Novosti, 26 March, 2009. Accessed 8 February, 2010, from: http://en.rian.ru/world/20090326/120753547.html. The EU-Ukraine deal came on the heels of another announcement concerning the 'Eastern Partnership Program' of the EU, "which aims to improve relations with ex-Soviet republics (Armenia, Azerbaijan, Belarus, Georgia, Moldova and Ukraine) and similarly does not involve Russia directly." See Bruce Pannier, "EU-Ukraine Pipeline Agreement Piques Moscow," Radio Free Europe/Radio Liberty, 25 March, 2009. Accessed 8 February, 2010, from: http://www.rferl.org/content/EU_Ukraine_Pipeline_Agreement_Piques_Moscow/1516786.html.

[282] Both sets of quotes from Pirani et al (2009: 30).

been sued for compensation by European buyers, and claims *force majeure* in any event, continuing to place responsibility for the crisis on Ukraine.[283]

Finally, the economic crisis injured both sides. Ukraine will scramble to meet its contractual obligations to Gazprom and, indeed, has already received one piece of clemency from Putin who, in December of 2009, agreed to waive the penalty Naftogaz incurred in falling short on the monthly take-or-pay provisions of the new contract. With demand plummeting, and gas buyers cash-strapped in the recession, Naftogaz had to be bailed out by Kiev to pay its 2009 bills; the government, in turn, has been under-written by the International Monetary Fund (IMF). Hamstrung by "profligate" consumption and infrastructural degeneration, and dependent on payment from firms whose own revenues have plummeted amid a demand fall of 28 percent, the country is suspended in a series of Catch-22s, making it very likely that the IMF will be needed again.[284] Gazprom is also feeling the pinch – on top of the shortfall caused by the Ukraine crisis, European demand was, by the Summer of 2009, down an astonishing 32.2 percent from the previous year, a development with major implications for the company's balance sheet; as one report put it, "Gazprom, which just a short time ago acted as the Kremlin's cash cow, now finds itself increasingly stressed."[285] These conditions have also had a drastic effect on Russian production, which Gazprom and the Russian Ministry of Energy projected would not recover 2008 levels until 2012. The concern over where Gazprom would find the supplies

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[283] Ivan Vasilyev and Yelena Mazneva, "Gazprom Loses $1Bln in Write-Off for Europe," Vedomosti, 27 January, 2010. Accessed 8 February, 2010, from: http://www.themoscowtimes.com/business/article/gazprom-loses-1bln-in-write-off-for-europe/398245.html.

[284] Pirani, 2010. Estimated fall in Ukrainian industrial demand from "The Impact of Economic Recession and Financial Crisis on the Gas Industry," a symposium hosted by the Oxford Institute for Energy Studies at St. Anne's College, Oxford, U.K., on 17 September, 2009. Comments were made under Chatham House Rules and cannot be attributed.

[285] See Eurasianet.org, "Gazprom Squeezed by Central Asian Contracts," 23 March, 2009, accessed 11 January, 2010, from http://www.eurasianet.org/departments/insightb/articles/eav032409d.shtml .

to meet its European contracts – widely expressed by gas analysts in preceding years – has dimmed enough to put a stop to European urgings for new Russian investment upstream.[286] As one observer was motivated by the current conditions to ask, "can you imagine where Gazprom would be if they *had* invested?"[287] Finally, the fall in demand did not absolve European buyers of their own take-or-pay obligations, but in late 2009 there was speculation that Gazprom would restructure the current contracts to waive the penalties in exchange for volume and price commitments in the coming years.[288]

6.1.4 Influencing Europe: Penetration and Encirclement

While observers were naturally drawn to the Ukrainian crises, a parallel development received far less attention: Gazprom's establishment of new downstream connections in and around Europe. Downstream penetration began with Wingas in 1990, and continued for the rest of the decade, particularly in Eastern Europe, as discussed in Chapter 4. Since then Gazprom has taken this "strategy of downstream diversification" further, establishing "marketing subsidiaries, purchasing shares in local companies, and forming joint ventures with national partners in transport, distribution and trading."[289] Some observers focused more bluntly on the 'intent' of this strategy; the authors of an article subtitled *Should Europe Worry?* argue that:

> Gazprom has spent lots of money building additional export pipelines and buying up foreign assets in the downstream sector, especially distribution networks in European

[286] On the concern over Russian investment, see Finon and Locatelli (2008: 433).
[287] Oxford University, "The Impact of Economic Recession and Financial Crisis on the Gas Industry," comments made under Chatham House rules.
[288] "Gazprom Stands Behind Take Or Pay On Gas Contracts," RT, 28 October, 2009. Accessed 8 February, 2010, from: http://rt.com/Business/2009-10-28/gazprom-stand-take-pay.html.
[289] Finon and Locatelli (2008: 435).

countries. What Gazprom obviously wants is to control the whole chain of supply: from production to transportation and distribution.[290]

Locatelli suggests that such activity is not atypical; suppliers require a downstream presence to secure market shares and to "access" end-users. By acquiring shares in transmission and distribution companies, she adds, firms like Gazprom can sell their

Table 6.1 Gazprom Joint-Ventures in Europe to 2007[291]

Countries	Joint venture	Per cent of Gazprom	Nature of operations
Germany	Wingas (Wintershall/BASF)	50 since 2007	Transportation and sales
	WIEH (Wintershall/BASF)	50	Sales and marketing
Austria	GWH (with OMV)	50	Marketing and trading
Finland	Gasum (Fortum, E. ON Ruhrgas)	50	Distribution
	North Transgas OY	50	Transportation
France	Fragaz (GDF)	50	Distribution and trading
Greece	Prometheus Gas	50	Marketing
Hungary	Panrusgaz (Mol)	40	Marketing and distribution
	Borsodchem	25	Petrochemistry
	DKG-EAST Co. Inc	38	Marketing and trading
Italy	Promgaz (SNAM, Edison)	50	Marketing and distribution
Poland	EuroPolGaz (PGNiG)	48	Transportation (Yamal pipeline)
	Gaz Trading (PGNiG)	16	Marketing and trading, gas and LNG
Czech Rep	Gas-Invest	37,5	Marketing, distribution and trading
	Vemex	33	Trading
Slovakia	Slovrusgaz (E.ON)	50	Transportation and marketing
Switzerland	WIEE (Wintershall)	50	Marketing

[290] Jeronim Perovic and Robert Orttung, "Russia's Energy Policy: Should Europe Worry?" Spero News, 10 April, 2007. Accessed 10 April, 2007, from: http://www.speroforum.com/site/article.asp?id=8923. Very similar wording has been used elsewhere, e.g.: "One of [Gazprom's] ultimate goals … is to control the entire supply chain, without intermediaries, from the gas fields of Siberia to the stoves in European homes." Simon Schuster, "Gazprom's EU Ties Stumble on Reciprocity," Moscow Times, 17 July, 2007. Accessed 22 July, 2007, from: http://www.themoscowtimes.com/stories/2007/07/17/002.html.

[291] Table imported as intact image from Locatelli (2008: 249). Note Gazprom's Wingas share, which increased from 35 percent in 1994 to 50 percent minus one share; Gazprom exchanged this for a BASF/Wintershall stake in Yuzhno Russkoye, expected to provide gas for the Nord Stream pipeline.

product downstream "without having to compete with other gas producers …"[292] The initial posture of the EU seemed designed to facilitate this approach by Gazprom; reviewing the period 2000-2003, an EU Commission report cited "[a]ccess for Russian companies to the EU's internal energy market" as an "achievement" of the Euro-Russian energy relationship.[293] Gazprom took full advantage of the opening, as Locatelli demonstrates in the table, below, of Gazprom joint-ventures with European actors.

The company has been similarly active in acquisitions. Echoing Locatelli, Harks considers such cross-ownership an "excellent tool for enhancing energy security" because of its potential to create common interests and to reduce the likelihood of politically-driven intervention. However, he points out, the recent history of the Euro-Russian case suggests that nationalist thinking continues to limit the potential of cross-ownership to enhance security. National firms in Europe, he argues, continue to be protected by their governments; liberalization is still incomplete; and European regulators continue to be troubled by what they see as non-market behaviour (i.e., politically-driven) by the towering Gazprom, whose assets dwarf those of any potential European partner.[294]

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[292] Catherine Locatelli, "Gazprom's Export Strategies Under the Institutional Constraint of the Russian Gas Market," OPEC Energy Review, Vol. 32, Issue 3, p. 248.246-264

[293] Cited in Larsson (2007:181).

[294] Even the market value of the Euro giant E.ON Ruhrgas, he argues, is roughly 20 percent that of Gazprom. Enno Harks, "Transnational Cross-Ownership Schemes in Energy Sectors: A Tool for Increasing Energy Security," Working Paper FG 8, Stiftung Wissenschaft und Politik, German Institute for International and Security Affairs, August, 2006, p. 4. Accessed 12 February, 2010, from: http://www.swp-berlin.org/common/get_document.php?asset_id=3223. Such concerns did seem to deepen as the decade wore on. Rumours in early 2006 of a pending Gazprom bid for the British distributor Centrica initially generated positive feedback from the British government. But by mid-2007 there was "unease" in government circles over "the conduct of Gazprom and Russian authorities towards foreign investors in Russia and neighbouring states," a sentiment undoubtedly aided by the rejection of the ECT, and by the strong-arming of foreign oil firms in the Russian upstream – including British Petroleum. See R. Jones, "UK Govt Would Block Gazprom Move To Gain Major Stake In Energy Company – Report," AFX News, 20 May, 2007. Accessed 11 February, 2010, from: http://www.forbes.com/feeds/afx/2007/05/20/afx3739568.html.

Table 6.2 Gazprom Acquisitions in Europe to 2007[295]

Countries	Company
Austria	Gazprom will have right to sell directly to customers through subsidiary GWH and Centrex (25 per cent held by Gazprom)
Hungary	Acquisition of share in E.ON Foldag Storage and E.ON Foldaz and in regional gas and electricity suppliers as part of a deal with E.ON concerning its holdings in MOL
Italy	Possibility of acquisition of 10 per cent stake in ENIpower with direct sales of gas for electricity production
United Kingdom	Acquisition of share in gas distributor Pennine Natural Gas (PNG)
	Acquisition of gas distribution company NGSS (Natural Gas Shipping Services)
	Gazprom Marketing and Trading, Gazprom subsidiary enabling Gazprom to sell Russian gas directly in the UK
Estonia	Acquisition of share (37.5 per cent) in marketing and transmission company Eesti Gaas
Latvia	Acquisition of share (34 per cent) in marketing and distribution company Latvijas Gaze
Lithuania	Acquisition of share (30 per cent) in transmission and distribution company Stella Vitae
	Acquisition of share (37 per cent) in marketing and transmission company Lietuvos Dujos

Concern had also been building over the lack of reciprocally open investment terms from Moscow and, in 2007 and 2008, the European Parliament and various Commission working groups struggled to define a 'Gazprom Clause' for the third Gas Directive that would prevent Gazprom from buying infrastructure in Europe until European firms were allowed similar access in Russia.[296] Such efforts reflected

[295] Ibid, p. 250. Gazprom also executed an asset swap with the Netherlands' Gasunie in 2007, acquiring a 9 percent stake in the BBL pipeline linking the U.K. to the Netherlands in exchange for a similar share in the Nord Stream pipeline, a share that reduced those allocated to E.ON Ruhrgas and BASF. See "Gazprom Goes Dutch," Energy Tribune, 20 November, 2006. Accessed 11 February, 2010, from: http://www.energytribune.com/articles.cfm?aid=294&idli=3.

[296] The Commission ultimately failed to impose this clause on its membership. See Renata Goldirova, "EU Weakens 'Gazprom Clause' on Foreign Energy Investors," EUObserver.com, 13 October, 2008. Accessed 21 November, 2010, from http://euobserver.com/9/26914. Interestingly, this term has since acquired a very different meaning – today, it refers not to EU efforts to prevent Russian acquisitions in member states, but to importer commitments not to re-sell Russian gas to other members, a clear exception to the entire spirit

increasing EU dissatisfaction with the "one-off deals" – e.g., the Wintershall stake in Yuzhno Russkoye – that Russia *had* allowed; as one EU official put it, they were not "enough of a signal" and, if reciprocity were not "enshrined in law," Gazprom could "forget about accessing the downstream market." Unsurprisingly, the resolution was viewed in Russia as a "provocation," with one government official subtly threatening that rising domestic prices in Europe would eventually remove the incentive for Gazprom to deal with Europe at all.[297] The resolution seems to have been only partially effective – outright acquisitions by Gazprom have slowed since 2007, but this has not prevented those entities created prior to that from making acquisitions themselves, as evinced by the new positions that Gazprom Germania established in France, Switzerland, Austria, Italy and the Czech Republic through 2008 and 2009.[298] And when the Commission had a chance to equip the Third Directive with teeth via the Gazprom Clause, they faltered. The clause was watered down in the final document – due largely to German efforts, ostensibly – from a hard-edged item that effectively gave the EU an "investment veto" to a less stringent clause allowing bilateral approval of investments by foreign producers.[299]

Another early-2000s alarm bell was a series of Gazprom deals with alternative suppliers to Europe, e.g., a 2006 MOU with Algeria's Sonatrach. As it turned out, worries over the Algerian venture proved unfounded; it had fizzled by late 2007, and has not been rekindled. Discussions with Nigerian officials proved similarly unfruitful at first, but in June, 2009, Gazprom signed a $2.5B agreement with NNPC, the state oil firm, for a joint-

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of market liberalization. See, for example, EurActiv, "Commission Urges Bulgaria to Change Gazprom Clause," EurActiv.com, 15 November, 2010. Accessed 21 November, 2010, from http://www.euractiv.com/en/energy/commission-urges-bulgaria-change-gazprom-clause-news-499737.

[297] All quotes, Shuster, 2007

[298] Gazprom Germania website, "Company History," Accessed 12 February, 2010, from: http://www.gazprom-germania.de/en/company/company-history.html.

[299] EurActiv, "Energy Ministers Clinch Deal On Liberalisation," 13 October, 2008. Accessed 3 March, 2010, from: http://www.euractiv.com/en/energy/energy-ministers-clinch-deal-liberalisation/article-176279.

venture dubiously named 'Nigaz.' The agreement lays out plans to jointly build refineries, pipelines and power stations.[300] The Russian firm also created 'Gazprom Libya,' winning terrestrial and offshore exploration concessions.[301] This agreement, attributed to "the full deployment of the Kremlin's energy diplomacy toolkit," was sweetened by arms deals and a write-off of $4.5 billion in Libyan debt.[302] As one observer put it,

> We should begin to ask reasonable questions as to why the Kremlin is working so hard to establish close relationships with alternative suppliers of natural gas to Europe, using debt forgiveness and arms deals as a way to outbid international gas companies. We must be conscious of the potential political leverage that Gazprom's ownership of such assets provides to the Kremlin, and how and why the state could choose to exercise it.[303]

It is difficult to know whether these efforts represent the 'typical' gas firm thinking suggested by Locatelli or Harks, or whether Europe should be unnerved. Gazprom's actions are certainly problematic – if the Kremlin did wish to put a gas 'stranglehold' on Europe, such acquisitions would be a necessary step. It also contravenes a traditional respect for 'turf' among energy firms – as Walter Levy put it, energy actors need to accept "as a limiting consideration the basic interests of others" in international relationships because of the indisputable interest that gas, like oil, represents for states.[304] At the same time, though, Gazprom connections to the big European firms run deep; even

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[300] BBC News website, "Gazprom Seals $2.5bn Nigeria Deal," 25 June, 2009. Accessed 28 February, 2010, from: http://news.bbc.co.uk/2/hi/8118721.stm.

[301] For an interview with a Russian official on Gazprom Libya activity and planning, see "Russian NOCs abroad: Gazprom in Libya," Oil & Gas Eurasia, No. 9, September, 2008. Accessed 12 February, 2010, from: http://www.oilandgaseurasia.com/articles/p/105/article/995/.

[302] See "Russia Swaps Libya Debt For Deals," BBC News, 18 April, 2008. Accessed 12 February, 2010, from: http://news.bbc.co.uk/2/hi/europe/7353997.stm, and Robert Amsterdam, "Gazprom, Libya, and the Gas OPEC," 22 April, 2008. Accessed 12 February, 2010, from: http://www.robertamsterdam.com/2008/04/gazprom_libya_and_the_gas_opec_1.htm.

[303] Ibid.

[304] Walter J. Levy, Oil Strategy and Politics, 1941-1981, Melvin A. Conant, ed. Boulder, Co: Westview Press, 1982, p. 149.

the Libya deal included swaps with Italy's ENI.[305] Moscow has trodden heavily and given off a stream of alarming signals, but the jury will remain out on whether these reflect a malign desire for political control or a benign desire for market security.

6.2 EU Liberalization: The 2nd and 3rd Gas Directives

While the ink was still drying on the first Directive, and well before the ECT had failed in Europe, the EC was developing the second Gas Directive, 2003/55/EC, completing it in 2003, and abrogating the 1998 version.[306] Upon its release, the EU Competition Commissioner initiated an inquiry into the progress of liberalization; the final report, tabled in 2007, lamented the continuing presence of barriers to energy competition in Europe, "including excessive market concentration, vertical foreclosure, lack of market integration, lack of transparency and distrust in price formation mechanisms." This led, finally, to a push for a third Gas Directive which has moved forward in fits and starts since its introduction in September, 2007, resulting in what has been called a 'compromise' version in 2008.

6.2.1 Negotiation to Regulation: The 2nd Directive and Beyond

As discussed in Chapter 4, the first Directive obligated European states to enable consumers to choose their gas supplier, which required states to facilitate this within their national markets by 2004. Execution of this obligation generally fell short continent-wide, vindicating the EU for repealing the 1998 Directive and replacing the

[305] "Russian NOCs abroad: Gazprom in Libya."
[306] Interestingly, the Commission tried and failed, as it had in the 90s, in integrating electricity and gas legislation into a single package.

negotiated/regulated TPA option in its more stringent successor. The principal changes in the second Directive were:

- Removal of Member States' option for negotiated TPA on gas transmission and distribution;[307]
- Enhanced unbundling requirements in five areas beyond the accounting unbundling of the first Directive: legal, operational, personal and informational.[308]
- Establishment by each Member State of a National Regulatory Authority to be "wholly independent of the interests of the gas industry."[309]
- Member State designation of Network (or Transmission) Service Operators for major transmission lines, and transparent conditions for access and pricing by third parties.

The requirement for designated Transmission Service Operators (TSOs) is the most decisive departure from the first Directive. Member States are to designate – or are required to compel domestic firms owning "transmission facilities" to designate – *new* companies to "operate, maintain and develop under economic conditions secure, reliable and efficient transmission," and to "refrain from discriminating between system users or classes of system users."[310] Four new levels of unbundling flow from this requirement:

- *Legal Unbundling*: the new TSOs can remain subsidiaries of companies involved in production or supply, but cannot [be] parent companies. The objective is to create conditions "for the development of separate commercial interests and corporate cultures" for the fair and transparent transit of gas by other firms through existing pipeline systems.[311]

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[307] This option was retained for gas storage, which had been allowed to remain under monopoly conditions in the first Directive.
[308] These unbundling 'labels' are drawn from Bertrand Malmendier and Jörg Schendel, "Unbundling Germany's Energy Networks," Journal of Energy & Natural Resources Law, Vol.24, No.3, 2006, pp. 370-379.
[309] Article25, Directive 2003/55/EC Of The European Parliament and of the Council of 26 June 2003, concerning common rules for the internal market in natural gas and repealing Directive 98/30/EC.
[310] Articles 8 (1)(a) and (1)(b), 2003/55/EC.
[311] Malmendier and Schendel, p. 370.

- *Operational Unbundling*: to "safeguard the independence of the [TSO] from other units of the vertically integrated undertaking," TSO managers are to be administratively separate – i.e., "free from the influence of the parent company" – to prevent favouratism in the allocation of pipeline access.[312]

- *Personal Unbundling*: TSO managers "may not participate in the company structures" of parent firms, and their relationship with the parent is to be structured in such a way that their "professional interests" still allow them independent decision-making ability.[313]

- *Informational Unbundling*: information about other firms using the network is to remain confidential, i.e., including the information from gas buyers that could be "sensitive for the markets on which they operate," and which could provide an advantage to competing firms or the company that owns the pipeline.[314]

Malmendier and Schendel describe this "unbundling regime" as "ambitious and challenging," requiring firms to "rearrange their corporate and management structures, articles of association, employment contracts, computer systems and accounts." However, the authors also discuss the delicate line between EU willingness to compel the large firms to go to this trouble on one hand, and the need to recognize the rights of firms and shareholders on the other. Whether this will constitute EU 'control' over the firms is debatable, but there is little doubt that the 2003 Directive represented a more intrusive step into national gas arrangements than its 1998 predecessor.

Unfortunately for the EC, this achievement did not translate into the real-world change that Brussels was hoping for. States continued to lag behind the targets established in the Directives, leading to increasing frustration and, eventually, to the exercise of EC enforcement powers.[315] In late 2005, the Commission launched an inquiry

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[312] Ibid, 372.
[313] Article 9(2)(a) and (2)(b), 2003/55/EC.
[314] Malmendier and Schendel, p. 377.
[315] By 2005, Germany had managed to open its markets for 7% of its industrial and institutional users, and fewer than 2% of household users. Italy had managed slightly better, opening for 30% and 35%, respectively. See "Panorama 2006: A Look at the Liberalization of Gas Markets in Europe," Report by the Institute Francais Petroles. Accessed 20 July, 2008, from: http://www.ifp.com/information-publications/notes-de-synthese-panorama/panorama-2006/la-liberalisation-des-marches-gaziers-en-europe.

into energy sector progress, but before the inquiry was complete, it directed anti-trust investigators to raid the offices of E.ON, Gaz de France, RWE and others in Germany, France, Italy, Austria, Belgium and Hungary.[316] The inquiry's final report identified "serious shortcomings" in European gas markets, citing excessive concentration, the prevention of new market entrants, insufficient intra-EU market integration, insufficient transparency, "inadequate" unbundling, the inappropriate use of long-term downstream contracts, and the general favouring of incumbent firms.[317]

These findings only encouraged the EC to push a third energy package. Tabled on 19 September, 2007, the document placed less emphasis on the inner workings of TPA – which, after the first two Directives, it appears to take as a given – than on unbundling. The draft proposals for the third Directive had offered states the choice between mandatory divestiture of pipeline networks and establishment of Independent System Operators, but this was opposed by Germany, France, and six other member states; these actors instead pushed for a 'Third Way' that, after more than a year of difficult

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[316] Euractiv.com, "Commission clamps down on energy giants,"18 May 2006, http://www.euractiv.com/en/energy/commission-clamps-energy-giants/article-155405, accessed 8 August, 2009. The EU contended that the two companies' 1975 side-agreement on the MEGAL pipeline (which would carry Russian gas through Germany to France) featured a mutual pledge not to try to sell gas in each other's territories. This was legal at the time, but after the first Gas Directive was passed, the parties continued to apply the terms of the side-agreement, a practice that led the EU to levy fines of €553M on each firm. The move was lauded by EU Competition Commissioner Neelie Kroes as sending "a strong signal to energy incumbents that the Commission will not tolerate any form of anticompetitive behaviour," on the grounds that "[m]arket sharing is one of the worst types of antitrust infringement." For the formal report on the ruling, see Eur-Lex, "Summary of Commission Decision of 8 July 2009: Relating to a proceeding under Article 81 of the EC Treaty (Case COMP/39.401 — E.ON/GDF) (notified under document C(2009) 5355 final)." Accessed 3 March, 2010, from: http://eur-lex.europa.eu/Notice.do?mode=dbl&lng1=en,en&lang=&lng2=bg,cs,da,de,el,en,es,et,fi,fr,hu,it,lt,lv,mt,nl,pl,pt,ro,sk,sl,sv,&val=502543:cs&page=&hwords=null. A less legalistic interpretation can be found in Europa, "Antitrust: Commission Fines E.ON and GDF Suez €553 Million Each for Market-Sharing In French And German Gas Markets," Press Release, IP/09/1099, 8 July, 2009. Accessed 4 March, 2010, from: http://europa.eu/rapid/pressReleasesAction.do?reference=IP/09/1099&format=HTML&aged=0&language=EN&guiLanguage=fr

[317] European Commission, Directorate General for Competition, "Sector Inquiry," Departmental website, accessed 18 February, 2010, from: http://ec.europa.eu/competition/sectors/energy/inquiry/index.html.

negotiation, culminated in a compromise final version in April of 2009 that handed concessions back to the objecting states. This version was formally adopted by the European Council on 25 June, 2009, with Member States expected to harmonize national legislation with the document by 2011.[318]

6.3 THE TRANSMISSION COMPANY: WHITHER FROM HERE?

It will be years before the impact of European liberalization on continental transmission companies is fully understood. As we have seen, the exemption mechanism has mitigated the effects of new EU energy legislation, but liberalization has definitely moved forward, and it has had an effect on competition *within* states, if not necessarily on German hegemony within the NGR. In the meantime, the obvious challenge for private industry is to protect profit levels while making whatever adjustments are required to enable them to function viably in the future. In some cases this will mean seeking exemptions from the gas directives; in others, it will suggest structural adjustments, or the reallocation of capital to protect shareholder interest.

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[318] The new document left Member States with three unbundling choices. They could leave firms that already owned transmission assets to continue to fill the role of transmission system operator, provided that comply with the 'personal' and 'operational' unbundling terms of the 2003 Directive, i.e., those separating individual TSO managers from the parent firm.See in particular Article 9(1b), (1c) and (1d), Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009, concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC2008/55/EC. The second option, articulated in Article 9(8)(a) and (8)(b), allows states to designate "an independent system operator [ISO] upon a proposal from the transmission system owner," creating a "candidate operator" that, despite the formal ownership and financing of the parent firm, would have to demonstrate the same managerial separations of 9(8), and to be certified by the relevant National Regulatory Authority. The ISO would facilitate liberalization by operating pipelines according to the principles of non-discrimination, with responsibility for: "… granting and managing third-party access, including the collection of access charges and congestion charges, for operating, maintaining and developing the transmission system, as well as for ensuring the long-term ability of the system to meet reasonable demand through investment planning." See Article 14(4), 2009/73/EC. The final option for Member States is to create an Independent Transmission Operator (ITO), an option that "preserves integrated supply and transmission companies but compels them to abide by certain rules to ensure these two sections of the company operate independently in practice." Unlike the ISO, an ITO would not answer to the National Regulatory Authority, but to a Supervisory Body composed of representatives from the parent firm, "third party shareholders," and "members representing other interested parties such as employees of the transmission system operator." Article 20(2), 2009/73/EC.

All of these strategies have been employed. The adjustments that we have seen include privatization, merger, and divestiture. To take privatization first, there has been since the early 1990s a general trend among continental transmission companies toward a scaling back of state shares in what had been, in many cases, exclusively state-owned companies. In Holland – the complex administration and cross-ownership of the gas trade will be recalled from Chapter 3 – Dutch State Mines (DSM), which had held a 40 percent stake in Gasunie, was privatized in 1989. Following a series of early steps toward liberalization in the early 2000s, Gasunie itself was split in 2005 into a transmission company (NV Nederlandse Gasunie) to be "fully owned by the State," and a trading company (Gasunie Trade & Supply), which would retain the same ownership of the original Gasunie by the state, Esso, and Shell.[319] In Italy, SNAM has also been partly privatized, though not to the same extent as the Spanish firm REPSOL. Even Norway's Statoil was partially privatized between 2001 and 2006, and renamed Statoil ASA in an arrangement that left the state with a 62.5 percent share. Gaz de France remained 100 percent owned by the state until the 1990s, when it sold off 20 percent of its stake. It operated under this structure until 2007, when a planned merger with Suez S.A., which would turn the new company into the world's second-largest utility, required an alteration of French law; this allowed the company to reduce its state-owned share to 35 percent.[320] Privatization was never an issue in Germany, but the 2003 merger between Ruhrgas and

[319] Global Gas Historical Network, "The Dutch Natural Gas System." Accessed 24 February, 2010, from http://www.gashistory.org/Dutch.html.
[320] Reuters, "France Publishes Gaz De France Privatisation Decree," 20 December, 2007. Accessed 24 February, 2010, from: http://www.reuters.com/article/idUSPAC00903520071220.

the electricity giant E.ON. was an enormous development, creating a company that, in 2005, earned some €7,407M *in net profit*.[321]

Divestiture is likely to be more evident in the coming years as states align domestic law with the third Gas Directive, but it will not be as prevalent as might have been expected before 'third way' unbundling was negotiated into the third Directive. Thus far, few firms have taken that path; the most high-profile gas divestitures to date have been the 2007 move by Shell and Exxon-Mobil to sell off transmission assets – to Gasunie – and the 2008 decision by the German firm RWE to offload its 4,000 km of domestic pipeline as a means to settle an anti-trust case filed against it by the EU. This, of course, highlights an interesting aspect of gas industry divestiture: the very high degree of asset-specificity in gas infrastructure means, first, that assets cannot be used for any other purpose and, second, that the only capable and interested buyers will be other energy firms. In 2002, for example, when the French government privatized the national gas transport network, it was bought by Gaz de France – itself still mainly public at the time – and the energy firm TotalFinaElf.[322]

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[321] E.ON figure drawn from the company website; accessed 24 February, 2010, from: http://www.opesc.org/fiche-societe/fiche-societe.php?entreprise=EON. Figures on Ruhrgas profits have always been notoriously difficult to find. A 2001 source suggests that, in 2000, Ruhrgas generated a pre-tax profit of €694M. Information accessed 24 February, 2010, from: http://www.bp.com/genericarticle.do?categoryId=2012968&contentId=2014392. In comparison, the annual reports from Wingas were always far more transparent.

[322] On the RWE case, see Reuters, "EU Exec Accepts RWE's Grid Sale In Antitrust Case," 18 March, 2009. Accessed 24 February, 2010, from: http://www.forbes.com/feeds/afx/2009/03/18/afx6181044.html. On the Shell/Exxon-Mobil/Gasunie transaction, see "Shell and ExxonMobil Divest from German Gas Pipeline Assets," News Releases, 23 November, 2007, Shell company website. Accessed 24 February, 2010, from: http://www.shell.com/home/content/media/news_and_library/press_releases/2007/divestment_pipeline_assets_23112007.html. On Gaz de France Suez, see Commission de Régulation de l'Energie (CRE – France), "2008 National Report and Indicators," July, 2009. Accessed 21 February, 2010, from: http://www.energy-regulators.eu/portal/page/portal/EER_HOME/EER_PUBLICATIONS/NATIONAL_REPORTS/National%20Reporting%202009/NR_En/E09_NR_France-EN-Summary.pdf.

6.4 A TALE OF TWO (THREE?) PIPELINES

A ubiquitous element in the gas security discourse, and a key development in the 2000s, is the planning of new pipeline projects. Two stand out: the Nord Stream and the Nabucco pipelines. Nord Stream, originally a joint-venture of Gazprom, E.ON-Ruhragas and Wintershall, will connect Russia's Yamal fields to German markets, running under the Baltic Sea between Vyborg in Russia and Griefswald in Germany. The project is generally viewed as a bypass of Ukraine but, since it similarly bypasses other states en route to Germany, it has taken on other meanings as well. Nabucco, on the other hand, does not involve Russia or Gazprom; it reflects a deliberate EU effort to diversify by creating a major supply line that crosses no Russian territory en route from Eastern Turkey to Southeast Europe. This initiative has generated considerable Russian ire; as former IEA Director Claude Mandil put it, "[i]f someone is always saying that they have to build Nabucco to save themselves from Gazprom gas, [Russia] will have a single goal – to do anything necessary to foil the project."[323] The Russian response has been a separate pipeline, *Southstream*, slated to run under the Black Sea to Bulgaria or Romania. These projects' rationales, their impact, and their progress, are discussed in this section.

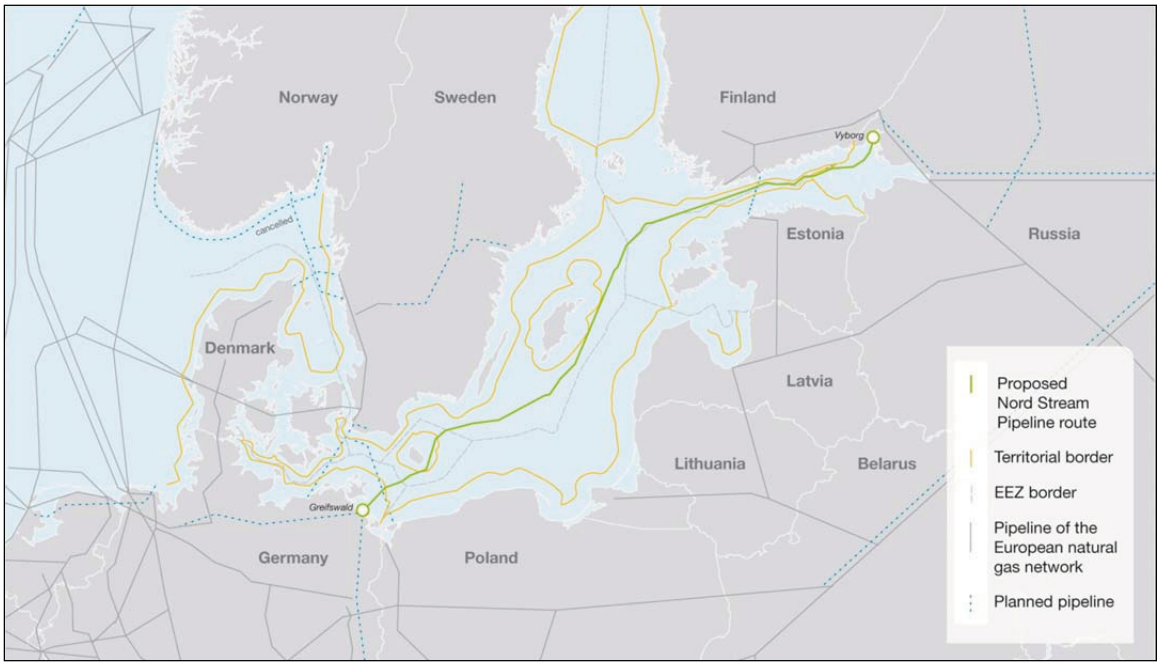
6.4.1 Nord Stream

Originally named the North European Gas Pipeline, Nord Stream was first conceived by a Russo-Finnish joint venture to deliver gas to Scandinavia and the UK. But the Finnish party "changed business strategy" in 2001, leading Gazprom to seek ties with

[323] Alexander Gabuev, "No Nabucco Without Russia: A French Expert Speaks on Energy Relations Between the EU and Russia," Interview with Claude Mandil, Kommersant, 24 September, 2008. Accessed 1 December, 2008, from: http://www.kommersant.com/p1030515/r_1/EU_Russia_energy_policy/.

German firms instead.[324] A new joint-venture was established in September, 2005 – Nord Stream AG – that allocated 51 percent of the new interest to Gazprom, and 24.5 percent each to E.ON-Ruhrgas and Wingas. In 2008 this changed, as Gasunie came onboard and obtained a 9 percent share, reducing E.ON and Wingas to an even 20 percent each. In early 2010, it changed again, with Gaz de France Suez securing 9 percent, again at the German firms' expense.[325] Gas for Nord Stream was originally intended to come from the

Figure 6.2 Nord Stream Pipeline Route (Source: Nord Stream AG)



offshore Shtokman field, but will now come from Yuzhno-Russkoye field in western Siberia. Construction on the dual-line project will follow the 1,200-km Vyborg-

[324] Stern, The Future of Russian Gas and Gazprom (2005: 121) and Nord Stream AG company website, "Company History," accessed 22 February from http://www.nord-stream.com/en/our-company/company-history.html.

[325] Reuters UK, "GDF Suez, Gazprom sign Nord Stream Pipeline Deal," 1 March, 2010. Accessed 3 March, 2010, from: http://uk.reuters.com/article/idUKLDE62016F20100301?pageNumber=2&virtualBrandChannel=11700.

Griefswald route described earlier, and will be carried out by sub-contractors.[326] Nord Stream has always been controversial. Russia will be able to divert gas supplies currently traversing Belarus and Poland and, far more pertinently, Ukraine, a reality creating mixed feelings across the EU. Poland's ire is understandable, particularly if the destination clauses of Russian contracts are rigid enough to preclude an eastward flow of gas from Germany; in the absence of such an option, Poland's status as an EU Member State will not palliate its vulnerability to Russian control of the Yamal taps. There is also concern that the project is less an EU-Russia one – like Yamal, Nord Stream is an approved TEN-E project eligible for EU funding – than a bilateral deal to provide supply diversification and, hence, security for Germany but not necessarily for anyone else, thus aggravating intra-EU tensions.[327] Matters were not helped by the fact that former Chancellor Gerhardt Schroeder chairs the company's Shareholders Committee, or that the pipeline will make landfall in Mecklenburg-Vorpommern, the electoral district of the current Chancellor, Angela Merkel. Furthermore, the company's registration in Switzerland has created a certain – and certainly deliberate – lack of transparency.

The assertion that Nord Stream's projected volume – estimated at some 55 bcm/year – in tandem with the South Stream project, "by far outstrips the expected increase in demand for gas in Europe" lends credence to the notion that this is more a

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[326] The first pipeline bids were accepted in 2007, shared between Germany's Europipe (75 percent) and the Russian firm OMK (25 percent); the same two parties bid successfully for the second, parallel line in late 2009, and were awarded 65 and 25 percent, respectively, with Japan's Sumitomo securing the remaining 10 percent in January, 2010. The project has been hampered by delays that have caused the original target date of completion to be pushed back to 2012 but, in February of 2010, the final political hurdle was cleared when Finnish environmental authorities approved the project.

[327] One observer argued that Nord Stream served four objectives: "to limit Russia's reliance on transit across Central Europe; to deepen West European dependence on Russia; to generate disputes between Germany and Poland; and to marginalize the Poles and Baltics within the EU by depicting them as incorrigible Russophobes." See Janusz Bugajski, "Moscow's Eurasian Alternative," St. Petersburg Times, 3 April, 2007. Accessed 3 April, 2007, from: http://www.sptimes.ru/index.php?action_id=2&story_id=21198.

political project than a commercial one, but as always, the distinction between the two is untidy. Few would argue that two Ukrainian crises do not demand concrete alternatives, and there is nothing in the word 'political' that absolutely implies malign intent – it is an equally 'political' motive for Gazprom/Russia to seek stable delivery arrangements for the sake of its wider relationships in Europe. But the commercial front comes with an interesting twist – in the second Gas Directive, 'upstream pipelines' were designated as a function of production, not transmission, which meant that *unbundling requirements did not affect lines outside the EU border*. The fact that Nord Stream gas will not enter German transmission lines until it lands in Griefswald therefore has two intriguing effects. First, the corporate structure of the Nord Stream consortium will be unaffected by EU gas legislation, however monopolistic, opaque or ultra-lucrative it might become.[328] Second, since it will be delivered through "major new gas infrastructure," Nord Stream gas will be exempt from the TPA and other requirements of the EU gas directives.[329]

6.4.2 Nabucco

Nabucco, a €7.9B, 3,300-km pipeline proposed and spearheaded by the EU has also engaged the Energy Directorate's regulatory exemption process, but the similarity

[328] Malmendier and Schendel (2006: 366).

[329] The same is not true of the terrestrial pipelines that will connect to Nord Stream – in Germany, these are the OPAL (Griefswald to Obernau) and NEL (Griefswald to Achim) lines – but even here there is room for exemption. German regulators did inform Nord Stream AG in 2007 that they would not approve OPAL and NEL unless it allowed TPA, leading Wingas to withdraw its application for examption, form a daughter company – OPAL NEL TRANSPORT GmbH – in 2008, and immediately re-apply. This time, Germany's national regulatory authority, the Bundesnetzagentur, *did* approve an exemption from network access (TPA), "rates regulation" and unbundling, effectively authorizing a 25-year monopoly for OPAL. It did not approve similar exemption for NEL, however, on the grounds that while OPAL connected to transmission lines in the Czech Republic and would therefore make a "clear contribution to gas supply security in Europe," NEL began and terminated in Germany. Having received official notification of the decision from the German regulator in March of 2009, the EC Directorate General for Energy has not yet ruled on the compatibility of the German decision with EU competition law. Federal Network Agency, "Federal Network Agency Grants Partial Exemption for OPAL Pipeline," Press Release, 25 February, 2009. Accessed 23 February, 2010, from: http://www.bundesnetzagentur.de/media/archive/15650.pdf.

ends there – where Nord Stream will link Germany and Russia directly, Nabucco proposes to span five countries. Drawing Iranian and Azeri gas from feeder lines in eastern Turkey, the pipeline is planned to proceed into Bulgaria, Romania, Hungary and Austria, and will carry some 31 bcm/year (to Nord Stream's 55 bcm). The origins of the project date to 2002 discussions between Austria's OMV and Botas in Turkey; it soon grew to include Bulgargaz in Bulgaria, Romania's Transgaz and the Hungarian firm MOL. An EU-subsidized feasibility study was concluded in 2003, and the parties

Figure 6.3 Nabucco Pipeline Route [330]

embarked on a complex negotiation that included: a formal joint-venture agreement that created Vienna-based Nabucco Gas Pipeline International GmbH in 2005; myriad

[330] Source: Nabucco Gas Pipeline International GmbH. Accessed 23 February, 2010, from http://www.nabucco-pipeline.com/project/project-description-pipeline-route/project-description.html.

"unresolved technical, legal, economic and financial" challenges; national regulatory approvals in each state; and, in 2009, an inter-governmental agreement involving all five countries, providing the legal framework that encompasses the entire pipeline.[331]

Like Nord Stream, Nabucco has been controversial. As Nord Stream would circumvent Poland, Nabucco will very deliberately circumvent Russia, a bold step designed to further EU supply diversification. There has also been concern over the compatibility of the energy security 'driver' and the economics of gas transportation. The EU has limited its fiscal support to help in arranging loans on favourable terms from the European Bank for Reconstruction and Development that account for some 3 percent of the project's total costs, and adding another €200M in March, 2010. Moreover, from the start, there have been problems in securing agreements for the actual gas that would flow through Nabucco – a development made worse by Russia's 2008 deal to sew up Turkmeni gas exports, by the war in Georgia, and by ongoing Western rancour with Iran. Finally, the supply difficulty has been augmented by questions about demand in the wake of the economic crisis – as one observer put it in September of 2009, "[a]t least, when it was conceived, you could see demand for [Nabucco gas]. You couldn't see supply for it, but you could see demand for it. But now you can't see demand *or* supply for it."[332]

Russia has discouraged the Nabucco project since the 2005 intergovernmental agreement made it start to look like a reality. In 2007 Moscow convinced the Hungarian leadership, including then-Prime Minister Ferenc Gyurcsany, a former Communist Party

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[331] Condensed from information on OMV company website. Accessed 23 February, 2010, from: http://www.omv.com/portal/01/com.

[332] Comments recorded during "The Impact of Economic Recession and Financial Crisis on the Gas Industry," a symposium hosted by the Oxford Institute for Energy Studies at St. Anne's College, Oxford, U.K., on 17 September, 2009. Having been conducted under Chatham House Rules, comments cannot be attributed to specific individuals or organizations.

leader in Hungary, to eschew Nabucco in favour of an extension of Russia's Blue Stream pipeline – which transmits gas from Russia into Turkey and which would essentially duplicate Nabucco's route – into Hungary, promising to make Hungary a regional hub for gas distribution, undoubtedly with the assistance of Gazprom and its new holdings in the Hungarian transmission and distribution firm, MOV.[333] Putin took a similar tack in Austria, signing an inter-governmental agreement in Vienna and establishing a new storage/distribution joint-venture in the country, despite the fact that OMV had been the original driver of Nabucco. Later in 2007, Russia altered its approach; at the very end of his presidency, Putin replaced the idea of Blue Stream extension with an entirely new idea, the South Stream pipeline, which is proposed to enter Bulgaria from across the Black Sea, and onward into Southern and Southeast Europe.

Throughout these discussions, Russian agility contrasted with the ponderous performance of the EU. Brussels remained enthusiastic in principle but lukewarm on financing, and Nabucco's lingering supply questions, coupled with new viability doubts after the 2008 Russian incursion in in Georgia, made it seem less and less likely that construction would ever be started. Moreover, the supply question grew in importance as contracts remained unsigned – as the Hungarian Prime Minister put it, the problem with Nabucco "is that we cannot see when we will have gas from it … you can only heat the apartments with gas and not with dreams."[334] Even EU faith wavered, with the European Parliament debating an internal proposal to invite Russian participation in the pipeline in

[333] Judy Dempsey, "Hungary Chooses Gazprom Over EU: Budapest Decides Extending a Pipeline Beats Bloc's 'Dream'," International Herald Tribune, 12 March, 2007. Accessed 21 March, 2007, from: http://www.iht.com/articles/2007/03/12/news/hungary.php?page=1.
[334] Ibid.

early 2009.[335] But the second Ukrainian gas crisis in January, 2009, reaffirmed the supply security argument, coming to a head in what would otherwise have been an unlikely place. Throughout early 2009, Putin had been pushing Bulgarian President Georgi Parvanov to accept terms for South Stream in which the new pipeline would use existing Bulgarian infrastructure to lower costs. This rankled with Bulgaria, whose rejection of those terms led Putin to a last-minute boycott of an energy security summit in Sofia in April, 2009, where Parvanov openly stated his country's support for both South Stream *and* Nabucco.[336] This crucial 'defection' paved the way for the five states to sign another inter-governmental agreement, in July, 2009, establishing the legal framework for the project. This enabled the participants to begin work on domestic ratification, which was expected to be completed by December, 2009. As of late February, 2010, though, only Bulgaria and Hungary had fully ratified the 13 July agreement.[337]

2010 was widely flagged as a turning point for the project. Supply contracts are expected to be signed, and financing needs to be found to address the ludicrous price tag.[338] But even if construction does start in 2011 as planned, Nabucco gas cannot be expected to flow until 2015. Meanwhile, Gazprom is pressing ahead with South Stream,

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[335] EurActiv.com, "EU Debates Inviting Russia To Join Nabucco," 2 February, 2009. Accessed 3 February, 2009, from: http://www.euractiv.com/en/energy/eu-debates-inviting-russia-join-nabucco/article-179060.

[336] The declaration was all the more surprising given a scheduled meeting in Moscow the following day between Putin and Parvanov's Prime Minister, Sergey Stanishev. In Moscow, Stanishev reiterated his country's support for South Stream, and Putin emphasized that agreement was imminent. Agence France Presse, "Russia, Bulgaria close to deal on pipeline: Putin," Sydney Morning Herald, 29 April, 2009. Accessed 23 February, 2010, from: http://news.smh.com.au/breaking-news-world/russia-bulgaria-close-to-deal-on-pipeline-putin-20090429-am6p.html.

[337] Similar incompletion is evident in each state's NRA submissions to the EC Energy Directorate; as of February, 2010, NRA decisions from Bulgaria, Romania and Austria had been reviewed by the Directorate which, in each case, issued instructions for modification of the decisions. This backing and forthing is exemplified in the EC decision on the Bulgarian exemption request, which can be viewed at: http://ec.europa.eu/energy/infrastructure/infrastructure/gas/doc/2009_exempt_nabucco_bulgaria_en.pdf. Accessed 24 February, 2010.

[338] Reuters, "Update 1- Nabucco Pipeline Cost Rises to 7.9 bln Euros," 29 May, 2008. Accessed 24 February, 2010, from: http://in.reuters.com/article/oilRpt/idINL2911967120080529.

signing its own agreement in Romania in early 2010. However, it has had its own troubles, mainly in Bulgaria, increasingly "seen by Moscow as a problematic partner" in the wake of its Nabucco ratification, to the point where Russia is considering alteration of the route to bypass Bulgaria altogether.[339] Amazingly, South Stream was endorsed by the EU in March of 2010 when the new Energy Commissioner, Gunther Oettinger, announced – in Bulgaria, ironically – that the EU "was ready to back" South Stream, and that the two pipelines were "complementary."[340]

Still, politically and commercially, all of these projects are in some degree of limbo, and massive reductions in European gas demand for 2010-2012, continuing global economic difficulty, domestic ratification issues and Commission exemption questions will not help the matter. Still, because the geopolitical context – and the energy security imperative to which it is inextricably linked – has not changed in any decisive way, crucial drivers of these projects remain, i.e., the urges for supply diversification, transit reliability and market security. Nord Stream is clearly the furthest along – in February, 2010, the first sections of undersea pipe were delivered from Germany to a marshalling yard in Sweden.[341] Construction of the actual pipeline began in the Spring of 2010, and by February, 2011, two of three sections in the first of the twin lines had been completed, an accomplishment involving some 83,300 segments of pipe linked over a distance of

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[339] EurActiv, "Gazprom's South Stream: Romania in, Bulgaria Out?" 19 February, 2010. Accessed 24 February, 2010, from: http://www.euractiv.com/en/energy/gazprom-s-south-stream-romania-bulgaria-out-news-263855.

[340] Valentina Pop, "EU Splashes Out €2.3 Billion On Anti-Gas Crisis Projects," EU Observer, 5 March, 2010. Accessed 5 March, 2010, from: http://euobserver.com/9/29611.

[341] Nord Stream AG, "EUPEC Starts Transhipments Of Pipes Destined For The Nord Stream Pipeline To Slite, Sweden," 12 February, 2010. Accessed 24 February, 2010, from: http://www.nord-stream.com/en/.

1,000 kilometres.[342] Still, the overall dynamics suggest that comments made by a reporter in 2009 still have considerable relevance:

> For the time being, Nord Stream, South Stream, and Nabucco are no more than largely unrealized projects. The pipeline game has yet to be resolved, and whether the European summit in March will come to bold conclusions is rather questionable, given the fact that the recent gas disruption has not led to an end to differences of views and interests among the European member states. At the moment at least, is looks as if Europe remains divided over its energy policy.[343]

6.5 Analysis

6.5.1 A Regime in Transition?

None of these developments suggest that Germany has been superseded within the regime. The factors that enabled the German ascension to prominence in Europe in the first place are still largely in place: its national market is still the largest in Europe, its firms have continued to grow, and the geographic conditions that positioned German actors to generate revenue from the transit of Russian, Dutch and Norwegian gas, and to be the central player in continental swaps, remain. At the same time, however, signs of a shift in the dynamics of this hegemony have emerged. Russian assertions and gains, particularly in Eastern Europe, are undeniable, as is the steady progress of European liberalization, a process that has altered the structure of the state-firm consensus across Europe, and that has forced firms to adjust. In this section, I apply the regime criteria to

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[342] Nord Stream AG, "Nord Stream Completes Northern Section of Natural Gas Pipeline Through the Baltic Sea," 4 February, 2011. Accessed 20 February, 2011, from: http://www.nord-stream.com/en/press0/press-releases.html.

[343] Ulrich Speck, "Another Wake-Up Call? Europe Remains Divided Over Energy Security Policy," Radio Free Europe/Radio Liberty, 8 February, 2009. Accessed 8 February, 2009, from: http://www.rferl.org/content/Another_WakeUp_Call_Europe_Remains_Divided_Over_Energy_Security_Policy/1381175.html.

the question of German hegemony in this post-2000 era, placing greater emphasis on the gains of other actors than in previous chapters because the key dynamic in this phase could be something of 'qualified' relative gains by both the EU and Russia. I then consider the factors that suggest an emergent condition of German-Russian 'co-hegemony' in the NGR.

6.5.2 Assessing German Hegemony after 2000

A German take on *asymmetry of influence* would see a country that remains the principal carrier of Norwegian, Dutch and Russian gas to other European markets, and the principal agent of continental swap arrangements. Germany also continues to generate massive revenues as the largest market in Europe. But its size advantage (in terms of domestic consumption volume) is not what it was; as Table 6.3 indicates, the gap between German and Italian consumption has narrowed considerably. Again, it is difficult to view

Table 6.3 Major European Gas Consumers, 2001-2009 (bcm)[344]

	2001	2003	2005	2007	2009
Germany	82.9	85.5	85.9	92.7	78.0
Italy	64.5	71.7	79.0	77.8	71.6
France	40.7	43.8	45.0	41.9	42.6
Netherlands	39.3	39.3	39.0	37.2	38.9
Spain	18.2	23.8	32.3	35.1	34.6

this as an indicator of pending supersedence by another continental actor – German actors retain exclusive control over their domestic market, and even if Italian consumption

[344] Data extracted from annual issues of BP Statistical Review of World Energy from 2010, 2008, 2006, 2004 and 2002, cited widely throughout this dissertation, accessible at http://www.bp.com.

comes to equal that of Germany, there is still no analogue in the Italian case to Germany's geographic advantages. South Stream, should it be completed, has potential to change this somewhat – Russian plans are said to include a westward spur through Greece to Italy, a development that would augment the Russian gas Italy currently receives through Austria's TAG line and Germany's E.ON Ruhrgas network. But again, unless this gas (or the gas Italy receives from North Africa) begins to be shipped northward for German consumption, the disproportion in rents gained through gas transit will remain. In terms of *actor ability to use existing tools or conditions to achieve objectives,* then, despite Italy's relative 'gain,' there is little to suggest that Germany has slipped in relation to other European actors.

But there are indications of a relative adjustment when one considers the gains made by the EU and Russia. Brussels' gains, naturally, have been political; it has increased its influence incrementally through the liberalization process, having moved from the voluntary cooperation of states and firms in the first Directive to something far more robust in the Third. By establishing National Regulatory Authorities in member states, the EU has inserted something of a wedge into the state-firm consensus and, through new regulations and penalties, it has forced firms to adjust to playing field that is increasingly different from the one they evolved on.

Russia has made both political and commercial gains. It is no longer the docile supplier that ignored profit from its mid-70s entry onward; nor is it the desperate entity that threatened to come apart at the seams in the 1990s. Russia has 'found itself' in relation to natural gas, soundly rejecting the Energy Charter Treaty, and leaving no doubt as to the impossibility of foreign ownership in Gazprom's pipeline infrastructure. It has

demonstrated the will to play hardball with its own energy magnates and foreign energy multinationals, as Chevron, Exxon-Mobil and BP will all attest. Commercially, it has worked through aggressive investment to strike deals and acquire shares in distributers, trading houses and producers throughout Europe – with the Wingas and WIEH creations still thriving as crowning achievements in this regard – and in alternate suppliers around the European perimeter, most notably Nigeria, Algeria, Libya, Turkey, and throughout Eastern Europe. It has worked with its European buyers to maintain long-term contracts as an NGR cornerstone, despite their incompatibility with the liberalization effort, and has maintained a majority stake in the Nord Stream pipeline. Finally, it has managed to adopt this proactive posture and defy convention without sacrificing system stability or buyer confidence, difficulties in Ukraine notwithstanding.

One could argue that this 'relative loss' picture of German hegemony is also reflected in the area of *distributional conflict*. On one hand, German firms – like transmission companies across the continent – are still able to capitalize on their structural position as supply chain middlemen to protect profits by charging more to their distributors when prices go up, and by paying less to their suppliers when prices fall. They have also done well to maintain margins amid global recession, and got a major break in the Ukraine crisis in 2009, which obviated the need to compensate Gazprom for 'take-or-pay' reasons for 2009. Moreover, as mentioned above, they took the opportunity to re-negotiate with the Russian firm. A much bigger problem is the sort of sudden drop in demand that has occurred but, here again, the transmission companies do not appear to have suffered unduly. E.ON, which does have the added advantage of being a major player in the European electricity market, reported a 13 percent drop in sales (of

electricity and gas) in the third quarter of 2009, a shortfall attributed directly to the recession, and to a 7 percent drop in consumption. But the firm still managed to exceed analysts' expectations by showing an increase in third-quarter profit over the previous year, netting some €1.79B, largely on the strength of new power stations it brought online in Italy and Spain.[345] If transmission companies have felt the pinch of reduced demand, their ability to employ the 'structural change' strategies discussed above – in the E.ON example, merging and opening new electrical infrastructure – and their ability to absorb lower re-sale prices by paying lower prices themselves put them in a better position than typical commercial actors to endure the recession.

Mixed results are discernible again in the *coercive influence* dynamics of the third phase. The EU, for its part, engaged both Russia and the big European firms, failing decisively on the ECT in the former case, but achieving greater success in the latter. Augmenting its legislative capacity by drawing on 'tools and conditions' like EU Treaty law and its gas forum (EGRF), Brussels drafted, consulted, negotiated and passed three Gas Directives in 11 years, a massive achievement. It also surmounted considerably its own legislative shortcomings in creating the associated Gas Regulations in 2005, legally binding instruments that drew on the 'soft law' output of the consultative forum it set up, the EGRF.[346] Finally, it demonstrated grit through the Competition Directorate raids on the offices of the big transmission firms in 2005, forcing enormous fines on E.ON Ruhrgas and Gaz de France, and leading RWE to sell off 4,000 km of pipeline in 2008 to

[345] See Polya Lesova, "E.ON Lifts Guidance After Third-Quarter Profit Jumps," Marketwatch, 11 November, 2009. Accessed 3 March, 2010, from: http://www.marketwatch.com/story/eon-lifts-guidance-as-third-quarter-profit-jumps-2009-11-11?pagenumber=1, and BBC News, "E.On Profits Up Despite Weak UK," 13 May, 2009. Accessed 3 March, 2010, from: http://news.bbc.co.uk/2/hi/business/8047416.stm.

[346] The Chapter 2 discussion by Hancher and Del Guayo of the EU use of EGRF is recalled here. The Regulation can be seen at http://eur-lex.europa.eu/smartapi/cgi/sga_doc?smartapi!celexplus!prod!DocNumber&lg=en&type_doc=Regulation&an_doc=2005&nu_doc=1775, accessed 25 January, 2011.

avoid anti-trust action. While this falls naturally under the heading of *coercive influence*, and meets the criterion of 'extracting concessions' that was specified in Chapter 1, the shocking fines of €553M seem less crippling when evaluated in the context of company balance sheets – in 2008, Gaz de France generated some €68B to E.ON's "worldwide turnover" of €87B.[347]

Moreover, rather than succumbing and turning over a new leaf, German actors have worked with others to negotiate 'back doors' into the legislation, and have in many ways carried on business as usual. An excellent example is Wingas' response to its unfavourable ruling on the OPAL and NEL pipelines that it had proposed to offload Nord Stream gas. The German NRA initially refused to approve these projects unless they allowed TPA, leading Wingas to withdraw its application for exemption, and to form a daughter company – OPAL NEL TRANSPORT GmbH – in 2008, and immediately re-apply. This time, the *Bundesnetzagentur* did approve an exemption from network access (TPA), "rates regulation" and unbundling, effectively authorizing a 25-year monopoly for OPAL.[348] The relevance to coercive influence is the apparent willingness of firms to

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[347] See Europa Press Release, "Antitrust: Commission Fines E.ON and GDF Suez €553 MIllion Each for Market-Sharing in French and German Gas Markets," accessed 25 July, 2010, from: http://europa.eu/rapid/pressReleasesAction.do?reference=IP/09/1099. For the formal report on the ruling, see Eur-Lex, "Summary of Commission Decision of 8 July 2009: Relating to a proceeding under Article 81 of the EC Treaty (Case COMP/39.401 — E.ON/GDF) (notified under document C(2009) 5355 final)." Accessed 3 March, 2010, from: http://eur-lex.europa.eu/Notice.do?mode=dbl&lng1=en,en&lang=&lng2=bg,cs,da,de,el,en,es,et,fi,fr,hu,it,lt,lv,mt,nl,pl,pt,ro,sk,sl,sv,&val=502543:cs&page=&hwords=null.

[348] It did not approve similar exemption for NEL, however, on the grounds that while OPAL connected to transmission lines in the Czech Republic and would therefore make a "clear contribution to gas supply security in Europe," NEL began and terminated in Germany. Having received official notification of the decision from the German regulator in March of 2009, the EC Directorate General for Energy has not yet ruled on the compatibility of the German decision with EU competition law. Federal Network Agency, "Federal Network Agency Grants Partial Exemption for OPAL Pipeline," Press Release, 25 February, 2009. Accessed 23 February, 2010, from: http://www.bundesnetzagentur.de/media/archive/15650.pdf. But one has to wonder about the OPAL pipeline. While the main section of the line (from Griefswald to Obernau) is now exempt, one part of it is not, i.e., the "exit point" from OPAL planned for Groß Köris/Brandenburg. According to the decision by the *Bundesnetzagentur*, Nordstream gas leaving the OPAL at that point is "fully subject to regulation." The question that arises, then, is whether the project's

absorb the costs of restructuring in order to get around legislation. Such amorphousness, as suggested earlier, was not isolated. Should the EU legislation toughen, firms will be willing to divest, to merge, and to restructure as needed. In pipeline exemptions and watered-down legislation, the EU's major steps forward seem to be accompanied by side-doors for the major actors to step through.[349]

German actors have also maintained their *reputational* position, creatively managing the post-Ukraine confusion and recession issues with Gazprom as described above, refraining from any damaging commentary or action with regard to the behaviour of Russia and Ukraine, and maintaining purchase and delivery arrangements. They also conceded significant shares of Nord Stream to other European buyers (Gasunie and Gaz de France), thus mitigating any potential complaints about supply monopolization or collusion with Gazprom. At the same time, it is worth suggesting that Germany's reputational projection in Moscow does provoke questions – shared control of Nord Stream (i.e., with other continental firms) notwithstanding, it is clear that a 'special' relationship is emerging, a point to be taken up in 6.5.3, below.

All of these issues converge on the question of *hegemonic decline*. To some degree, the above factors do suggest a German slip – the country retains most of its

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masters at Wingas' OPAL NEL TRANSPORT GmbH inserted this exit point into the plan precisely to give the EC something to regulate, i.e., in order to make the main OPAL exemption more palatable. See Federal Network Agency, "Federal Network Agency Grants Partial Exemption for OPAL Pipeline," p.1.

[349] One area where the EU *has* had success is in convincing member states to align domestic legislation with the higher goals of the EU. An excellent example is the success of National Regulatory Authorities in creating competition within national markets. In another seminal study by the Oxford Institute of Energy Studies, Heiko Lohman explores the German gas market after 2005; his conclusions suggest the beginnings of profound change in market organization in the country. Tracing the Bundesnetzagentur's struggle with the industry to improve 'network access' (or TPA) Lohman argues that while significant industry resistance remains, "major changes have taken place in the German gas market between 2006 and 2009" in the form of much greater market access for gas purchasers, and the beginnings of gas trading. Further, he argues, while the regulatory authority has driven this process, "changed market behaviour and mindset towards regulation and competition of the major incumbents – in particular E.ON Ruhrgas – supported this development."Heiko Lohman, "The German Gas Market post 2005: Development of Real Competition." Oxford Institute for Energy Studies NG 33, September, 2009, p.3.

original advantages, and certainly continues to reap the benefits that flow from them, particularly with regard to other European state-firm partnerships, with only Italy making a demonstrable gain in terms of relative market size. But the EU is not going away, and there appears to be little question that liberalization continues to move forward, with the likely implication that the playing field will continue to change. However, this will not destroy E.ON Ruhrgas; nor does it mean that Wingas will be superseded by smaller firms in its region, or that the EU is unaware of the special place of these firms in Germany as backbones of the national economy, as key employers and holders of critical infrastructure. The rules may change, and firms may be forced to accept an increasing degree of openness, TPA and spot-market gas trading, but they still have ample potential to adjust, as we have seen with the strategies discussed earlier – mergers, divestitures, etc. – and with the creation (and use) of legislative backdoors. Moreover, powerful interests within national jurisdictions still resist, with Germany usually at the forefront of the effort.[350] The alignment of domestic law with the terms of the Third Directive is still fraught with challenges, as explored by Malmendier and Schendel.[351] German and other state-firm interests worked the consultative process with the EU to force compromises at every stage, e.g., seeing to it in the Third Directive that *mandatory* unbundling would not

[350] See interview with the new EU Commissioner for Energy, Günther Oettinger, on this point. EurActiv, "Analyst: EU Countries 'Still Reluctant' On Energy Liberalisation," 15 February, 2010. Accessed 2 March, 2010, from: http://www.euractiv.com/en/energy/analyst-eu-countries-still-reluctant-energy-liberalisation. See also the annual report of the Italian NRA: Autorità per l'energia elettrica e il gas, "Annual Report To The European Commission On Regulatory Activities And The State Of Services In The Electricity And Gas Sectors," 31 July, 2009. Accessed 25 January, 2010, from: http://www.energy-regulators.eu/portal/page/portal/EER_HOME/EER_PUBLICATIONS/NATIONAL_REPORTS/National%20Reporting%202009/NR_En/E09_NR_Italy-EN.pdf.

[351] Flagging confusion at the interface of EU and national law, these authors argue that a major problem lay in the German government's largely verbatim use of text from the Directive in drafting its Energy Industry Act, something that went "against the expressed expectations" of the Commission, as opposed to producing "detailed and precise unbundling requirements" themselves. The result is a difficulty in identifying "clearly defined and operational bans and commands from German unbundling rules," creating a potential legal morass that could only slow the progress of gas liberalization in the country. 2006: 369.

be legislated, creating a mechanism through which 'integrated firms' could retain ownership of a TSO that would report to an advisory panel dominated by industry representatives. They were also successful in ensuring that exemptions to the Third Directive were put in place, a mechanism that firms have not hesitated to use, apparently with the good offices of national regulatory authorities.[352]

Russia's gains in relative influence are different. Unlike the EU, Moscow and Gazprom are less concerned with altering the character of continental gas affairs than with maintaining them. And while Russia cannot prevent liberalization, it has lobbied its downstream partners successfully to protect the core of the relationship – long-term contracts, and some form of the destination clause. It has secured a substantial degree of independence in its domestic gas affairs, suffering only a small number of foreign partnerships in its upstream, always trading them off for downstream gains. These developments, and all of the others discussed above, suggest an enhanced Russian profile and influence within the NGR. And as a 'like unit' in terms of comparability with Germany, any hegemony it might lay claim to is more easily assessed than is the case with the EU.

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[352] A twist on hegemonic decline lies in the issue of greenhouse gas emissions and the increasing salience of the environmental argument. This is, arguably, the only visible threat to the ongoing use of natural gas; were public sentiment to swerve so comprehensively against its continued use that governments found it impossible to license firms to produce, transmit and distribute it – prompted, say, by a sudden, cataclysmic event in the environment – we could see the end of gas hegemony as we know it. This has more to do with the hegemony of natural gas itself than with the actor-based contest for hegemony under discussion here but, even in our case, the assertion that incremental environmental degradation would ever enable the EU to dislodge energy firms from their privileged positions in Germany or anywhere else is questionable. Even with a singular cataclysm, distance and time would likely dilute the matter long enough for the top-down (EU) or bottom-up (popular) pressure to diminish, and/or for gas interests to regroup. A reasonable parallel with this scenario, the Chernobyl accident, certainly had a powerful effect on public and government support for nuclear power, but the effect was neither geographically consistent nor permanent – reactors stayed online in many countries, and new ones are still being built. Until natural gas, the firms that deal in it, and the mechanisms that sustain it are legislated out of existence, which would require that gas be superseded by alternate forms of energy and national consensus that make it unprofitable and/or politically indefensible, both forms of hegemony will obtain – gas use will continue, and the large firms will continue to be pre-eminent.

6.5.3 German-Russian Co-Hegemony – Does the Definition Fit?

New Russian influence in its former republics, in the European periphery and particularly in Eastern Europe, is becoming pronounced enough that while we should not think in terms of Russia as a successor hegemon to Germany, I contend that a situation of 'co-hegemony' is emerging. In this section, I explore the dynamics that suggest a qualitative and quantitative separation of Russia from the rest of the regime without implying any kind of equal standing with Germany. The absence of conflict fits with the definition of co-hegemony offered in Chapter 1, i.e., the Russian improvement of fortune deriving not from Alt et al 'challenge and acquiescence' so much as from new opportunities in the NGR in the form of upstream projects, Nord Stream and – crucially – new commercial 'space' in Eastern Europe. These things combine to offer a widened benefit surplus that other actors do have some access to, e.g., the Gasunie and Gaz de France Suez shares in Nord Stream, but which will still deliver disproportionate benefits to Germany and Russia.

While an aggregate loss in relative gains could be posited for Germany, this is due more to the emergence of new opportunities in which Russia has a large share (upstream production, pipelines) than to any erosion of German influence in its core markets. Exactly where the gains have been made is therefore just as important as whether they were made. Furthermore, relative gains loss or not, the Russian emergence has not disrupted the flow of gas (and profit) to Germany. Nor has it soured Bonn's relationship with other actors to any debilitating degree, though incidents like the environmental challenge Germany has initiated to the Polish proposal for an LNG plant in the Baltic (discussed in Chapter 7) are certainly not helping. Finally, the deepening of the special

relationship between the two countries is consistent with the element of exclusive cooperation posited in the definition, an amity separate from other linkages in the regime between the co-hegemons, evinced through Germany's unique positions in upstream projects, on the Gazprom board, in shareholdings in Russia, and other areas.

6.5.4 Asserting Co-Hegemony - Practical Basis

Within the list of gains that Russia has made in the European downstream, in the former Republics, and in the periphery, discussed in the previous section and elsewhere in this chapter, something interesting is happening in Eastern Europe, where the entry of the former COMECON states into the EU has not prevented Russia from exerting a surprising level of influence in gas matters. Moreover, this process appears to be unfolding without objection or competition from West European actors. One possible explanation for this could be that western actors view the region as ground they can afford to concede; despite a recent RWE Transgas decision to establish a pipeline link from the Czech Republic into Poland, there has been no serious effort to extend eastward-flowing pipelines into the region, likely because there is no serious commercial incentive. Further, there is little to be gained by competing with Moscow there and, potentially at least, it is a useful bargaining chip for western actors to give up in light of their apparent refusal to concede downstream assets to Gazprom in their own national markets. In one notable example from 2006, E.ON Ruhrgas traded holdings it had acquired in Hungary's Foldgaz to Gazprom for a 25 percent stake (minus one share) in Severneftegazprom, the

license-holder for the Yuzhno-Russkoye field.[353] As the New York Times reported at the time,

> While accepting a German partner in its gas fields, the deal also marks the latest corporate maneuver by Gazprom, already the world's largest natural gas producer, to expand its operations in the retail side of the business in Europe. ... The deal, meanwhile, will entrenches Gazprom's position in energy sales in Eastern Europe, where the company is already dominant ...[354]

Crucially, and paradoxically, these developments have unfolded alongside a concerted effort by Russia and Germany to transform their longstanding 'special relationship' into something deeper. In terms of reputation and uncertainty, Russia demonstrated no shortage of Alt-esque 'toughness' in its dealings in the sub-regime, but it clearly invested heavily in Keohane's reputation for reliability where Bonn was concerned. In the Nord Stream pipeline, the two parties are embarking on what is only the second major Euro-Russian pipeline project of the post-Soviet era. Commercially, the relationship features as much horse-trading as it ever has – as recently as October, 2008, E.ON ceded part of its 6.43 percent share in Gazprom (amounting to 2.93 percent of Gazprom's overall share distribution) in exchange for a share in the Yuzhno-Russkoye field. Two months later, at the request of E.ON CEO Wulf Bernotat, Putin reaffirmed Russia's commitment to E.ON, referring to the company as "a strategic partner in the fullest sense of that

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[353] Gazprom received 50% - 1 share in E.ON Földgáz Trade and E.ON Földgáz Storage, and an additional 25% + 1 share in E.ON Hungária, the entity in charge of E.ON's gas and power distribution & marketing in Hungary. See an untitled E.ON powerpoint presentation on the subject accessed 14 August, 2010, from www.eon.com/download/.../060713_basic_agreement_eon_gazprom.pdf.

[354] The article goes on to suggest that: "While such moves toward expansion have sparked opposition in Europe, Gazprom has said that the reciprocity implicit in swap agreements rather than acquisitions is intended to address the growing protectionism in European energy markets ... Gazprom said in a statement that it is open to foreign investment in its reserves, so long as other companies are willing to offer assets "equivalent in value and strategic attractiveness" in stock swaps." Andrew E. Kramer, "Gazprom and E.ON to Swap Assets," New York Times [online], 13 July, 2006. Accessed 14 August, 2010, from http://www.nytimes.com/2006/07/13/business/worldbusiness/13iht-eon.2194072.html.

word."[355] There are other unique interpersonal linkages, e.g., the Gerhard Schroeder link cited earlier, and Putin's cordial relationship with Angela Merkel.[356]

These connections existed in one form or another before 2000, but they are now contextualized by two crucial new factors: increasing continental dependence on Russia for gas, and the constraints of liberalization. In this light, Nord Stream becomes particularly significant – in one view, it will enhance supply/market security by rendering far less likely the seemingly perpetual difficulties in Ukraine. At the same time, it will serve the interests of Germany and Russia by releasing the operators from the unbundling requirements of the third Gas Directive. These incentives likely account for the near-absence of negative public statements from either side about the other. Russian acquisitions were guaranteed to push political buttons, and the Ukraine crises damaged the general European faith in Russian reliability, as reams of vitriolic commentary attest. But from Bonn, and from E.ON and Wintershall (like Gaz de France Suez and ENI), there was nary an unkind word; when these companies did speak, it was to reinforce the message that Gazprom was issuing ad nauseum: relations were excellent, all parties remained committed to meeting the terms of their existing contracts (and to signing new ones), and Russia remained reliable. In contrast to the political and media commentary, those schooled in natural gas kept their heads very low, apparently believing that the best

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[355] Kommersant, "Putin Gives E.On a Guarantee," 1 December, 2008. Accessed 14 February, 2010, from: http://www.kommersant.com/p1086950/E.On_contracts/.

[356] In a 2009 interview Vladimir Putin referred specifically to his fondness for the country, and to its "definite national consensus on the development of the relationship with Russia." Stuart Williams, "Putin Nostalgic for Days as Spy in East Germany," Sydney Morning Herald, 10 November, 2009 [online]. Accessed 23 July, 2010, from http://www.smh.com.au/world/putin-nostalgic-for-days-as-spy-in-east-germany-20091109-i5ek.html. For a less syrupy account, see David Hoffman, "Putin's Career Rooted in Russia's KGB," Washington Post, 30 January, 2000 [online]. Accessed 23 July, 2010, from: http://www.washingtonpost.com/wp-srv/inatl/longterm/russiagov/putin.htm.

way to deal with the concern was to deliver gas steadily, quietly, with the occasional announcement of an upstream deal or a new supply contract.

On the other hand, Nord Stream is prompting concern in Europe over increasing exclusivity in the special relationship, and the 'darker' sides of the agreement. In one particularly compelling review, Radio Free Europe/Radio Liberty suggests that Nord Stream is but one element in a strategy to undermine EU unity and further Russian aims by effectively turning German firms and retired politicians into "Kremlin lobbyists" in Germany and elsewhere, eroding sovereignty "by reducing their enthusiasm for EU unity and collective action, especially on the energy front."[357] The high rhetoric referred to above is not replicated in those states that Nord Stream will circumvent – the pipeline drastically reduces any counter-leverage they might have had in dealings with Gazprom, and countries like Poland, Hungary, Slovakia and the Czech Republic now face the prospect of reduced – or, in a dispute, eliminated – transit fees from the current trunklines.

Nord Stream constitutes, therefore, the clearest manifestation of the co-hegemony 'thesis.' But despite the degree of concern it is generating in Eastern Europe, and while these developments may be altering the *character* of the regime, they do not suggest a pending Russian replacement of the German incumbent within the NGR. Major constraints on Russia persist. In Ukraine, for example, Moscow has not succeeded in projecting any kind of convincing medium- or long-term relationship stability, despite (or perhaps because of) the major intensification of the coercive effort that the cut-offs in 2006 and 2009 represent. These events did demonstrate an unprecedented willingness to

[357] Feifer, Gregory, "Too Special a Friendship: Is Germany Questioning Russia's Embrace?" RFE/RL [online], 1 August, 2011, Accessed 1 August, 2011, from http://www.rferl.org/content/germany_and_russia_too_special_a_relationship/24262486.html.

absorb the political and economic costs of shortages in Europe, a step that Moscow appeared to deem necessary to extract payment for gas debts from Kiev, but one has to wonder if the inevitable fallout was accurately assessed.[358] The Bulgarian 'defection' from South Stream will be recalled here, and in all likelihood Gazprom could not have breathed more life into the once-moribund Nabucco project if it had tried.

Moreover, as we have seen, the company took an enormous hit in 2009 from the 33% fall in European demand, creating widespread doubt about its balance sheet. Even when commercial conditions were better, and Wingas was demonstrating concrete incursions on Ruhrgas' bottom line, the E.ON merger provided the German side with padding. Wingas' figures for 2003 and 2004, for example, cite gross sales of €3.001 and €3.259 billion. Over at E.ON-Ruhrgas, the numbers were more impressive but suggested a loss of market share to Wingas, declining from €14.745B in 2003 to €14.426B in 2004, a decimal-level difference in these huge figures but still amounting to some €319M. Still, this development was not terribly injurious to E.ON's overall profits (i.e., those outside its gas operations), which still managed to increase by roughly 3.5 percent. Even Gazprom's astonishing gross sales of 780,613 million rubles (approximately €21.2B) and 887,231 million roubles (€23.6B) in the same two years must be considered in light of the fact that events have not been kind to the Russian firm since then.[359]

Having been forced to absorb a massive drop in oil prices and drastic reduction in demand, Gazprom might have been able to squeeze revenue out of its take-or-pay

[358] There is still a non-sensical aspect to the 2009 cut-off, and it is unclear whether the magnitude of the downstream shortages was fully understood or considered in Moscow. It is possible that events, once set in motion, simply got out of everyone's control – this was certainly the sentiment in personal conversations the author had with gas experts at Oxford University in the Fall of 2009.

[359] All figures drawn from these companies' annual reports for 2004 on 1 March, 2010. See http://www.wingas.de/fileadmin/pdf/broschueren/WINGAS_GB_2004_en.pdf, http://www.eon-ruhrgas.com/cps/rde/xchg/SID-B032430D-09F59F08/er-corporate/hs.xsl/817.htm?rdeLocaleAttr=en, and http://old.gazprom.ru/documents/Annual_Report_Eng_2004.pdf.

provisions with European buyers. But the 2009 Ukraine crisis made this untenable, and the company chose instead to write the losses off and renegotiate in the hope of a better deal over the next several years.[360] Questions have also arisen over the willingness and ability of the company to invest in its much-maligned infrastructure, concerns that would have been more pronounced had recession not imposed such a drastic reduction in European demand for Russian gas. Finally, the Gas OPEC idea remains a contradiction in terms that cannot be resolved in such a way as to disadvantage European buyers – for the moment. Russian 'market dependence' on Europe, therefore, remains every bit as pertinent as European energy dependence on Russia, as demonstrated by Russian (and Ukrainian) sending of high officials to lobby European leaders before the 2009 cutoffs had their hardest impact.

In sum, the new Russian position creates an NGR that, to use the Alt et al continuum identified in Chapter 1, has moved further from the 'empire' pole to 'alliance.' Moscow has formed deeper personal connections in Germany than it has anywhere else in Europe; it has embarked on (and achieved majority control of) a massive pipeline project that will link the two states directly; it has established more substantial ownership cross-linkages (through Gazprom's holding in Wingas and E.ON Ruhrgas' holding in Gazprom) than either party has elsewhere; it appears to be consolidating a form of 'sub-hegemony' in its former orbit in Eastern Europe; and the Russian-German link still comprises larger volumes of gas, regardless of end destinations, than any other national pairing. The shift to co-hegemony is far from complete, and the German-Russian balance may never truly be 'even,' but the situation certainly appears to have changed.

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[360] See Ivan Vasilyev and Yelena Mazneva, "Gazprom Loses $1Bln in Write-Off for Europe," Moscow Times Online, 27 January, 2010. Accessed 3 February, 2010, from: http://www.themoscowtimes.com/business/article/gazprom-loses-1bln-in-write-off-for-europe/398245.html

CHAPTER 7 THE SECURITY QUESTION

A key aim of this dissertation has been to provide a more nuanced portrayal of the European natural gas regime than most geopolitical and commercial interpretations have offered to date, and to use it as a basis from which to evaluate the contest for hegemony and the potential Russian security threat to Europe. The question of hegemony has been addressed at length in Chapters 3 to 6. In this chapter, I assess the security threat, drawing from many of the same data and observations that informed the hegemony question. Following a brief overview of gas security treatments in the literature, I provide a definitional scope for 'threat,' and offer three variants for consideration – price manipulation, asset ownership coercion, and demands for political concessions.

I then consider these threats in two stages. The first aims to ground the security question in the regime I have portrayed by establishing three 'critical traits,' which I present as the essential providers of stability and regime integrity: mutual assurance among actors; the prevalence and nature of management consensus in Western Europe; and the high costs of coercion. Taken together, these critical traits provide a useful backdrop for the assessment of the likelihood and viability of price manipulation, asset ownership coercion and demands for political concessions. Examined in this way, the evidence suggests considerable disincentive for Russia to level any of these threats at its European partners. I do identify possible scenarios in which Russian coercion could become more likely or more effective, but suggest that the current arrangements are stronger than frequently assumed, and that Russian ambitions do not constitute any clear security threat to Europe at present.

These arguments come, however, with an important qualification: they apply to Russia's traditional high-order buyers in Western Europe. In Central Europe, the dynamics are different, and the potential for actual security deficiency is higher. After discussing these differences, I suggest that an indirect threat to the integrity of the NGR could emerge from tensions between EU values, governance and responsibilities on one hand, and disproportionate Russian influence associated with NGR co-hegemony on the other. For reasons of space and pipeline relevance, I limit this part of the discussion to the Visegrad countries of Poland, the Czech Republic, Slovakia and Hungary.

7.1 The Scattered Gas Security Debate

No small number of observers have argued that Russia's natural gas ambitions do threaten European gas security, but they have done so for different reasons, in different ways, and with differing levels of sophistication and insight. Some analysts have opted for a regional focus; Torbakov, for example, has emphasized the link between 'geopolitical loyalty' and energy coercion, tracing Gazprom's price hikes with neighbours lacking "special relations" with Moscow or showing "pro-Western leanings." Examining price relations in the former Soviet sphere, he focuses on the "pro-Western foreign policy course" planned by Ukraine and Georgia after 2003 and 2004.[361]

A more comprehensive treatment is offered by Robert Larsson, whose study for the Swedish Defense Agency identifies over fifty examples of Russian "cut-offs, take-overs, coercive price policy, blackmail or threats" to the Baltics, Ukraine, Belarus,

[361] Igor Torbakov, "Kremlin Uses Energy to Teach Ex-Soviet Neighbors a Lesson in Geopolitical Loyalty." Jamestown Foundation [Online], 2 December, 2005. Accessed 5 December, 2005, from http://www.jamestown.org/single/?no_cache=1&tx_ttnews%5Btt_news%5D=31169.

Moldova and Georgia after 1991.[362] Larsson's piece also delves into the 'why' of Russian coercion throughout the FSU – the Russian effort to extract concessions, physical infrastructure, favourable economic deals, and to make political statements, he argues, have been driven by a 'securitization' of energy issues by the Russian leadership. This, in turn, derives from "conflicting trends" in the country, e.g., between democracy and authoritarianism, between closed markets and globalization. The resulting "mirage of stability," he asserts, interacts with the Kremlin's "perceptions, intentions, capabilities, track record, lack of democracy and (lack of) rule of law" to deepen neighbouring countries' problems of dependence on Russian energy.[363] Larsson does not draw overtly on the 'unexploited advantage' in Moscow's historical subsidization of gas prices throughout the Soviet orbit; nor does he dwell on Russia's longstanding commercial, political, ethnic, personal, and criminal linkages with these states. Taken in the aggregate, these conditions create a vastly different arena for security, coercion and threat than exists in Central and Western Europe.

Other treatments are less geographically than thematically focused, and typically fall into the commercial or geopolitical binarism cited in Chapter 1. Analysts with an interest in the commercial pathologies of the trade address the gap between actual NGR arrangements and the commercial ideal: liberalized markets, transparency and rule of law, an imperative expressed in the definition of 'energy security' offered by economist Pierre Noel:

> I would advocate a narrow definition of energy security, centered on the availability of energy to those who are willing to pay the market price. Energy insecurity can then be linked to situations when energy markets do not function properly. Energy security

[362] Larsson (2007:4).
[363] Larsson, 2007: 4.

policies should be mostly aimed at 'making markets work' and letting them work when they do.[364]

Some treatments attempt to straddle the geopolitical-commercial line. In a 2006 paper, the Centre for European Policy Studies emphasizes non-transparency, refusal of access to pipelines, and political interference in markets. "The EU is all about supranational rules of economic and political conduct, and dispute settlement by ordered legal procedures" the authors argue, "whereas Russia is showing itself to be all about raw power …"[365] Similarly, the Cambridge Energy Research Associates argue that the greatest gas security risk does not lie in interruptions or cutoffs, or "even the threat of them." Instead, "the more significant risk" is the degeneration of the over-arching politico-economic relationship, creating a mutual "crisis of confidence" that requires each side to manage the interests of the other to be mitigated.[366]

But the most ubiquitous variant of gas security arguments – and too frequently the least sophisticated – adopts a pronounced geopolitical slant. Here, analysts typically infer from two sets of conditions. A structural set begins with the 'who has gas and who does not' view, inferring and implying tension between diminishing reserves and increasing demand in Europe on one hand, and increasing European dependence on Russia on the other. The second set of conditions deals more with process, emphasizing Russian *decisions* over the past ten years, as exemplified by any of the policy moves discussed in previous chapters, e.g., acquisitions in the European periphery. A key difference between

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[364] Dr. Pierre Noel, Cambridge University energy specialist, writing in an online Q&A for the Financial Times, January 28, 2008. Accessed on 7 February 2008 from: http://www.ft.com/cms/s/2/fd6ef84a-bf85-11dc-8052-0000779fd2ac.html.

[365] Centre for European Studies, "What to Do About Gazprom's Monopoly Power?" 2 December, 2006. Accessed 5 June, 2007, from: http://old.ceps.eu/Article.php?article_id=509.

[366] CERA report reviewed in "Crisis of Confidence Afflicts Russian-European Gas Relationship," CleantechPRwire [online], 10 September, 2007. Accessed 31 July, 2009, from: http://www.ct-si.org/news/press/item.html?id=518.

these two sets of conditions is that while the structural set is based on the same sort of 'measurement of power' discernible in Structural Realism, it need not suggest malign intent. This is not necessarily true of the process set, which does derive an air of suspicion from the manoevering of Gazprom and the Kremlin over the past decade.

A 2008 EU document entitled *EU Energy Security Plan* offers a fairly diplomatic example of the structural variant. Focusing on non-diversification of supply, the report argues that "reserves and spare production capacity are becoming increasingly concentrated in a few hands." The report does not name Russia specifically, but adds that "this is of most concern with respect to gas, where a number of member states are overwhelmingly dependent on one single supplier."[367] This dispassionate view contrasts with those that factor in the 'process' conditions. Here, the focus is directly on Russia, with malign intent frequently inferred from the long list of signals that, despite the consistent flow of gas, emerge as unnerving: the rejection of the ECT; the Ukraine crises; purchases downstream and in the periphery; heavy-handed asset acquisition in the former republics; the cancellation of the Sakhalin contracts, and so forth.

Taken together, these conditions paint a picture of Russian ability (structural) and willingness (process) to exploit the situation. Unfortunately, the vast majority of analyses of this stripe, particularly in popular media and political commentary, do not go much deeper than that, and a tendency to connect these structural conditions with the dire intent of process – and hence with the existence of threat – is discernible. In a nuanced and useful treatment of these dynamics, Finon and Locatelli lament this tendency; their introductory observation is worth quoting at length:

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[367] Summarized in David Charter, "Power Supergrid Plan to Protect Europe from Russian Threat to Choke Off Energy," Times of London [online], 13 November, 2008. Accessed 6 November, 2010, from: http://business.timesonline.co.uk/tol/business/industry_sectors/natural_resources/article5142622.ece.

> Politicians and the media are advocating an excessively gloomy picture of relations between the EU and Russia, sullied by a geopolitical power struggle. Unfortunately, this view has spilled over into analysis of the economic risks associated with Gazprom's dominant position on the European gas market …The economists and political commentators who latch onto this issue tend to extrapolate from the political risk typically associated with a position of dependence to business relations, highlighting the risk of market power resulting from an alleged monopoly. The list of possible economic risks associated, wrongly or rightly, with growing Russian gas exports to Europe is long. But there is no certainty that a dramatic interpretation of the economic risk is particularly helpful in the search for a compromise, with stable rules governing trade in gas between Russia and the EU. However, this interpretation is currently guiding politicians, the media, and many of the analysts advising governments …[368]

The authors cite David Clark, a one-time advisor to the British Government, as exemplifying this tendency. Clark's 2006 article in *The Guardian* links the notion of coercion/threat, increasing European dependence, and malign Russian intent: "[Russia's] coercive use of energy policy gives greatest cause for concern. Europe now depends on Russia for 25% of its gas, a figure set to rise to 70% by 2020, at a time when Russian behaviour is becoming more belligerent."[369] Ariel Cohen offers another example. Writing in 2007, Cohen argues that Russia's three main gas tactics – "locking in demand" through long-term, bilateral contracts; "locking in supply" by monopolizing pipeline links to Europe; and "consolidating its control" of energy resources "throughout Eurasia" – evince a deliberate effort to position Russia to manipulate pricing and/or gas flows in Europe. From these observations, he concludes that "[m]any European countries depend heavily on energy imports and are highly vulnerable to global energy shocks. If current

[368] "Russian and European Gas Interdependence," p. 423.
[369] David Clark, "Putin's Power Struggle: We Cannot Let Russia Use its Domination of Energy Supplies to Bully its Neighbours Across Europe," The Guardian, 29 November, 2006. Accessed 20 November, 2010, from: http://www.guardian.co.uk/commentisfree/2006/nov/29/comment.eu.

trends prevail, the Kremlin could translate its energy monopoly into untenable foreign and security policy influence in Europe …"[370]

Granted, such interpretations are based on a set of indicators that are not encouraging, and analysts like Cohen and Clark have good reason to draw attention to Gazprom behaviour since 2000. Moreover, there is little sign of European-style transparency, governance or liberalization emerging in Russia any time soon, and the levels of organized crime and its alleged links to legitimate commercial activity are beyond troubling. But the link between the more visible sorts of developments cited in works like Cohen's and the type of leverage he implies seems frequently to lack explicit analysis. Cohen's assertion that the Kremlin could "translate" the current dynamics into political influence would be bolstered by specific references to *how* this might occur, what *kinds* of influence might be sought, what conditions it might or might not succeed under, what the costs of this coercion might be to Russia, and so on. In linking European vunerability to "global energy shocks," Cohen tells us nothing about the role of Russian gas, and his assertion of the Kremlin's "energy monopoly" is simply incorrect – as we have seen, despite its centrality to the European energy balance, Russia does *not* have a monopoly on European energy supply, and while the existence of a co-dependent situation is generally accepted, the notion that European dependence on Russia is increasing is not universally accepted.[371]

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[370] Ariel Cohen, "Europe's Strategic Dependence on Russian Energy," Heritage Foundation (Backgrounder #2083), 5 November, 2007. Accessed 6 June 2008 from http://www.heritage.org/Research/Europe/bg2083.cfm.

[371] See, for example, a 2009 article by Stacy Closson that suggests the direction of the dependence could actually favour Europe, i.e., in the form of Russian *market* dependence as the Russian share of the European energy balance actually decreases. Moreover, she argues, Russia will be unable to meet European gas demand by 2030, a trend that will force European actors to invest in LNG and shale gas projects. "Russia's Key Customer," in Jeronim Perovic, Robert W. Orttung and Andreas Wenger (Eds), Russian

The argument for a Russian gas threat to Europe is also hampered by duality in the available indicators. Few, if any, of the observable signals *exclusively* imply skullduggery; for every alarming trigger, it is possible to trot out a commercially rational analogue, a fact that has served to muddy the discussion considerably. Russia does not cut off Ukrainian gas, for example, because of imperialist intent in its former sphere; it cuts off the gas because Ukraine owes money, because it is stealing gas, and because Russia has an obvious, serious interest in the integrity of its European transmission line.[372] Similarly, Gazprom is buying up assets far and wide because, like all firms, it wants to grow – Locatelli's argument that the such action constitutes normal energy firm behaviour can be invoked here. And Moscow is courting Germany specifically because it is the largest market in Europe, the lynchpin of downstream pipeline routes, and the key to the company's downstream sales – in Germany, Gazprom derives the bulk of its revenue; and through Germany, Gazprom makes most of the rest. Rather than looming as a case-study in divide-and-conquer, then, the special relationship can be presented as a logical, predictable manifestation of shared interest.[373]

Energy Power and Foreign Relations: Implications for Conflict and Cooperation. London: Routledge, 2009, pp. 89-108.

[372] A 2008 article focuses more on the impact of Ukraine's Orange Revolution as an issue in the 2006 gas dispute, but still offers a case in point: "What many outsiders saw as a cold-blooded Kremlin attempt to strangle an independent-minded and democratically oriented Ukraine was largely a depserate and fairly heavy-handed effort to make Ukraine pay a more adequate price for the resources it consumed." Dmitri Trenin, "Energy Geopolitics in Russia-EU Relations," in Pipelines, Politics and Power: The Future of EU-Russia Energy Relations. London: Centre for European Reform, p. 18.

[373] The malign/benign dilemma is insightfully treated in Wallander's 2007 assertion of a debate between a 'postimperialist,' westernizing view of Russian desire for good regional relations and European norms, and a 'neoimperialist' view emphasizing the re-establishment of regional dominance and counter-balancing strength. Arguing that both offer credible explanations of recent Russian policy, she offers the concept of 'trans-imperialism' to stress two aspects of wealth and power generation in Russia. Internationally, power and wealth are acquired through a facilitative, open-market, globalizing ethos. But the domestic system is one of 'patrimonial authoritarianism,' and is "based on centralization, control, and rule by an elite that is not accountable to its society." The patrimonial element, she argues, is evident because, in this system, the "primary relationship" is between patron and client, a relationship "dependent on control and distribution of 'rents,' wealth created not by productive economic activity but by the political manipulation of economic exchange." In Russia today, corruption is less a "feature of the system" than something "essential to the

In fairness to analysts like Cohen, it must be stated again that the alteration of Russian gas posture in the Putin years has come with no shortage of signals that, at the very least, deserve scrutiny. But the type of questions that need to be asked are precisely the ones that too many analyses neglect, i.e., how the visible aspects of Russian behaviour could be applied as leverage in Western Europe, and what sorts of influence might become possible as a result. The problem is not that eyebrows are being raised in the West; it is that the analytical linking of signal to leverage is underdeveloped.

7.2 Security Threat – Scope and Manifestations

If natural gas security consists in the socio-economic (and hence political) well-being it provides for governments, firms and populations, any disruption of these arrangements could constitute a security problem. As one observer writes, "[s]o degraded has the term 'security' become, in relation both to gas and energy in general, that it is essential to define the geographical focus, the precise problems and the timeframes that are being considered." Moreover, the security environment comprises "a cluster of short term and long term [sic] issues among which are resource availability, technical breakdown and accident, terrorist attack, political instability, and lack of timely

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very functioning of political power," a unique social contract in which resources are controlled to "enrich those within patron-client clans." This internal reality, for Wallander, clashes dramatically with Russia's external pursuit of interest through globalization, presenting the Russian leadership with a dilemma: to derive maximum benefit from globalization, a commitment to all of the liberal, pro-market elements that the EU is pushing is required. Transimperialism serves as the vehicle through which Moscow manages this dilemma, allowing it to cope with the demands and opportunities of globalization while sustaining 'patrimonial authoritarianism' domestically. "Transimperialism," she argues, "is the extension of patrimonial authoritarianism into a globalized world." Celeste A. Wallander, "Russian Transimperialism and its Implications," Washington Quarterly, Vol 30, No.2, 2007, pp. 107–122.

investment …"[374] I opt for a narrower sense of security threat, one based on *deliberate* interruption, redirection or termination of deliveries in exchange for commercial or political concessions. An accidental pipeline explosion is an inconvenience and an expense, but it is not the sort of security threat under discussion here. I have also focused on overt threats, mainly because they have constituted the bulk of the security discussion to date. I do not deal at length with the sorts of covert threats executable through corruption or organized crime, but acknowledge their potential to constitute a security problem of an entirely different character. In section 7.5.1 I expand on this point somewhat, but in the main I confine my analysis to the most frequently-cited security threats, specified below.

For geographic scope, I define the source of the threat and the locus of its impact – i.e., the coercer and the coercee – in terms of a *Russian*-engineered threat as per the research question. The possibility that a transit state could take matters into its own hands is not addressed here. With regard to locus of impact, our research question is no more specific than 'Europe,' and this poses a problem. EU expansion has, as explored in the co-hegemony discussion in Chapter 6, created a confused situation in Central Europe, which is caught between new EU governance and older Russian influence in physical and commercial gas arrangements (if not in political habit as well) that is disproportionate to Western natural gas influence in the region. I will therefore address the security question in two stages. The core of the analysis will treat Europe as comprising the traditional, mainstream NGR members of Central and Western Europe. I explore the situation in Eastern Europe in section 7.5, below.

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[374] Both quotes from Jonathan Stern, "The New Security Environment for European Gas: Worsening Geopolitics and Increasing Global Competition for LNG," Oxford: Oxford Institute for Energy Studies NG15, October, 2006, p. 1.

Three obvious avenues of threat present themselves: price hikes, asset ownership coercion, and demands for political concessions. In each case, the maintenance of gas deliveries – or possibly an upstream stake – serve as the benefit (or carrot) to be disrupted or witheld. Interrupting deliveries à la Ukraine, or witholding an upstream stake, emerge as the sticks. First, however, it might be helpful briefly to revisit the nature of the regime that these threats would ostensibly be levelled against.

7.3 Regime Integrity – A Backdrop for Threat Assessment

The preferences and interests that typically link actors to international regimes are likely quite different from those that connect actors to the NGR. In most cases, actors are motivated to participate for the sorts of reasons cited in Chapter 1 – to solve a political problem, to manage a 'common aversion' or 'common threat,' or through any number of incentives or pressures, as per Oran Young's identification of negotiated, imposed or spontaneous regime formation.[375] Interestingly, the EU liberalization effort appears to reflect fairly conventional regime logic – from its own hegemonic position, Brussels is working through a mixture of coercion and negotiation to impose new rules on an extant realm of activity. But the NGR itself is different. Here, both the interests that drive it and the conventions that characterize it have evolved over time, mainly through bilateral relationships, to cope with the physical properties of the commodity, the location of reserves and markets, and the interplay of firm, state and public interests that have taken shape (and acquired weight) alongside this activity. Three aspects of the European NGR, cited previously in Chapters 1 and 2, will serve us in evaluating the security aspect of the

[375] See Oran R. Young, "International Regimes: Toward a New Theory of Institutions," World Politics, Vol. 39, No. 1, 1986, pp. 104-122.

research question: the importance of trust and mutual assurance among actors in international natural gas relationships; the prevalence and nature of management consensus in Western Europe; and the high costs of coercion. In this section, I briefly summarize the ways in which these aspects contribute to regime integrity – i.e., provide the institutional 'glue' that maintains current arrangements and conventions – and highlight the disincentives they provide for either side to issue threats.

7.3.1 Implications of the Need for Mutual Assurance

As discussed at length in Chapter 2, the physical properties of natural gas have combined with the location of reserves and markets in the Euro-Russian case to encourage a particular form of infrastructural and market organization that, in turn, require high levels of mutual trust and assurance among actors. For producers to invest in production, they require commitments that transmission infrastructure will be built; for transmission companies to so invest, they require assurance that producers will make the investment to produce, and that distributors will purchase the gas at the other end. This interlinked need for assurance has led the parties to adopt a series of mechanisms through which natural gas has flowed smoothly and profitably from the mid-1960s on. Long-term supply contracts have allowed actors to amortize their very high investment costs over longer time horizons and to realize shorter-term profits; these contracts have also demonstrated mutual commitment that, through repeated iteration, have deepened the sense of mutual confidence between European buyers and their major suppliers. Oil indexing is another mechanism. By agreeing to it, actors externalize a persistent flashpoint – price negotiation – and lower its potential to poison the relationship. At the

same time, actors have built flexibility into these contracts should environmental changes present either side with an obvious disadvantage.

This need is accentuated by the near-indispensability that gas has assumed in national economies. Ongoing industrial, commercial and residential requirements leave European actors no room for a 'pause key' in gas deliveries – load factor swings aside, the need for constant, predictable inflow is essentially a constant in the NGR. This, combined with the enormous difficulty of establishing alternatives in the event that an existing supply relationship unravelled, heightens tenfold the importance of mutual assurance. Unnerving signals from either side of the export-import divide are therefore something actors should be very hestitant to impart: the intensity of the need for constant inflow combine with the lengthy time and trouble required to find alternatives to create enormous stress when signs of danger arise. Gas storage and alternate supply may be available, but generally gas infrastructure is put in place precisely *because* the alternatives are limited.

These dynamics would heighten the sense of alarm in a crisis. Decision-makers would face enormous pressure in making an on-the-spot decision as to the magnitude of the risk, the likelihood of quick resolution, or the need to initiate the lengthy process of creating alternatives. Supply disruptions, or even the hint of them, are therefore an enormous concern. These dynamics separate the trade in commodities like natural gas from transactions in which money is exchanged for a defined good or service. With gas, the buyer is also buying assurance that the provision will extend into the distant future, rendering further massive effort to find supply unnecessary, and carrying all of the

secondary assurances for governments, industrial buyers and populations discussed previously.

One converse of this is the awareness that a would-be coercer might possess regarding the effect that a cut-off, or even the perception that one is likely, might have. In the case of Russia and Western Europe, it is noteworthy that no over-arching political problem, even those related to Cold War concerns like the U.S. objection to participation in the Yamal pipeline extension, has ever provided sufficient impetus for Soyuzgazexport or Gazprom to threaten their major European buyers. The contrast between this continuity and recent Russian posture toward Ukraine, other former republics, and some countries in Eastern Europe, is stark – Russia has not only issued threats in these places, it has carried them out. But in Western Europe, one would be hard-pressed to find a hint of a threat to one of the large firms, or to a government. We have seen instances where Moscow has refrained from playing down concerns like the China option or Gas OPEC, but one gets the sense that such actions were intended more to counter the more shrill geopolitical commentaries than to unnerve parties to the everyday relationship. Mutual assurance and trust, then, consist in more than platitudes or the absence of obvious threats; the absence of rancour in the Russian relationship with Western Europe suggests that actors are going to great lengths to prevent each other from even thinking the relationship is anything other than sound. Again, this is due to the importance of gas to national economic 'flow' and the difficulty of putting alternatives in place. Under these conditions, mere consideration that a problem might exist could *force* actors to pursue contingencies.

7.3.2 Implications of Management Consensus

The core chapters of this discussion contain repeated references to state-firm interaction, from the search for ways to manage natural gas cited in phase one to the retrenchment of the state in international negotiations in phase two, and in the interplay of firms, state bodies and the EU in the Gas Directive discussions in phase three. Quite apart from the institutional expressions of this consensus – e.g., the supervisory boards and business associations cited in Chapter 2 – the key notion is likely the interplay of interests that constitute it: the 'super-profits' of very large firms; the investment required to enable them to do what they do (with the considerable involvement of governments in financial backing); the contribution of natural gas to everyday life in Europe and its commensurate centrality to maintaining national economic systems; the dependence of the public that has resulted from the massive increase in the use of gas since 1965; and the political importance of governments' abilities to maintain the status quo.

The result of this interplay is a broad organizational approach to natural gas in Europe that, simply put, *works*: interests are being served, and actors appear willing and able to ensure that this continues. The notion of national institutional 'heft' was suggested earlier to describe what might provide, from the viewpoint of an external party looking to exact concessions from a Western European firm or government, an entrenched, unified front capable of considerable intransigence. Moreover, as was also suggested earlier, management consensus would make it difficult for an external party to isolate any particular part of the state-firm nexus. For Gazprom to enlist an E.ON-Ruhrgas or Gaz de France-Suez in lobbying their respective governments for change is one thing, but despite such firms' considerable access to political decision-makers, there must be limits – at

some point, a line would be crossed that a government could not accept, for any number of reasons: fear of a public backlash, violation of national or EU principles or laws; or conflict with other political objectives. Similarly, a Russian effort to alter the share of the benefits by working through a European state to achieve more favourable terms with transmission companies would be constrained by upward-pressing resistance from these very influential firms, from the protection that contracts and firm licenses enjoy in law, and from the employment card that private actors seem always able to play. These things are undoubtedly true in any national environment, but the tradition of consensus and cooperation in the European context should be viewed as combining with the longstanding organizational and personal links to create a unique institutional gravity that would be difficult to undermine.

Moreover, national management consensus in Western Europe is characterized by a robustness that is not universal. In addition to their obvious size and influence on one hand, they are nested within political economies where even the proclivity toward firm secrecy does not obviate the importance of freedom of the press, rule of law and a commitment to transparency. One proposition that we might draw from these dynamics concerns the point of view of the would-be coercer who, knowing well the institutional weight that national management consensus represents, would have to pick its targets carefully, and would have to shape its coercive effort with these realities in mind. The tighter and more robust the management consensus, then, the greater the disincentive to attempt coercion.

7.3.3 Implications of High Coercion Costs

The issue of coercion costs, a key element in the original Alt et al article, has several dimensions. One is the combination of magnitude and relative importance to each actor of the benefits provided under the status quo. The amount of the revenue that European gas exports are generating for the Kremlin, and its proportion of total Russian budget revenues, raises the cost of coercion for Moscow. Linking back to the discussion of signalling and mutual assurance, there are strong disincentives for Russian actors to place any European decision-makers into the awkward dilemma of negotiating versus finding alternatives: the risks are enormous. This is not universally the case; where the benefits are lesser, so is the disincentive to threaten. The costs to Russia of alienating Estonia, for example, and to some extent even Ukraine, would differ markedly from those incurred in alientating a major European buyer.

This highlights a political element in coercion costs. By maintaining sound relationships with Europe, particularly the special relationship with Germany, Russia is likely raising the tolerance threshold of negative signals that its actions in the former republics or in Ukraine might generate, thus providing Moscow with manoevering room it might not otherwise have had. Russian activity in these latter cases has certainly raised alarm in Europe, but not to the extent that the key gas actors have displayed any real concern; the public-relations visits by Medvedev to key capitols prior to the 2009 Ukraine cut-off are recalled here. There is good reason to infer, then, that the disincentive to threaten varies directly with the relative and absolute importance of benefit from the status quo.

Another dimension of coercion costs is the presence or absence of outside options. Germany, for example, could be more easily (or sensibly) threatened if Norwegian or Dutch gas did not exist. Similarly, German or French awareness of the strengths of their own position is heightened by their awareness of Russia's dependence on gas export revenue, and of the absence of alternate markets. The importance of these dynamics lies in the presence or absence of a viable 'or else' that would by definition accompany a threat. To be sure, scenarios could develop that would alter these dynamics (see section 7.4, below), but for the forseeable future the benefits that Russia and West European actors are realizing from their current NGR activity, and their near-exclusive, mutual reliance on each other, provide what might be the clearest reasons to maintain the status quo, the strongest element of institutional 'glue,' and the most noteworthy disincentives to the issuance of threat.

7.4 Price Manipulation, Asset Ownership Coercion and Demands for Political Concessions – A Question of Efficacy?

Threats in which parties have had to accept Russian price hikes or risk supply termination *have* been levelled, as noted in Chapter 4 with regard to the Baltics, and more recently in Moldova. But as with the preceding discussion on the different order of magnitude of benefits provided by Russia's gas relationship with Germany, the dynamics of price coercion differ markedly from Baltic to West European markets. Where a cut-off resulting from a Baltic refusal to accept the hikes would have presented Gazprom with a relatively minor loss, a German refusual could cost Russia political face if it were bluffing, and billions of Euros if it were not. More fundamentally, would it ever be necessary? Recalling the transmission company role as a national gatekeeper, the option

for European buyers simply to pass price increases onto buyers would remain. We should also recall the effects of the OPEC price hikes here. Demand in energy products is notoriously price-inelastic; while some industrial customers might be able to convert to an alternate fuel like coal without undue difficulty, everyday gas consumers would be more likely to accept a higher monthly bill than to convert their homes to other modes of heating.

A price demand that exceeded these tolerable levels would carry considerable risk for Russia. If this involved a departure from the current oil-indexing formula, the flashpoint cited in the preceding section would be re-inserted into the relationship, thus increasing the likelihood of future disagreement. Worse, it would force European actors into the high-pressure decision around outside options, i.e., to determine whether it was time to make greater use of Norwegian/Dutch supplies or to commit to new ones (e.g., new LNG capacity, nuclear power). Forcing buyers in the latter direction carries the additional risk to Russia that, once initiated, these investments would carry their own inertia, and would likely create a a loss of market share that Gazprom would never fully regain. Finally, there is a question of relative damage to actors' respective cashflows – a key question would be whether a European buyer could tolerate the inconvenience of making alternative supply arrangements for longer than Russia could stand the loss of export revenue.

An asset ownership threat is even less viable. Given the entrenched nature of intra-European respect for national assets and the sensitivity that has since emerged as per the 'Gazprom Clause,' it is even difficult to imagine how the threat would be expressed – one could imagine the astonishment of German negotiators confronted with

the same demands that Gazprom officials made of Ukraine before and during the two gas crises. Given Russian awareness of the heft of the national gas complexes in Europe, and given the history of solid cooperation, a sudden take-it-or-leave-it demand from the Moscow seems very unlikely. What is more believable is a concerted push to acquire downstream assets, but through negotiation rather than threat. In this event, European firms and states would almost certainly insist on a quid pro quo and, knowing this, Russia would have to come to the table with something to offer. As will be discussed in section 7.5, below, Eastern European dynamics come into play here – with Europe aware of Russian ambition and desire for downstream influence and gain, ceding ground there could constitute something of a 'safety valve' to relieve Europe of pressure from Russia while still meeting Russian needs.

Threats based on political coercion – i.e., in which Moscow would presumably threaten cut-offs to deter a European partner from a particular action or to compel it to undertake another – are also complicated by the risks they carry for the coercer. First, a threat like this would be difficult to disguise as a legitimate negotiating position. Where a price or asset concession (a) might not damage the buyer unduly and (b) would come with a commercial 'reasonableness' that could make it more palatable, a political threat would raise serious concerns over when the next demand might come, and where it might end. This carries the risk, to Russia, of removing an amicable gas-specific discussion from its comfortable place in the state-firm management consensus and expanding it into other ministries – the Foreign Office, say – whose ties to both the consensus and Russia are not the same as those enjoyed by gas actors, and whose point of view could be very different. It would also risk igniting public opinion and creating a critical mass of

dedicated opposition within national governments – exactly the kind of dissonance that Russia needs to avoid. In each of these examples, an enormous risk for Moscow is that the 'geopolitical' perspective becomes more rooted, more widespread, particularly in official quarters where fear could translate into policy. And with an atmosphere in which significant numbers of observers already suspect malign intent, the last thing Moscow should want to do is prove them right.

Moreover, assuming an overt threat like this actually extracted a concession that Germany would not otherwise have given, it could only be successful once. A substantial political concession is not something any state would wish to make a habit of, and a supplier that would threaten a cut-off of gas supply in order to compel a European buyer to adopt a particular position on an international political matter would trigger all of the concerns and decision-making dynamics of the preceding discussion on mutual trust and signalling. If the concession were anything other than routine or minor, decision-makers would have little choice but to move immediately to put mechanisms in place – increases in alternate supply, massive conservation programs, re-gasification terminals for LNG, conversion to alternate fuels, etc. – to reduce dependence on a Russia that had suddenly *proved* itself untrustworthy.

These considerations suggest that neither the incentives nor the mechanisms of Russian leverage are as strong as a casual look suggests. Beyond the absence of the unexploited advantage that worked to Moscow's advantage in the former republics, and beyond Russian reliance on export revenue, a host of practical problems discourage energy brinkmanship. For these reasons, a Russian-inspired adjustment of the status quo is more likely to take the form of a protracted, more reasonable approach based on

negotiation and incremental gain. Again, this status quo is based on: long-term contracts with mechanisms for price adjustment according to the price of oil (with, in all likelihood, increasing mutual acceptance of open trading); deep, solid relationships within a 'club' of continental transmission companies in which Russia might not be a charter member but certainly possesses special status; mutual interconnections through cooperative construction, production or marketing projects (Nord Stream, Wingas); a very long history of profitable cooperation; and a mutual awareness of the limits of market-interpenetration.

Russia faces another disincentive to issue threats. The interplay between the importance of gas to economies and populations and the time it takes to put alternatives in place – a dynamic far more pronounced with gas than oil because of the difficulty in establishing pipeline links – imposes a commitment to permanence on actors. In deliberately disrupting such arrangements, an actor is delivering a clear and very serious message that it is unconcerned about its partner's core needs. To deliver such a message in the form of overt coercion or manipulation is arguably worse than what Russia has done in Ukraine, where Moscow could at least point to a massive gas debt or be righteously indignant about gas theft. The fact that actors on both sides of the export/import divide are aware of this makes it impossible to deliver such a message lightly – it would be a dismissal of the utmost gravity, and it would strongly motivate the recipient of the threat to put alternative measures in place. This is likely why it rarely happens in the absence of mitigating factors like unpaid bills or unexploited advantage – it is also why natural gas relationships tend to last as long as they do, and why actors are so careful about whom they enter into such relationships with. It could also be a key

reason why actors *hesitate* with certain natural gas relationships, as was suggested above in the discussion of Russian gas deliveries to China.

There are, naturally, qualifications. Right now, Russia needs Europe, and the relationship is highly cooperative. If either or both of these things were to change, the Russian need could change as well. A drastic downturn in Europe's wider relations with Moscow would be a concern, but likely insufficient to disrupt this crucial activity, unless it were accompanied by either of two trends: a background of rising domestic gas prices in Russia, which would increase Gazprom's domestic revenues and reduce the gap in relative importance between the domestic and export markets; or a marked improvement in Sino-Russian relations that would jar Moscow out of its non-commital posture toward interested Chinese buyers.[376] In sum, trends that simultaneously saw a decline in Russia's need and amity for Europe could alter the equation, at which point Russia would have far fewer disincentives to engage in opportunism on price, asset ownership and political concession in the European downstream. But in the meantime, it is difficult to see how Russia's more robust posture represents a security threat to Europe. Future Russian threats based on price, asset ownership and political concessions are not impossibilities, but would be strongly discouraged by a combination of simpler, safer alternatives, blatant disincentives, and the benefits currently being realized on both sides. For these reasons, there are far more reasons for Moscow to continue to play by the rules than to discard them – it has pushed the envelope in the past decade, certainly, but there was room for

[376] We should also consider Wallander's link between the manifestations of power and wealth in contemporary Russia and a gas regime status quo. If her patrimonial authoritarianism were somehow superseded or overcome, this could change the ways in which patron-client interests were served in Russia, possibly in a way that could reduce the appeal of current arrangements.

such a push. Where its key partners in Western Europe are concerned, this does not appear to be the case.

7.5 Security and Central Europe

This discussion of Central Europe will focus on the Visegrad countries of Poland, the Czech Republic, Slovakia and Hungary, for reasons of space, and because they are Russia's key pipeline links to Europe. As will be recalled from Chapter 2, the Yamal pipeline enters the EU from Belarus, traversing Poland en route to Germany. Further south, the Brotherhood pipeline splits near Uzhgorod in Ukraine, taking a south-westerly course into Hungary and a more westerly course as the Transgas pipeline into Slovakia and the Czech Republic, linking up with German transmission lines at Olbernau. Bulgaria will also briefly be mentioned – it lies off these main pipeline routes, but its manoeverings with Russia on the South Stream pipeline have been illustrative of the dynamics and tensions under discussion here.

The picture that has unfolded in the two-odd decades since the Berlin Wall came down is problematic, as is the effect of EU enlargment on the European NGR. Most of the confusion is attributable to the changes of ownership and control over thousands of kilometres of pipeline. Once Soviet-owned, the Yamal and Transgas lines were ceded to the former East Bloc states after 1990. If that were not unnerving enough for Moscow and Gazprom, the entry of the Visegrad countries and Bulgaria into the EU in 2004 and 2007 suddenly meant that these same pipelines now lay behind EU borders. The result is a mixed picture in which EU rules, liberalization, and treaty obligations are clashing with the structural and psychological residue of the old East Bloc, with continuing Russian

interest in the pipelines it has 'surrendered,' with new Russian interest in the region, and with the somewhat awkward position that the major European firms find themselves in.[377] The purpose of this section is to explore these dynamics and identify the key points of tension in the overlap of EU jurisdiction, Russian interest, and western indecision. After summarizing the key points of the post-Soviet legacy, I trace the impact of the region's continuing gas dependence on Russia. I then move to the tension between new Russian interest and apparent Western indifference, before moving on to discuss two specific examples in which the EU-Russia 'clash' has been evident. I conclude by evaluating these events in terms of their likely repetition and resolution (or non-resolution) in the future.

7.5.1 Imperial Residue

Balmaceda has cited the gap between the advanced market and infrastructural conditions of Western European states and those that obtained in the East, referring specifically to "diversified pipeline systems and connections with European-wide networks" which, even today, are "simply not present" in Eastern Europe. Instead, states on the former Soviet pipeline routes to Central Europe are still trying to cope with the "sheer institutional weight and long-term impact of the whole energy infrastructure built during the Soviet period."[378] This notion of institutional weight is augmented by Nosko and Ševce, who suggest a cognitive effect that has encouraged a view of the gas transit

[377] The 'mixed picture' reference is drawn from one of the earliest and most insightful treatments of this 'clash,' offered in Margarita M. Balmaceda, "EU Energy Policy and Future European Energy Markets: Consequences for the Central and East European States." Forschungsschwerpunkt Konflikt und Kooperationsstrukturen in Osteuropa and der Universitat Mannheim, Untersuchungen des FKKS 27/2002.
[378] 2002: p. 10-11.

role played by these states as a default position.[379] Rather than diversifying and radically altering their market structures, they suggest, the transit states (to differing degrees) continued to view their gas security situation in terms of their management of the former Russian trunklines.

This cognitive element is rooted in a more general psychological struggle throughout the region to determine an orientation with regard to Russia and the West. Some assert that the euphoria of the 1989/1990 upheaval, which initially created a wave of pro-Western, pro-Europe governments, has long since given way to a more skeptical "reform fatigue" reflected in a general shift toward governments "championing nationalism and populism."[380] At the same time, there remain varying degrees of distrust of Russia, particularly with regard to energy. As Balmaceda writes,

> The perception of the relationship with the main energy supplier is totally different from the Western European countries' perception of their relationship with their main suppliers (be it Norway, Russia, or Algeria). For the [Central and East European] countries, energy is the most sensitive part of trade with Russia, and trade with Russia is not just trade: it is marked by the shadow of it being trade with the former hegemon.[381]

Moreover, she suggests, the region is generally ill-equipped to cope with the complexities of the new energy relationship with Russia, a deficiency based in a general "institutional weakness," particularly in energy matters, where most skilled personnel have eschewed policymaking work for the private sector, where patterns of organzational opacity have

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[379] Andrej Nosko and Peter Ševce, "The Evolution of Energy Security in the Slovak Republic," Journal of Energy Security, September, 2010. Accessed 5 November, 2010, from http://www.ensec.org/index.php?option=com_content&view=section&layout=blog&id=29&Itemid=366. .

[380] Some of this is due to the departure of the first wave of post-independence leaders like Lech Walesa and Vaclav Havel. See F. Stephen Larrabee, "Danger and Opportunity in Eastern Europe," Foreign Affairs, Vol. 85, No. 6, pp. 118. Larrabee cites electoral changes in Poland in 2005 and Slovakia in 2006, as well as the difficulties experienced with scandal and corruption in the Czech Republic and Bulgaria.

[381] 2002: p.15.

emerged, and where energy firms themselves have filled the knowledge gap by serving as the main interlocutors with the EU.[382]

There are also concerns that Russian interest in the region is not always expressed according to EU norms. A 2006 article in *The Independent* laments the "use of KGB methods to wrest control of [Central and East European] energy companies and infrastructure," as Russian energy firms "have sought to extend their influence by trying, secretly, to secure control of Central European oil and gas companies." A different author cited a "highly opaque deal" in which Gazprom attempted to acquire a large stake in Hungary's domestic distribution system, laying out a complicated set of inter-company links with mafia overtones, and suggesting that Hungary had been "a key target" for Gazprom "since the collapse of communism …"[383] This highlights a legitimate concern for any analyst pondering the security question. Where inattention to the precise link between negative signal and vulnerability was cited above, the behaviour alleged here occurs in the shadows. An execution of leverage that saw prices rise, saw corporate equity transferred, or saw a major foreign policy matter take a turn that favoured Moscow would likely be highly visible. But the spectre of leverage exerted by criminal means, by organized agendas that achieve their aims through threats of an entirely different character, ought to be more unnerving. Without the counter-balancing potential of public opinion, or at least public knowledge that something has occurred, the sorts of constraining factors discussed above have far less potential to factor into the calculus of a

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[382] Ibid, p. 4, 15-16.

[383] Neil Barnett, "From Poland to Hungary, Gazprom Takes Stealth Route to Domination," The Independent, 8 January, 2006 [online], accessed 5 November, 2010, from http://www.independent.co.uk/news/business/analysis-and-features/from-poland-to-hungary-gazprom-takes-stealth-route-to-domination-522003.html, and Roman Kupchinsky, "Gazprom Shadow Falls Over Hungary," Asia Times Online, 8 May, 2009. Accessed 2 November, 2010, from http://www.atimes.com/atimes/Central_Asia/KE08Ag01.html.

would-be coercer. For a number of obvious reasons, therefore, this sort of threat is difficult (and possibly dangerous) to investigate, and a coercer willing to employ such tactics – personal threats, for example, as opposed to visible institutional leverage – presents an entirely different sort of security threat. Again, I have deliberately confined my analysis to the sorts of visible examples examined above, and which have dominated most of the discussion of the topic to date.[384]

7.5.2 Lingering Gas Dependency in Central Europe

In contrast to Boris Yeltsin's "benign neglect" of Eastern Europe, Vladimir Putin had, by the mid-2000s, "embarked on a systematic effort to restore Russian influence in eastern Europe and its periphery."[385] Formerly an 'appendix' to Soviet/Russian gas interests in Europe, the region is now viewed in terms of its *market* potential to Moscow, particulary Poland and Hungary, a prospect made even more appealing to Gazprom by a dependence on Russia that has actually increased since the Berlin Wall fell.[386] Where the

Table 7.1 Central European Gas Consumption Volumes and Percentages, 2006 and 2008 (bcm)[387]

Consumption by Volume	Russian Imports by Volume	Country	Russian Imports as % of National Consumption	Gas as % of National Energy Consumption
3.3	3.1	**Bulgaria**	93.9	15.6
8.7	6.6	**Czech Republic**	75.9	21.7
12.0	8.9	**Hungary**	74.2	36.9
13.9	7.2	**Poland**	51.8	15.6
5.7	5.6	**Slovakia**	98.3	35.0

[384] The RFE/RL article discussed in 6.5.4 offers additional insight into this topic.
[385] Larrabee (2006: 127).
[386] Balmaceda (2002: 13-14).
[387] Sources: Consumption, Russian Imports: BP Statistical Review of World Energy, June 2009: http://www.bp.com/productlanding.do?categoryId=6929&contentId=7044622. EU percentages of total; energy consumption: 2006 IEA Energy Statistics and Balances: http://www.iea.org/Textbase/stats/index.asp;

region's gas imports accounted for 53 percent of total consumption in 1990, it had grown to 65 percent in 1998.[388] More recently, as suggested in Table 7.1, above, the figure has exceeded 70 percent.

The varied Central European response to this situation is exemplified by the different paths chosen by the Czech Republic and Slovakia. The Czech government, it will be recalled, chose a path toward gas independence shortly after the 1993 Velvet Divorce. I have cited in previous chapters the relative ease with which Czech actors could capitalize on geographic proximity to link up with West European suppliers. Nosko and Ševce cite a number of other factors that shaped this approach. The perception of a Russian threat, for example, was much higher in the Czech Republic than in Slovakia, even before the first Ukrainian crisis. This provided the government with the political impetus and support to invest in a new, eastward-flowing pipeline from Germany, and to contract for 53 bcm of Norwegian gas in 1997. Crucially, this decision, and the new pipeline, preceded the privatization of the state-owned Transgas by Germany's RWE, a firm that has since been unbundled in the country, with NET4GAS S.R.O. now the operator of Czech east-west trunklines. The country also plans to construct a 166-km pipeline to link Germany's pending OPAL line (from Nord Stream, ironically) to other German lines in the south of the country, a step that would enable Prague to reap additional gas transit rents.[389]

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[388] Balmaceda (2002: 13).

[389] Nosko and Ševce, "Lessons from Prague: How the Czech Republic has Enhanced its Energy Security," Journal of Energy Security [online], 26 July, 2010. Accesssed 23 September, 2010, from: http://www.ensec.org/index.php?option=com_content&view=section&layout=blog&id=28&Itemid=365.

Slovakia lacked a similar diversification option. Referring to it as "an excellent example of what can happen to a country when it doesn't pay attention to its own energy security," Nosko and Ševce stress the different sequencing that unfolded in the Slovak case. First, officials in Bratislava sought – in contrast to their counterparts in Prague – to cultivate a 'special relationship' of their own with Moscow. Privatization eventually occurred, but in a reduced environment of perceived threat, and before any significant infrastructural investments had been made. The result, the authors argue, was a striking contrast between the political imperative that allowed Czech leaders to invest in a new pipeline, and the profit imperative that constrained the newly privatized Slovak operator from spending money for an elusive social benefit like gas security. This ambivalence changed after the Ukraine crises. Slovakia was, Bulgaria aside, the hardest-hit country in Europe in 2009, and it is now working to diversify supply through a possible interconnector pipeline to Hungary, and through ongoing discussion about a north-south interconnector linking Poland with the other states, all the way south to Croatia.[390]

7.5.3 EU Rules, Local Needs, and Russian Interests

Balmaceda's 2002 article summarizes one of the clearest cases of conflicting interests in the overlap of EU rules, East European needs, and Russian interests. In 2000-2001, the Polish government, weakened institutionally for reasons cited earlier, left the national gas firm PGNiG to negotiate with the EU on its arrangements with Gazprom. At issue was liberalization of the Polish market, something that the company was loath to go forward with because it would lead to mandatory competition on the Yamal line. The company went so far as to ask the EU to allow a deferment for the Polish market, a

[390] Andrej Nosko and Peter Ševce, "The Evolution of Energy Security in the Slovak Republic,"

request the EU immediately dismissed. This episode highlighted the potential for common interest to develop between a local interest group – the national gas monopolist, in this case – and Gazprom, as reflected in Balmaceda's assertion that "it was not even necessary for Gazprom to lobby PGNiG to pursue this position in official negotiations, because it was also in the interest of PGNiG … to keep the monopoly."[391]

PGNiG and Gazprom have since provided a more concrete example. From 2008 to 2010, the two firms worked to renegotiate a long-term supply contract for natural gas, but the talks drew the attention of EU regulators who eventually blocked the agreement on the grounds that it violated EU competition law. Following an EU threat to take the matter to the European Court of Justice if the parties did not allow competition in the line, the two companies redefined the agreement, scaling back its time horizon, and presenting it to the EU as a new deal that would allow competition by assigning management of the pipeline to Gaz-System, the state-owned pipeline operator.[392] This time, the Polish government made a point of approving the agreement. The pipeline itself is owned by a joint-venture, EuRoPolGas, a 50-50 joint venture of PGNiG and Gazprom.

However, as the Wall Street Journal reported as late as October of 2010, the EU had yet to see the terms of the new deal, let alone approve it. Moreover, a EuRoPolGas official is quoted as saying that what the agreement grants, in terms of TPA, is spare capacity to third parties *whenever it is available*. But the owners of the pipeline – PGNiG and Gazprom – with their vested interest in monopolizing it, will be the ones who determine when and whether spare capacity exists. According to the official, this would

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[391] 2002: 26.

[392] See Adam Easton, "Poland and Russia Sign New Gas Deal for Extra 2 Bcm/Year," Platts [online], 29 October, 2010. Accessed 20 November, 2010, from http://www.platts.com/RSSFeedDetailedNews/RSSFeed/NaturalGas/8123820.

be a rare event: "As of today, [the capacities] are 100% used."[393] The article goes on to portray this reality as a compromise that the EU will have to accept unless it wants to confront Gazprom and its Polish partner over one of the key arteries to Europe. If Brussels were to tread heavily, it would do so in the knowledge that Poland has no other viable supply option: no north-south interconnector has been established, and the 31 km pipeline to the Czech Republic has yet to be completed. Moreover, Poland has been stymied on its plan to establish a Baltic coast LNG terminal at Swinoujscie: *by Germany*. Ostensibly, this resistance is based on environmental concerns; Bonn has demanded an environmental impact assessment, a delay that Poland will be forced to accede to under the terms of the Espoo Convention, which could delay the project for up to three years.[394] While German concern about the plant's effect on the environment is laudable, it is worth noting that, in addition to affecting Gazprom's bottom line and strengthening the Polish bargaining position, an LNG terminal on the Baltic would seriously undermine any potential that stakeholders in the Nord Stream pipeline had for supplying Poland with Russian gas from the west.[395]

A second clash of EU regulation, member-state gas interests and Gazprom is unfolding in Bulgaria in the discussions touched on in Chapter 6. In 2008, the Bulgarian Prime Minister Sergei Stanishev had signed an agreement with Moscow, ensuring the "unrestricted transit" of Russian gas, in clear contravention of the TPA requirements that

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[393] Marcin Sobczyk and Marynia Kruk, "Gazprom Keeps Grip on Polish Pipelines," Wall Street Journal [online], 27 October, 2010. Accessed 20 November, 2010, from: http://blogs.wsj.com/new-europe/2010/10/27/gazprom-keeps-grip-on-polish-pipeline/.

[394] The Espoo Convention on Environmental Impact Assessment is a United Nations instrument that entered into force in 1997, and sits under the auspices of the United Nations Economic Commission for Europe. See http://www.unece.org/env/eia/eia.htm.

[395] United Press International, "Poland, Germany face off over LNG terminal," UPI.com, 1 September, 2010. Accessed 19 November, 2010, from http://www.upi.com/Science_News/Resource-Wars/2010/09/01/Poland-Germany-face-off-over-LNG-terminal/UPI-45871283354986/.

Bulgaria is obligated to impose by the terms of the Third Directive. The deal was signed without consultation with EU; when asked how that could happen, a spokesperson from the office of the EU Energy Commissioner replied that the EU "had no legal competence to check beforehand ahead of such agreements being signed." Moreover, when the Commission did find out, it allegedly wrote to Bulgarian authorities with questions about the agreement. According to the same spokesperson, the questions were never answered.[396]

Subsequent events have complicated things further. On 21 October, 2010, Putin and the new Bulgarian Prime Minister, Boyko Borissov, agreed to create a joint-venture firm to "conduct a feasibility study for the Bulgarian section of the South Stream pipeline." Several things are interesting here. First, it will be recalled from Chapter 6 that Bulgaria is a stakeholder in the rival Nabucco line, an EU-endorsed project that Bulgaria 'defected' to in 2009. But signing a deal with Putin for South Stream suggests that the country is playing both sides of the fence. Second, Russia is a crucial player in this uneasy game, offering a mixture of carrots and sticks to Bulgaria through promises of outlandish transit fees on one hand, and threats to double the capacity of Nord Stream or run South Stream through Romania if Bulgaria fails to accede.[397] Finally, while it remains put out by the 2008 agreement, and has informed Bulgaria that it will need to be changed, the EU has been involved in the 2010 deal established by Putin and Borissov,

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[396] Marlene Holzner, quoted in EurActiv, "Commission Urges Bulgaria to Change Gazprom Clause," 15 November, 2010. Accessed 19 November, 2010, from http://www.euractiv.com/en/energy/commission-urges-bulgaria-change-gazprom-clause-news-499737.

[397] Ibid. Putin's initial projection for transit revenue €2.4B, but an investigation by a Bulgarian news agency suggests that the number would be closer to €400-500M. Interestingly, once the deal was signed, the Romania threat was played down, with Gazprom CEO Alexey Miller saying that "Romania would have no chance of replacing Bulgaria in South Stream, but the country could join the project as one of the members." See New Europe, "Russia, Bulgaria Sign South Stream Agreement During Putin Visit," 21 November, 2010, accessed 22 November, 2010, from: http://www.neurope.eu/articles/Russia-Bulgaria-sign-South-Stream-agreement-during-Putin-visit/103734.php.

signed on 13 November. One amendment that the EU was able to make concerned the references to 'exclusive' transit of Russian gas, which was altered to read that such exclusivity would constitute an exemption that required EU approval. The Energy Commission spokesperson was careful to point out that pipelines can be reserved for exclusive use, but that an "official request" is required, and that it must go through the exemption request process with the national regulator, and subsequently endorsed by the Commission.[398]

7.5.4 Implications of Central European Dynamics

In addition to endorsing the arguments of Balmaceda from 2002, these episodes suggest a likelihood of future incidence of tension between EU rules, local interests and Russian interests. As discussed in Chapter 6, the EU has levied heavy fines on the more traditional actors like E.ON Ruhrgas and RWE but, to date, the closest thing to an overt conflict with Gazprom has been the two cases in Poland and Bulgaria. Still, we can draw inferences from these episodes.

First, the phrase 'potential for tension' may not be inaccurate, but it remains vague. Despite the drawn-out *process* that the word connotes, there is still a tendency in utilization of the term 'tension' to imply that decisive, dire action – i.e., some sort of 'snap' – is imminent. That is, tensions deriving from the uneasy overlap of EU regulation and local and/or Russian interest will increase the odds of a decisive EU action, a Russian abandonment of a European buyer, or a member-state stand-off with Brussels. Intuitively, this makes sense, and in the two examples discussed above, elements of all of these things are evident. But the Polish and Bulgarian cases also suggest that neither the

[398] EurActiv, "Commission Urges Bulgaria to Change Gazprom Clause."

tension nor the dire action are as singular or decisive as we might infer. Such tensions as do arise seem to have a more diffuse character; neither the realization of tension nor the coping responses of the involved actors occur as singular, isolated moments in time. What we see instead is an iterative process that is prolonged as actors seek information, and/or as they manoever based on the actions of others: e.g., drawn-out exchanges of warnings, requests for clarification, explanations, appeals and repackaging of the gas arrangements in question. In Poland, the EU began to ask questions, and the PGNiG requested a deferment; when it was refused, the company continued to negotiate with Gazprom; when their new deal was announced, the EU objected again; finally, the PGNiG-Gazprom joint-venture conceded to TPA by altering the management of the Yamal pipeline. Altogether, this sequence has been unfolding for more than two years, and is still not fully resolved.

Second, these events also suggest a degree of EU reluctance to take a hard line where Gazprom and the big European trunklines are concerned. In both cases, Brussels has demonstrated a willingness to withold judgement, to negotiate, and to compromise. In Poland, Brussels appears to be willing to accept nominal TPA to pacify the PGNiG-Gazprom nexus and keep Yamal gas flowing. In Bulgaria, it is complaining about a two-year-old deal but is still emphasizing the possibility of a TPA exemption. One could certainly understand why the EU would want to tread carefully. Holding back on the letter of the law might slow the pace of liberalization, and it would be galling to let Gazprom have its way on EU soil, but the alternative is worse. A course of hard-nosed confrontation would increase the risk that a decisive, disruptive action *could* come to

pass, a situation with considerable potential to damage EU solidarity. As things stand now, one has to question the extent of EU willingness to engage in brinkmanship.

Third, there appears to be a discernible lack of Western commitment to counterbalancing Russian influence in Eastern Europe. It was suggested in Chapter 6 that ceding ground to Gazprom in the region could serve a purpose. Russian assertion represents a pressure on the regime that must either be acceded to, countered or diverted. Given the lingering intractability of the major firms where their national markets are concerned, acquiescence is not an attractive option – Moscow did establish Wingas, but no replication of this achievement appears imminent. Countering the Russian push by competing for markets and pipelines in Eastern Europe is also an unattractive option for the West – doing so would put continental firms in the uncomfortable position of going head-to-head with Gazprom, and since the region is already served by existing pipelines, there may be insufficient commercial incentive for them to build new infrastructure. This leaves the diversion option, i.e., to allow Russian pressure an outlet that costs Europe little, and which might prevent larger problems. As we have seen, there is no shortage of trepidation in Eastern Europe that this is exactly what is happening; they sense, probably accurately, that such a policy will complicate life for governments, firms and citizens in the region. But in terms of evaluating the pulls and pushes that are operating on the system as a whole, there is an element of equilibration in the Western hesitation to compete there, what systems theorists might consider 'positive feedback.'

This assertion of systemic stability would likely be of little comfort to governments, citizens and gas actors in Central Europe. Given the clear desire of Gazprom to obtain assets and influence in the region, particularly if the allegations of

unsavoury tactics have foundation, it seems clear that gas actor fears of losing control over their own firms and infrastructure are not unfounded. Exactly how this will translate into disadvantage is as yet unclear – gas rents could be diverted to Gazprom or other exogenous actors, for example, or prices to consumers could be hiked – but the potential for such developments to emerge suggests a range of security deficiencies in Central Europe that separates the dynamics of the region from those that obtain further West. And Western ambivalence – to the benefit of systemic equilibrium or not – is surely compounding the problem. Realizing this, the Visegrad countries, like other Central European states, are attempting to take matters into their own hands. As far back as 1991 they had formed the Visegrad Group (or V4), a body dedicated to regional cooperation within the umbrella of wider European integration. But energy has acquired more meaning since the two Ukraine crises. In February of 2010, the V4 held a regional Energy Security Summit in Budapest that produced the following text:

> Central-East European countries should shape their energy policies together, and they should operate coordinated strategies to reassure the management and solution of the situation ... Last January, and also three years before that, we all could experience first hand how vulnerable and exposed we are ... We have also declared that it is not enough just to create feeding points, but we should also connect the countries and pipelines of the region from the north to the south, from the Baltic Sea to the Adriatic Sea. Energy should flow freely among countries. Central-East European countries should shape their energy policies together, and they should operate coordinated strategies to reassure the management and solution of the situation.[399]

This regional pipeline interlinkage is in its infancy, but is underway. The Visegrad countries are connecting to Central European grids wherever possible, as with Hungary's HAG line from Austria, and the RWE Transgas line built by the Czechs from Germany.

[399] Press Statement of Prime Minister Gordon Bajnai as delivered after the extended energy security summit of the V4 Countries, 24 February, 2010. Accessed 23 November, 2010, from: http://www.visegradgroup.eu/main.php?folderID=859&articleID=27721&ctag=articlelist&iid=1.

For Poland, justifiably unnerved by Nord Stream, and forced to deal with Russia in the joint-venture EuRoPolGas, an LNG terminal on the Baltic Coast makes perfect sense, as does the talk of a northward-flowing pipeline from Croatia. Moreover, the new EU members have moved rapidly to accede to the Gas Directives, unbundling and moving toward open trading in many countries, a trend that has not been lost on Gazprom, which has softened its line on liberalization in recent months. Putin, for example, has altered his tone from one of mild threat to mild complaint about the possibility that "small players" could "threaten security of supplies" and cause price increases. Commenting in October, 2010, he said that the EU "proposals aiming to liberalise gas transportation networks are well-intended. But it is difficult to estimate the consequences of their implementation."[400] If such language suggests that a less abrasive posture toward liberalization is developing in Moscow, one possible explanation is that Russia's downstream investments stand to gain from open markets and open trading, complementing the gains they cemented decades ago through long-term contracts.

In sum, it is not unreasonable to posit tension in the current overlap of interests and arrangements in Eastern Europe, but this does not imply a doomed future for the NGR. Key players – particularly the EU and Gazprom – have strong reasons to prefer patience and compromise to brinkmanship. And as time goes on, the V4 states will undoubtedly increase their pipeline links, and proceed with liberalization in ways that Russia will be hard-pressed to prevent. Moreover, Russia may come to see that liberalization offers advantages in downstream markets, especially if their long-term contracts continue to be grandfathered, and if the EU and the national regulatory authorities continue to be open-minded about exemptions. Given the obvious interest of

[400] "Commission Urges Bulgaria to Change Gazprom Clause."

all parties in maintaining the flow of gas, there is more reason to expect that they will than that they will not. ‘Security’ in the region is not as rock-solid as it would be if Russia were an EU member or if it had ratified the ECT, but the emerging dynamics do not suggest imminent peril for Europe either.

CHAPTER 8 CONCLUSION

Distance from gas field to market combines with expenditures of money, time and political capital to make mutual assurance and stability essential to the cross-border natural gas trade. Because pipelines are such complex undertakings, partners are carefully chosen, and arrangements, once established, tend not to dissolve. In the Euro-Russian trade, Gazprom – state-owned, ambitious, and a key contributor to Russian state coffers – is a crucial agent of the country's foreign policy. In Europe, large, powerful firms still exist as national champions, and operate in protected markets in the tight interlinkage of management consensus with states, and with remarkable degrees of opacity despite an EU push for liberalization and transparency. In the middle, having emerged from the Soviet orbit, transit states and others are working to manage the tensions that emerge from overlapping interests and arrangements, seeking to maximize natural gas options while still managing their relationship with Gazprom and with the West. Some countries, like Belarus, have largely ceded gas control to the Russian firm; others, like the Czech Republic, made a point of doing the opposite. Most of the others are a mixture of both.

The first phase in the evolution of the European NGR was characterized by rapid growth in consumption and the establishment of natural gas as a viable concern across Europe. On the heels of a Dutch export monopoly, the Soviet Union and Norway emerged as competitors whose differing motives still enabled a surprising complementarity of interest. But rather than evolving into an OPEC-like suppliers' consortium, these countries saw bargaining advantage shift in the mid-1980s as importers organized into cartels, negotiating prices down after the third oil crisis. Germany emerged as a continental hegemon, building on domestic market and geographic advantage to

become the core of European gas transport, the key player in continental swaps, the dominant southward carrier of North Sea gas, and the primary entry point for deliveries from the Soviet Union. Other actors acceded to German market, transport and cartel leadership, finding themselves with no obvious incentive to object – there was nothing to be done about the German geographic position, and if it was at all galling for other importers to watch Ruhrgas reap the benefits of gas transit, it was mitigated by high degrees of intra-firm ownership, inter-firm cooperation, and protection in their own national markets. Moreover, they needed the gas, and letting Germany build the necessary pipelines was far less expensive than negotiating and building their own. Nested within a European commercial and political community, natural gas arrangements evolved as important contributors to public and economic well-being, and stood as one of the more promising examples of pan-European and East-West cooperation. Under such circumstances, the chances of schisms developing over German natural gas hegemony were slim indeed.

The second phase (1991-1999) was chaotic in comparison to the first. The demise of the Soviet Union, new competition in European gas transmission, and the entry of the EU into the regime all had potential to alter the terrain on which German hegemony had been built. I have argued that the most significant instability existed to the East, deriving from the drastic change in Russian incentives that the Soviet dissolution presented. With the rationale for decades of embedded philosophy and practice suddenly gone, Moscow was forced to improvise, and to identify viable interests, costs and benefits in an alien landscape. Worse, as was emphasized in Chapter 4, it had to do this on the fly, as inflation skyrocketed, the treasury drained, and opportunistic investors appropriated

entire sectors of the economy. But Russia regrouped as the decade wore on, drawing on its aging but functional pipeline network, its gas reserves, and its one source of reliability – the long-term contracts with European buyers – to restore economic and political stability, despite new financial crisis in 1999. I have also argued that neither this chaos nor the changes that occurred in Europe – the sudden EU entry into the regime and the formation of Wingas – undermined German hegemony to any noteworthy degree. Nearly all of the factors that had facilitated the German ascension in phase one were still in play, as were the motives for other actors to go along with it.

The third phase (2000-2009) featured a marked restructuring of the NGR, as a now-regrouped Russia altered its posture, rejecting the foreign-inspired gas governance of the ECT, and acquired assets in other countries, including those of alternate supply to Europe. Liberalization began to have an impact through two new Gas Directives, state and corporate re-organization, investigations, enforcement, and progress by national regulatory authorities. The first new large-scale pipeline projects since the early-1990s were proposed, projects that would redefine the existing supply dynamics. I have worked through the Alt et al concepts to argue that while Germany has had to accept a certain degree of relative gain by Italy, it has not been dislodged from its position of hegemonic dominance by any European actor, including the EU, or by Russia. Many legislative backdoors remain for the major actors to use, and the large state-firm gas complexes – Germany's in particular – have proved very adept at slowing and diluting EU-inspired legislation thus far. The EU's legislation is bound to progress, but firms are amorphous entities, having demonstrated their own will and ability to re-shape through mergers,

divestitures and re-organization to deliver gas to market, and deliver profits to shareholders.

The alteration in Russia's relative position could be the most significant development of the Third Phase. The deepening of the German-Russian special relationship, the timbre of the Nord Stream project, the enhancement of ownership cross-linkages, and the maintenance of Germany as the leading recipient of Russian gas all combine to suggest an emergent 'co-hegemony' within the NGR. There would appear to be little that other European states could do about this; the likely dynamic is that co-hegemony will be accepted for the same reason that German hegemony was: acceding to it is easier and cheaper than contesting it. Further, the apparent unwillingness of Western firms to expand their activities into Eastern Europe has created something of an opportunity vacuum for Russia/Gazprom to expand into, a step that the large gas-consuming states could be tolerating because of its potential to equilibrate the NGR, i.e., providing Russia with room to expand without forcing them to cede ground in European core markets. The co-hegemony posited here need not necessarily be viewed as a 50-50 division of influence in Europe, but more closely resembles the Alt et al pole of 'alliance' than 'empire.' Still, the co-hegemony – and more pertinently its acceptance of disproportionate Russian influence in the east – is not without tensions, as explored in Chapter 7.

8.1 THEORETICAL IMPLICATIONS

The use of regime theory in this dissertation is unconventional – the concepts have served more to provide a framework, and to play more of a definitional and

descriptive role, than to provide explanatory/predictive power with regard to the European NGR, or to contribute in a generalizable way to regime theory. The findings could be taken as an endorsement of the liberal view that arrangements, engrained habits and mutual expectations can shape the pattern of regime transactions even in the absence of the sort of traditional hegemon that realists would insist on, or as confirmation of the realist expectation that flux within the NGR is evident precisely *because of* the lack of 'normal' regime leadership. Regardless, I have engaged the regime concept without any serious intent to generalize the findings beyond the natural gas realm, partially because of the atypical way in which the trade has evolved, and partially because of the idiosyncratic nature of this particular activity. Few commodities come to mind as offering a potential parallel to natural gas in terms of the arrangements and dynamics that might develop around it, with the possible exception of water, should it ever become common practice to trade it in the same manner. If this occurred, the same reliance on regional pipelines and contracts would surely obtain, and the same dynamics of need – multiplied considerably – would exert influence on actor willingness to enter into such relationships, or to disrupt them once they were in place.

However, I have also argued that this approach was best suited to providing the more nuanced view of the European and Euro-Russian gas relationships that was sought at the outset: it offers an alternative to the geopolitical vs. commerical impasse cited in the introduction; it draws on conventional concepts to elucidate an unconventional regime; it has engaged the dynamics of cooperation and competition among geographically and functionally varied units at the supranational, state and sub-state levels; and it has shed light on an issue-area not traditionally explored or well understood

in International Relations. The nuanced view this approach has enabled is fundamental to any adequate treatment of the research questions explored here.

Throughout, this dissertation has asked the reader to accept the generality deriving from the selected analytical altitude. I have attempted to balance depth and breadth, to circumvent the notoriously opaque nature of the gas industry. At the same time, the analysis has benefitted from those data that are specific and available: production and consumption figures, pipeline projects, mergers, equity swaps, buyouts, and those contract announcements that are made public. We know where gas supplies come from, and which pipelines are built to carry them, even if we rarely learn how much carriage and delivery actually cost. I have attempted to use this more concrete and conventional data to support the more qualitative approach to the topic, if only to avoid the tendency in energy discussions to depend heavily on (and bombard the reader with) charts, graphs and statistics.

The analysis has also benefitted from the fact that gas matters are more in the open now; the gas trade is still esoteric, secretive and poorly understood, and still a less glamorous subject than oil, but it is receiving far more attention than it used to. Supported by these sorts of accessible data, the concepts offered by Alt et al have provided a means to break the broad topic of Euro-Russian natural gas into manageable pieces, and positioned us to answer the research question in ways that differ from those offered in what have become, over the past decade, typical treatments. These traits have made the analysis less conventional and perhaps less neatly rigorous than most works of this sort, but I believe that the benefits outweigh the limitations.

Still, one of the central issues in this paper – the stability of the NGR over time – can be related to more traditional interpretations of regimes. Both realist and liberal interpretations accept international anarchy, national self-interest and the centrality of the nation-state as starting assumptions. From there, they diverge. The realist insistence that the existing distribution of power in the international system determines whether regimes form or function properly is consistent with the longstanding pre-eminence of a German hegemon, but is at odds with the atypical form and function of German hegemony defined here. Where realist regime theory traditionally focused on concern about relative gains, free-riding, or disciplining subordinates, Germany's brand of NGR hegemony had the benefit of physically managing (through transit pipelines) the actual 'gain' that other actors might have cheated with, and its geographic position limited the potential for other actors to make relative gains (until recently). Other regime members might have been able to 'cheat' in negotiations with one of the main suppliers, perhaps by seeking drastic reductions in gas price in exchange for barter goods (as was the norm in the former East Europe, for example), but the introduction of oil indexing, cartel formation and cross-ownership made this unlikely and unnecessary. If the heart of the NGR was the similarity in individual national (and firm) approaches to management of natural gas, the explanation could be as simple as the lack of an alternative that could obtain for an individual actor a better deal than it was already getting.

The liberal variant of regime theory is more consistent with NGR hegemony in its view that cooperation is possible through regimes, with or without a hegemon, through the convergence of actor expectations, through the establishment of commonly agreed-upon standards of behaviour, and through the benefits of iteration. Some theorists have

insisted that this becomes less likely as the size of the membership increases; in this regard, it is perhaps conducive to NGR stability that the number of actors is relatively small, and that the functional divide of supplier and consumer serves to minimize intra-regime conflict through its pattern of bilateral arrangements, as opposed to a constellation of interested actors revolving around a centre of rules and expectation. Liberals have also raised the possibility of 'meta-norms' or a 'meta-regime' to emphasize the role of norms or values in solidifying intra-regime relationships and practices, a notion that parallels the frequent references in this dissertation to the Keohane-esque notion of reputation. [footnotes here and above]

One particluar liberal argument is worth citing here. A 1982 article by John Ruggie took issue with both realist and traditional liberal views of regimes, arguing that neither the configuration of power nor the iterative impact of rules and habits sufficed to explain how regimes shaped the pattern of international transactions. Beyond regime rules and power configurations, he argued, the crucial element was a compatible sense of 'social purpose' within member states. Citing the breakdown of traditional liberalism, he argued that the global pattern of state intervention in domestic political economy in the interwar period – regardless of form and intent – heralded the end of laissez-faire capitalism. Later, a renewed harmony of social purpose among member states– catalyzed by the influence and commitment of the United States – enabled the Bretton Woods regime to emerge.

This idea has potentially profound implications for the NGR. The U.S.S.R., for example, brought to the NGR a very different social purpose from that of its European counterparts. But the non-rent-seeking nature of the Soviet approach proved compatible

with the manner in which the regime was evolving, resulting in a sufficient 'condominium of interest' that the NGR could develop smoothly. For reasons discussed above, this did not change when the Union dissolved. Since then, however, the pattern of Russia's domestic interest articulation has changed. The compatibility of social purpose in Europe and Russia is now very questionable, a trend that could be presented as an important qualification to the arguments made in this dissertation. I have argued that the sorts of security threats normally posited for the NGR are hindered by important constraints of efficacy, mutual interest and high coercion costs deriving from the reinforcing benefits of the status quo. At the same time, I have acknowledged the potential of less legitimate actors and interests to corrode this reinforcement, a possibility that Ruggie's 'embedded liberalism' argument provides a theoretical basis for. Recalling Celeste Wallander's discussion of the interplay of domestic Russian interest articulation and its implications for the country's foreign economic behaviour, the possibility of an emergent and profound incompatibility in Euro-Russian social purpose emerges, and needs to be evaluated. This possibility, I would argue, *could* offer a more sound logical and theoretical basis from which to evaluate the security threat to Europe than the sorts of geopolitical or foreign policy-based arguments discussed above. Where the former deal primarily in the uber-interests of states, the arguments offered by Ruggie and Wallander highlight the crucial potential of domestic patterns to work within these uber-interests to undermine the institutional glue of the NGR. The exact manner in which this might occur, with particular attention to the deepening of the 'special' relationship and the interaction of interests between German and Russian actors, particularly at the sub-state level, is an aspect of NGR stability that is deserving of very serious attention.[401]

[401] John Ruggie, "International Regimes, Transactions and Change: Embedded Liberalism in the Postwar

The concept of co-hegemony utilized here is another departure from the regime theory mainstream. Hegemony, it has been argued throughout, is employed in an unconventional way in this dissertation, in the sense that it has not been intended to reflect regime *leadership* per se. Rather, as specified in the introductory chapter, 'hegemony' reflects here a condition of pre-eminence of one actor among others in a shared realm of activity, with pre-eminence demonstrated by that actor's qualitative and/or quantitative separation from the rest of the group in size, distribution of benefits, coercive influence, ability to capitalize on reputation, and ability to avoid hegemonic decline. Boiled down, these criteria were used to identify the actor best positioned to derive the greatest share of the available benefits, and to continually get what it wants from the activity in question. Co-hegemony has been introduced to take account of the Russian rise within the NGR. Again, the term has not implied parity with the German incumbent; it reflects the Russian separation – in terms of the same criteria that served to demonstrate German pre-eminence – from the other actors in the regime. This would pose a logical problem for realists, for whom the element of singularity in hegemony is fundamental. It would be less troublesome in a liberal view, which can accommodate the presence of a hegemon, or even co-hegemons, but which would not attribute regime stability or the pattern of transactions as a product of either. I would also suggest that the functional supplier/consumer divide ought to make the concept more palatable, even to realists. Where a mix of competition and cooperation among regime actors, including the hegemon, is assumed, the Russia's functional uniqueness as a main supplier of natural gas to Europe represents a unique element of cooperation in the regime, lending it an

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Economic Order," International Organization, Vol. 36, No. 2, pp. 379-415, and Celeste A. Wallander, "Russian Transimperialism and its Implications," Washington Quarterly, Vol 30, No.2, 2007, pp. 107–122.

automatic degree of qualitative separation from other regime actors. As the counterfactual presented in the introductory chapter suggests, there is little question that Russia has made gains within the regime's historical 'pecking order,' even according to the criteria for hegemony applied here. And finally, the clear deepening of the special relationship – particularly as manifested in the Nord Stream pipeline – lends practical and material salience to this contention.

8.2 Euro-Russian Natural Gas – Future Directions

There is insufficient evidence to suggest that Russia is in the process of acquiring hegemonic dominance in Euro-Russian gas relations with Europe. Potential levers – control of the reserves, control of the taps, increasing continental need, a willingness to coerce, a fairly nationalistic (chauvinistic, some might argue) foreign gas policy, the 'Gas OPEC' and China threats, and a slew of overseas acquisitions – all come with major limitations, most of which centre on Russia's commensurate need for gas export revenue, predictability in its downstream markets, the difficulty of dislodging large and well-entrenched national arrangements in ways that could provide Russia with a net gain, and the exhorbitant cost of alternatives, none of which can be put in place quickly or easily. The evidence suggests, therefore, no obvious avenue through which its ambitions should be seen as a security threat to Europe unless external conditions change, unless the vested interests currently served by the status quo determine that they would be served better in some other way, or unless the Ruggie/Wallander notions are reflected in actual corrosion of NGR integrity. There may yet be adjustments to the distribution of benefits, and new

horse-trading could unfold. But, for the moment, it is difficult to see how the major players could get a better deal than they are getting right now.

Little has been made in this dissertation of the likely impact of liberalization, a process that has been addressed in great detail by others, but which certainly carries the potential to alter the character of the NGR. Gazprom, initially vitriolic in its comments on the Gas Directives, appears to be hedging its bets these days. Partners like the one it has in Germany – special relationship or not – exist under the EU umbrella and while purchaser firms have demonstrated the ability to slow liberalization and dilute legislation, they are unlikely to avoid it altogether. Gazprom could have been expected to exert whatever pressure it could to ensure that its current long-term contracts and destination clauses remain intact, but the company surely sees the writing on the wall. Russian acquisitions in the downstream, as far away as the U.K., appear to bear this out, and time will tell if Russian profit concerns are better served by clinging doggedly to the status quo or embracing the new order. In all likelihood, the two will come to complement each other – Gazprom will have incentives to work with key buyers to maintain whatever exemptions it can from the liberalization process, while working with the other hand to ensure a presence in key continental trading markets. It is certainly possible that, in the long term, a cultural shift from absolute insistence on contract-based security to confident trust in competitive trading is possible at Gazprom headquarters and in the Kremlin, but this should not be expected in the immediate future.

Even allowing for the dilution of control that liberalization could bring about, co-hegemony is more likely to deepen in the coming years than to dissipate. The location of the gas and the key markets, the routing of extant and pending pipelines, and the

degree of mutual assurance that has developed between Bonn and Moscow still point to German pre-eminence in Western Europe, increasing Russian pre-eminence in the East, and more cross-investment between the two countries than is evident in any other pairing involving Russia. A viable Nabucco pipeline could complicate things, but this remains something of an abstract possibility whose benefit to downstream Europe could be limited by the parallel effect (and parallel German-Russian gains) of Nord Stream. The Visegrad countries will likely move forward with their aspirations to create a north-south pipeline, but one has to wonder whether, if German or Russian actors legitimately saw a loss of market share developing, a series of offers might not be in the offing to East European firms and capitals that would render the construction of a link from Croatia to the Baltic more trouble than it was worth. Without the sort of decisive commitment to gas independence that the Czechs demonstrated in the early 1990s, it is unlikely to happen in a way that would cause any serious loss to the incumbent co-hegemons.

As argued above, a 'wild card' in all of this is the prevalence of organized crime in Russia, and the nebulous zone that many have pointed to between legitimate business structures and the sorts of intermediaries, silent interests and front companies that have emerged as very subtle aspects of the Euro-Russian relationship. Again, this is a very worthy area of investigation, but a very difficult one as well. The key questions would centre on the potential of such intermediaries and individuals to obtain rents that might otherwise have accrued to downstream actors, the means by which this ability was attained, and the methods they are willing to employ to ensure that this misdirection of benefits continues.[402] In addition, we need to take account of the range of possibilities

[402] Again, the 2011 RFE/RL report by Feifer contains more specific examples, extending into the 'legitimate' realm as far as Gazprom's downstream branch in Germany, Gazprom Germania.

between ‘dark’ and ‘light’ in this area. Many would argue that the behaviour of the existing gas powers has been based on collusion for years, and that there is something inherently manipulative in what is normally perceived to be a legitimate status quo. In Ukraine, we saw Gazprom make use of middle-man firms with head offices in Switzerland or Florida, a practice generally viewed as the insertion into a strategic relationship of private rent-seeking with only the thinnest veneer of legitimacy. And, further down the continuum, we would have actors whose names we do not know, either because they operate as third- or fourth-party controllers of the supply chain, or because they are individuals or groups who have obtained control of legitimate firms in downstream markets.

While the implications of such possibilities – some of which have been cited explicitly in preceding chapters – are murky by definition, the implications are considerable. The link between gas flow, acceptable pricing and contribution to the public good has been argued at length throughout this paper, and rents that go beyond tolerable levels or which do not circulate back into the economies from which they are generated are precisely the sorts of corrosive influences that could weaken the regime. Though the subject is difficult to find clarity on, and depending on the magnitude of the aberration, it would be difficult to find a clearer example of a security threat to the countries in question or to the regime itself than disproportionate gains obtained through corruption, organized crime, or the insertion of rent-seeking intermediaries into a relationship that would normally garner rents in ways that serve the stability of the regime.

In Ukraine, Russia is still leveraging its gas advantages to obtain benefits like new access to Sevastopol and industrial partnerships and acquisitions. Russian officials are also apparently lobbying in Ukraine for a merger between Gazprom and Ukraine's Naftogaz; Ukraine is resisting, "knowing full well that it would essentially be Gazprom swallowing up control and ownership" of the national energy firm.[403] And Russian manipulation of Turkmeni gas for purposes of export to Ukraine continues – the late 2005 purchase of Turkmeni gas that left nothing for Ukraine initiated similar purchases in the years since then, replete with price hikes that certainly made Russia a more appealing buyer than Ukraine, and that will continue to frustrate Ukrainian supply diversification.[404] Still, the alleged improvement of relations between the two countries is likely attributable to the return of a pro-Russian government in Kiev, to declines in Russian fears of a Ukrainian accession to NATO, or to a Ukrainian belief that Nord Stream and South Stream could become realities. Whatever the reason, it is asserted that we may be seeing a move away from the 'strong arm' tactics of the previous decade – though, ironically,

[403] See, for example, Stratfor, "Ukraine's Place in Russia's Evolving Foreign Policy," reprinted in the Kyiv Post, 5 January, 2011. Accessed 14 January, 2011, from http://www.kyivpost.com/news/opinion/op_ed/detail/94191/.

[404] As a series of articles on the Eurasianet web service traces, Russia has opted for a clear but risky path in out-manoevering Ukraine for Central Asian. In 2008, Russia agreed to pay European prices for gas from Turkmenistan, Kazakhstan and Uzbekistan, reducing any incentive Turkmenistan had to sell directly to Ukrainian buyers. However, by March of 2009, recession had rendered the agreement damaging to Gazprom, imposing a loss of some $3.5 billion through contractual obligations. An explosion in the Turkmeni section of the pipeline a month later absolved Russia of volume obligations, and led to accusations from the Turkmeni government that the incident had been deliberately engineered. See Eurasianet.org, "Turkmenistan: Gas Blast Ignites Turkmen-Russian Row," 9 April, 2009, accessed 11 January, 2010, from http://www.eurasianet.org/departments/insightb/articles/eav041009b.shtml; "Gazprom Squeezed by Central Asian Contracts," 23 March, 2009, accessed 11 January, 2010, from http://www.eurasianet.org/departments/insightb/articles/eav032409d.shtml.; and

Russian gas deliveries were re-routed through Ukraine when a dispute arose between Russia and Belarus in June of 2010.[405]

Despite the skepticism expressed above concerning the initiation of Russian gas supply to China, the PRC does remain something of a wild card in all of this. As late as July, 2011, the two countries were negotiating again. It is not inconsistent with the logic expressed above that no agreement was reached on natural gas, despite the usual diplomatic language around the meetings. Once again, the overt reason was China's unwillingness to pay European prices, a position that gives Russia little incentive to go to the trouble of building a pipeline. And the question posed earlier regarding the degree of Russian interest in embedding Gazprom in a long-term agreement with China on gas remains. The Chinese position is likely attributable to the structure of its domestic market – state firms operating in an environment of subsidized gas prices do not have the same luxuries that European firms enjoy in terms in terms of passing price hikes on to local distributors. However, one has to wonder how Russia would respond if China did make a strong offer on price. Neither gas supply nor pipeline possibilities are binding limitations, and a good offer from Beijing would put Russia in an awkward position – the signal it would deliver to Europe in accepting a Chinese offer would be extremely negative and would play into the hands of the security naysayers around the world, and it would oblige the country to begin the laborious task of putting pipeline deals and construction together. For the moment, the Chinese position is making it easy for Russia to demur. Depending on one's point of view, this either spares Moscow and Gazprom the difficult job of

[405] Ibid. See also Fred Weir, "Why Russia is Cutting Off Gas Supplies to Belarus," Christian Science Monitor [online], 21 June, 2010. Accessed 14 January, 2011, from: http://www.csmonitor.com/World/Europe/2010/0621/Why-Russia-is-cutting-off-gas-supplies-to-Belarus.

calming grated nerves in Europe, or prevents what could a viable lever of downstream influence from emerging.

8.3 Possibilities for Future Research

The theoretical propositions offered above do provide a point of departure for inquiries into the Euro-Russian relationship, and could provide insights into the likelihood of gas-realted difficulty in the region. With regime theory more generally, other aspects of the Euro-Russian relationship could also suggest directions for inquiry. The notion of the 'evolved' regime reflects different dynamics from the more conventional view of regimes, i.e., more aligned with the 'functional' theoretical basis posited by Haggard and Simmons than the more rigid one offered by Stein. Similarly, the functional divide in natural gas between exporter and importer brings an unusual element to the regime; the cooperation cannot therefore reflect a dilemma of common aversion, or even common interest, unless perhaps profit or stability – not the commodity itself – is highlighted as the 'good' in question. Finally, the nature of this regime as one of a series of geographically proximate and interconnected bilateral relationships between exporter and importers, combined with the superimposition of new rules that the EU is attempting, offers the possibility of an interesting study in regime change, a topic explored by Oran Young and others. I have suggested that the NGR is a unique case with a unique set of dynamics, but clearly there are aspects of it that could be extracted and assessed against the dynamics of other realms of cooperative activity.

My goal, however, has been more to shed light on the NGR and to answer a specific research question than to create a theoretical generalization for regime theory;

my emphasis was therefore more on the real-world problem than its theoretical implications. I have argued throughout that this approach, like the analytical altitude selected for the work, has offered more benefits than shortcomings, but there is no question that it has given many aspects of this topic less detailed attention than they deserve. Moreover, much has changed in Europe since work on this dissertation began. Liberalization, for example, has moved further along in Western Europe, with even the major gas firms taking a greater interest in recent years in gas trading houses. This is an area that will offer scholars much fodder for investigation for the next decade or more.

While we should not expect Russian demeanour to change significantly in the near future, we cannot predict how events will unfold either. One particularly interesting aspect is the one highlighted by Wallander, cited in Chapter 7: the nature of interests and how they are served, analyzed in terms of the domestic and international environments. If change is to occur in Russia's posture toward Europe, it is likely that it will be the result of change in the methods of interest pursuit and realization in the country. Even better, Wallander's concept of transnational imperialism provides us with a useful concept that future efforts could draw on to structure an analysis, and to build hypotheses around.

Another promising area of research lies, for the forseeable future, in the emerging gas dynamics in Eastern Europe. Observers like Balmaceda are correct to portray the region as a locus of tension and, as discussed, actors like the Visegrad 4 are going to considerable (but entirely justifiable) lengths to alter the dynamics of Russian ambition and Western indifference. The role of the EU as an agent of integration in Eastern Europe is also a promising topic. Moving forward inexorably with liberalization, Brussels is having its own influence on Eastern European dependency, quietly and incrementally

funding new pipelines that are neither high-profile nor grandiose, but which have already served to run eastward-flowing pipelines into the Czech Republic and onward into southern Poland, where new projects for transmission line expansion have already been promised funding. An analysis of how these developments might or might not alter the character of the regime could prove fruitful.

More generally, this dissertation has aimed to narrow deficiencies in International Relations' treatment of energy matters, particularly natural gas. The mitigating effect of gas commitments on inter-state friction is counter-intuitive, as is the assertion that control of gas taps does not necessarily present an exporter with leverage. Generally, these ideas are not well understood by policymakers and pundits, many of whom are undoubtedly trained in Political Science, and many of whom have commented or written in ways that suggest an incomplete grasp of the topic. There are exceptions of course, many of which have been cited here. It is hoped that, in addition to highlighting some fairly intuitive or mainstream aspects of this topic, this paper has suggested a number of alternate approaches – conventional or otherwise – that might be taken up by others.

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