

**SECURITIZATION OF OIL AND GAS SUPPLY CHAINS:
CASES OF CHINA, CANADA, AND RUSSIA**

ELENA RESHETOVA
(M.A., Boston University)

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Supervisors:

Associate Professor Zeger van der Wal, Main Supervisor

Dr Philip Andrews-Speed, Co-Supervisor

Examiners:

Dr Scott Victor Valentine

Associate Professor T S Gopi Rethinaraj, National Institute of Advanced Studies

Professor Roland Dannreuther, University of Westminster

DECLARATION

I hereby declare that the thesis is my original work and it has been written by me in its entirety. I have duly acknowledged all the sources of information which have been used in the thesis.

This thesis has also not been submitted for any degree in any university previously.

A handwritten signature in black ink, appearing to read 'E. Reshetova', is written over a horizontal line.

Elena Reshetova

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Summary

Energy security is high on the policy-making and research agenda, but the focus of currently available analytical tools does not allow capturing the essence of the abstract and multifaceted concept. Exposing the process of constructing energy security issues – *securitization* – is pivotal for understanding the highly contextual nature of energy security, and it is the main purpose of this study.

The study conceptualizes securitization as a policy process, explores its fundamentals, constructs a theoretical framework that reflects its peculiarities in relation to a specific referent object, and applies the framework to the analysis of securitization processes in the governance of oil and gas supply chains (upstream and midstream segments) in three case studies – China, Canada, and Russia.

The study makes several contributions. First, it enhances the original securitization theory by addressing major sources of its criticism through the synthesis of insights from the field of international relations and three other social science disciplines – public policy, neoinstitutionalism and strategic management. Second, the securitization framework represents a valuable tool for structured, yet flexible, analysis. Third, the study systematizes existing knowledge on the governance of oil and gas supply chains in China, Canada, and Russia, and uncovers securitization trends in these three national contexts.

Clear understanding of securitization processes is a valuable asset at the decision-makers' disposal: it can inform them about the challenges of insecurity and securitization and their effect on the performance of a threatened referent object; it is useful for untangling seemingly irrational behavior of their counterparts and analyzing their motivations; it helps make sense of other states' national energy policies and energy security priorities; and, finally, it can be a useful tool in identifying a roadmap towards ensuring efficient regional and global energy governance.

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List of Abbreviations

ACF	Advocacy Coalition Framework
ACND	Advisory Committee on Northern Development, Canada
ADR	American Depositary Receipt
AER	Alberta Energy Regulator, Canada
AEUB	Alberta Energy and Utilities Board, Canada
b/d	Barrels Per Day
BCOGC	British Columbia Oil and Gas Commission, Canada
BNA Act	British North America Act, Canada
BP	British Petroleum
CAODC	Canadian Association of Oilwell Drilling Contractors
CAPP	Canadian Association of Petroleum Producers
CBM	Coalbed Methane
CCP	Chinese Communist Party
CDB	China Development Bank
CEAA	Canadian Environmental Assessments Act
CEIB	Export-Import Bank of China
CEPA	Canadian Energy Pipeline Association
CES	Canadian Energy Strategy
CGA	Canadian Gas Association
CIS	Commonwealth of Independent States
C-NLOPB	Canada – Newfoundland and Labrador Offshore Petroleum Board
CNODC	China National Oil and Gas Exploration and Development Corporation
CNOOC	China National Offshore Oil Corporation
CNPC	China National Petroleum Corporation
C-NSOPB	Canada – Nova Scotia Offshore Petroleum Board
COE	Collectively Owned Enterprise
CPC	Caspian Pipeline Consortium
CSUR	Canadian Society for Unconventional Resources

DEP	Department of Electrical Power, People’s Republic of China
DIAND	Department of Indian Affairs and Northern Development, Canada
EC	Environment and Climate Change Canada
EMR	Department of Energy, Mines and Resources, Canada
EPAC	Explorers and Producers Association of Canada
ERCB	Energy Resources Conservation Board, Canada
ESSA	Energy Safety and Security Act, Canada
EU	European Union
FAS	Federal Antimonopoly Service, Russian Federation
FEC	Finance and Economic Committee, People’s Republic of China
FG	Federal Government
FSB	Federal Security Service of the Russian Federation
FTA	Free Trade Agreement
FYP	Five-Year Plan
GESS	Global Energy Security System
GHG	Greenhouse Gas
GKNT	The State Committee for Science and Technology, USSR
Gosbank	State Bank of the USSR
Gosplan	State Planning Committee of the USSR
Gossnab	State Committee for Material-Technical Supply
HSE Standards	Health Safety and Environment Standards
IA	Institutional Analysis
IDA	Institutional Decomposition and Analysis Framework
IEA	International Energy Agency
IMF	International Monetary Fund
INAC	Indigenous and Northern Affairs Canada
IOC	International Oil Company
IPC	Independent Petroleum Company (Russia)
IR	International Relations

JV	Joint Venture
LNG	Liquefied Natural Gas
M&As	Mergers and Acquisitions
MCPGIE	Ministry for the Construction of Petroleum and Gas Industry Enterprises, USSR
MET	Mineral Extraction Tax
MGP	Ministry of the Gas Industry of the USSR
Minenergo	Ministry of Power and Electrification (USSR)
Minenergo	Ministry of Energy of the Russian Federation
Mingeo	Ministry of Geology (USSR)
Minprirodi	Ministry of Natural Resources and Environment, Russian Federation
Minvostokrazvitiya	Ministry for the Development of the Russian Far East
MLR	Ministry of Land Resources, People's Republic of China
MNGS	Ministry of Oil and Gas Construction of the USSR
MNP	Ministry of the Petroleum Industry of the USSR
MOE	Ministry of Energy, People's Republic of China
MOF	Ministry of Finance, People's Republic of China
MOFCOM	Ministry of Commerce, People's Republic of China
MPI	Ministry of Petroleum Industry, People's Republic of China
MPUB	Manitoba Public Utilities Board, Canada
MSM	Multiple Stream Model
NAFTA	The North American Free Trade Agreement
NATO	Nodality, Authority, Treasure and Organizations Typology (Hood)
NBEUB	New Brunswick Energy and Utilities Board, Canada
NDP	New Democratic Party, Canada
NDRC	National Development and Reform Commission, People's Republic of China
NEA	National Energy Administration, People's Republic of China
NEB	National Energy Board, People's Republic of China
NEC	National Energy Commission, People's Republic of China

NEP	National Energy Program, Canada
NES	National Energy Strategy, Canada
NGO	Non-governmental Organization
NOC	National Oil Company
NOP	National Oil Policy, Canada
NRCan	Natural Resources Canada
NSUARB	Nova Scotia Utility and Review Board, Canada
O&G	Oil and Gas
OEB	Ontario Energy Board, Canada
OECD	Organization for Economic Cooperation and Development
OPEC	Organization of the Petroleum Exporting Countries
OROGO	Office of the Regulator of Oil and Gas Operations, Northwest Territories, Canada
PAB	Petroleum Administration Bureau, People's Republic of China
PET	Punctuated Equilibrium Theory
PG	Provincial Government
PP	Public Policy
PRC	People's Republic of China
PSA	Production Sharing Agreement
RBV	Resource-based View Framework
RMB	Renminbi
RO	Referent Object
Rosimushchestvo	Federal Agency for State Property Management, Russian Federation
Rosnedra	Federal Agency for Subsoil Use of the Russian Federation
Rosprirodnadzor	Ministry of Natural Resources and Ecology of the Russian Federation
RSCT	Regional Security Complex Theory
RSFSR	Russian Soviet Federative Socialist Republic
SACI	State Administration of the Coal Industry, People's Republic of China
SAPCI	State Administration for Petroleum and Chemical Industries, People's Republic of China

SASAC	The State-Owned Assets Supervision and Administration Commission, People's Republic of China
SDPC	State Development Planning Commission
SETC	State Economic and Trade Commission
Sinopec	China Petroleum & Chemical Corporation
SOE	State Owned Enterprise
SPC	State Planning Commission, People's Republic of China
TNK	Tyumenskaya Neftyanaya Kompaniya
TNK-BP	Tyumenskaya Neftyanaya Kompaniya – British Petroleum
TSB	Canadian Transportation Accident Investigation and Safety Board
TSSA	Technical Standards and Safety Authority, Canada
UK	United Kingdom
UN	United Nations
UNFCCC	United Nations Framework Convention on Climate Change
US	United States
USSR	Union of Soviet Socialist Republics
Vnesheconombank	The Bank for Foreign Trade of the USSR
WTO	World Trade Organization
WWII	World War II

Chapter 1: Introduction

1.1 Problem Statement & Rationale

Access to energy resources is a major concern for states around the world as energy is critical for their survival. Physical and economic development, a functioning military, and the well-being of the population are all highly dependent on a state's reliable access to affordable energy supplies. Ensuring such access requires a large number of energy policies involving multiple stakeholders that address a variety of challenges, from political and economic to technical and environmental, on sub-national, national, and foreign policy levels. Due to the close link between the state's survival and energy, the latter increasingly becomes a security issue.

Although the concept of energy security is widely used, it is generally vague and loaded. In many policy-making circles of national governments and international organizations 'energy security' has become a cliché highlighting the overall significance and urgency of energy issues without explicit interpretations attached to it. Numerous scholars and analysts have been tackling these interpretations for decades trying to explain the evolving concept of energy security.

Hence, energy security is high on the policy-making and research agenda, but the focus of currently available analytical tools does not allow capturing the essence of the abstract and multifaceted concept. A survey of literature on energy security (See Chapter 2) reveals that most studies attempt to provide an acceptable definition of the concept, quantify it, or move beyond definition and measurement and place energy security into a larger context of national, regional and global energy governance. Energy security can be interpreted in many ways and depends on the subject (*who* is interpreting), the object (*what* is being interpreted) and the purpose (*why* is 'who' interpreting the 'what?') of inquiry. As a result, no consensus on how to best define and measure energy security exists or should be expected to be reached.

The absence of a universal consensus highlights the contextual nature of energy security and the literature's lack of focus on explaining *how* energy issues become energy security issues. Thus, exposing the process of constructing energy security issues – *securitization* – is pivotal for understanding the highly contextual nature of energy security.

Securitization and security are related concepts, but are very different in their connotations and research implications. Studies dealing with security *per se* are generally not concerned with *how* a certain issue entered a security domain. It is securitization studies that address this question, which allows for a contextual exploration of factors shaping the actors, the tools they use, and the environment they operate in.

Thus, securitization is an important feature of policy-making that lacks attention in energy policy analysis. Understanding the fundamentals of *how* the securitization process unfolds can inform decision-makers about the optimal steps they can take, potential challenges they might face as well as implications for the performance of the securitized object. This is also relevant for analyzing motivations, objectives and actions of their fellow decision-makers. For policy analysts, understanding how energy issues become securitized is essential for making sense of national energy policies and states' behavior in the international arena. Knowledge of what determines a state's energy policy choices, and construction of their energy security priorities is indispensable in meeting the ultimate challenge posed by energy insecurity – provision of efficient regional and global energy governance architecture.

1.2 Objectives

This study pursues methodological and empirical objectives. On the one hand, it aims to advance a systematic understanding of securitization processes by creating a

theoretical framework¹ as a tool for structured, yet flexible, analysis. On the other hand, it seeks to contribute thorough accounts of the policy-making processes surrounding the governance of specific national oil and gas (O&G) supply chains. Both objectives are pursued through the exploration of the central research question: how oil and gas supply chains are securitized.

Methodologically, this study will take a multidisciplinary approach and synthesize useful insights from the field of international relations and three other social science disciplines – public policy, neoinstitutionalism and strategic management. The theoretical contributions and analytical tools offered by these disciplines will be combined in an overarching framework in order to provide an analysis of securitization processes that is more nuanced than previously available. For instance, the framework will consider the role of both actors and the environments that they operate in. It will not discriminate between state and non-state actors giving equal consideration to a multitude of participating actors. Where necessary, it will analyze both domestic and international trends and events relevant to securitization processes in order to contribute to a better understanding of regional and international oil and gas governance.

Empirically, the application of the framework in historical and current national policy contexts pursues a dual goal. It will help untangle an obscure web of interconnections between the multiple elements of securitization processes. Comparative case study analysis will follow the roadmap established in the framework, verify the theoretical relationships specified in the framework, and ultimately improve its explanatory power. In addition, the framework will help organize qualitative and quantitative data from the analyzed sources. Primary and secondary data on various aspects of oil and gas supply chains in Canada, China, and Russia are abundant, but they are also piecemeal and do

¹ In this context, ‘theoretical framework’ should not be equated with ‘theory.’ Rather, it is an analytical tool for combining insights from multiple theories. The framework is understood as comprised of a variety of theories, which, in their turn, specify elements of the framework relevant to the central research question and make general working assumptions. Theories consist of models that make precise assumptions about a limited set of variables.

not explain securitization processes. The securitization framework will systematize existing knowledge on oil and gas supply chains in these three national contexts and will explore the following issues in depth:

- the relationship between oil and gas, the two resources commonly treated as belonging to a single sector,
- the larger effect of legal, policy and administrative arrangement factors on a country's exporter/importer status compared with the physical availability of oil and gas resources,
- the role of the institutional environment in shaping the behavior of policy actors and the performance of supply chains.

Finally, if the analysis of O&G supply chains in the securitization framework is deemed valuable, this theoretical framework could be applied in other areas of non-traditional security beyond the O&G and energy sector. The use of O&G supply chains as a referent object for this study could stimulate securitization research on such issues as food, health, migration, and the environment.

1.3 Structure

While this chapter, **Chapter 1**, is an introductory guide to this study, **Chapter 2** is its foundational component. As such, Chapter 2 pursues multiple objectives, from establishing the link between energy security and energy securitization, and outlining the central research question along with its essential elements to critically assessing several bodies of literature. It provides a review of works on energy securitization, theory of securitization in IR as well as public policy, institutional analysis and strategic management. The insights from the last three disciplines are used to counter the weaknesses of the existing securitization theory and help redefine securitization as a policy process. Relevant contributions from the three disciplines are then structured according to three types of inputs, which will be incorporated into the theoretical framework.

As a logical continuation of the previous chapter, **Chapter 3** introduces the theoretical framework and ties together the research question, the framework and the methodology. The proposed securitization framework consists of three core elements – Type I, Type II, and Type III inputs. Respectively, they originate from the deepest layers of the institutional ecosystem, from the policy arena specific to the referent object, and from the linkages between the referent object’s performance and the institutional arrangement governing it.

Following the detailed overview of the theoretical framework, previously analyzed weaknesses of the original securitization theory are discussed to make sure the framework addresses them appropriately. The chapter then revisits the central research question and presents a number of core elements that would serve as a roadmap for upcoming case study analysis. The section on methodology details how the constructed theoretical framework will be operated in the empirical context of comparative case study analysis and provides justification for the choice of three case studies.

Chapters 4 – 6 represent three national level case studies of O&G supply chains in China, Canada, and Russia. The analysis is conducted in line with the components of the proposed securitization framework, following Type I, Type II, and Type III inputs, establishing links between them, and identifying securitization trends detailing the processes of how securitization has (not) unfolded in the context of O&G sectors of these three countries.

Chapter 7 serves as a platform for the comparative discussion of case study findings, and identifies research propositions for future analysis based on the central research question. It also addresses the limitations of the framework and avenues for its improvement. Finally, it discusses theoretical and practical implications of the study of securitization.

Chapter 2: Literature Review

2.1 Introduction

The purpose of this chapter is to provide a comprehensive literature review on the subject of this study – securitization. It examines four strands of literature in relation to the concept of securitization. One is international relations, the body of scholarship where securitization theory originated. The other three include public policy, institutional analysis, and strategic management. They represent the pillars of the multidisciplinary approach of this study, and aim at improving theoretical understanding and practical application of securitization.

The chapter consists of three blocks. The first one (**Sections 2.2 – 2.4**) establishes the link between two related, but different concepts of energy security and energy securitization, outlines the research question of this study, and analyzes existing body of work on the topic of energy securitization. The second block (**Sections 2.5 – 2.6**) explores the theoretical foundation of securitization in the international relations literature and identifies its weaknesses. The third block is the most extensive one: it justifies incorporation of new perspectives on securitization that are outside the scope of the international relations literature (**Section 2.7**), reinterprets securitization as a policy process and defines its components (**Section 2.8**), and introduces the referent object of this study – oil and gas supply chains (**Section 2.9**).

Finally, the chapter's conclusion (**Section 2.10**) summarizes the benefits of a detailed analysis of the securitization process and the implications of a multidisciplinary approach employed in this study.

2.2 Energy Security: the Concept and its Limitations

By the early 2000s, a vast majority of net importers and net exporters of various energy resources adopted the concept of energy security in their national policy

narratives. The maturity of this concept is reflected in the depth and breadth of its discussion in such government documents as national security strategies and energy plans. The discussions vary from a one-sentence mention of energy security and its importance for the state to detailed resource breakdowns, the blueprints on achieving national self-sufficiency targets for each resource, and international cooperation between resource-poor and resource-rich countries and regions. Some states are satisfied with the definition of energy security provided by the International Energy Agency (IEA) and simply copy-paste it into their national energy plans. According to the IEA, energy security is “the uninterrupted availability of energy sources at an affordable price.”² Other states are more particular and choose to devote more time and space to describe their interpretations of energy security.

Bradshaw (2009) argues that “these alternative visions of energy security are absent from the existing literature.”³ He is somewhat correct from the perspective of scarcity of high-quality analytical research, but his statement will not hold true for long because accounts scrutinizing national energy security positions are on the rise. For instance, a number of major exporters (Russia, Saudi Arabia, and Venezuela) and importers (China, the European Union (EU), India, Japan, United States) of oil seen as the major players in the global energy market have received significant attention from analysts of energy security in recent years.

Russia prioritizes state control of major energy resource assets and their transport to customers abroad.⁴ Venezuela’s major focus is on physical security of oil, gas and electricity infrastructure.⁵ The United States is concerned with “protecting Middle

² International Energy Agency, “Energy Security,” *IEA Website*, <http://www.iea.org/topics/energysecurity/>.

³ Michael J. Bradshaw, “The Geopolitics of Global Energy Security,” *Geography Compass* 3, no. 5 (2009), 1920–37.

⁴ Benjamin K. Sovacool and Marilyn A. Brown, “Competing Dimensions of Energy Security: An International Perspective,” *Annual Review of Environment and Resources* 35, no.1 (2010): 77–108. Daniel Yergin, “Ensuring Energy Security,” *Foreign Affairs* 85, no.2 (2006), 69-82.

⁵ Lila Barrera-Hernandez, “The Andes: So Much Energy, So Little Security,” in *Energy Security: Managing Risk in a Dynamic Legal and Regulatory Environment*, eds. Barry Barton, Catherine Redgwell, Anita Rnne, and Donald N. Zillman (Oxford: Oxford University Press, 2004), 217-52.

East suppliers and shipping lanes against piracy and attacks” as much as with “reducing physical threats to energy infrastructure” at home.⁶ Resource-poor Japan is currently taking a market approach to energy security combined with a strong government lead in foreign energy resource investment. China is heavily engaged in diplomatic efforts to secure energy resources all over the world, from neighboring Asian countries to Africa and Latin America.⁷ Similar to China in its energy needs, but owing to domestic political scrambles, India is lagging behind in developing its own energy resources and engaging with the regional and global energy markets.⁸ Twenty-eight members of the EU are struggling to design a common energy strategy due to substantial differences in their national energy policies.⁹

In addition to national perspectives on energy security, specialized international organizations (IEA, OPEC) as well as those indirectly concerned with the subject of energy security (the World Bank, the UN, G7, G20) put forward their own interpretations. The World Bank identifies three pillars of energy security: energy efficiency, diversification of supply, and minimization of price volatility.¹⁰ Various multilateral forums – the G7 (G8), G20, and G77 – whose energy security definitions

⁶ Sovacool and Brown, “Competing Dimensions of Energy Security,” 80. Yergin, “Ensuring Energy Security.” Jan H. Kalicki and David L. Goldwyn, *Energy and Security: Toward a New Foreign Policy Strategy*. (Washington, DC: Woodrow Wilson Center Press, 2005).

⁷ Joseph Y. S. Cheng, “A Chinese View of China’s Energy Security,” *Journal of Contemporary China* 17, no.55 (2008), 297–317. Philip Andrews-Speed and Roland Dannreuther, *China, Oil and Global Politics* (Abingdon, Oxford; New York: Routledge, 2011). Guy CK Leung, Aleh Cherp, Jessica Jewell, and Yi-Ming Wei, “Securitization of Energy Supply Chains in China,” *Applied Energy* 123 (2014), 316–26.

⁸ Ashok Sharma, “India and Energy Security,” *Asian Affairs* 38, no.2 (July 2007), 158-72. Ligia Noronha and Anant Sudarshan, eds., *India’s Energy Security* (London, New York: Routledge, 2009). Ramchandra Pode, “Addressing India’s Energy Security and Options for Decreasing Energy Dependency,” *Renewable and Sustainable Energy Reviews* 14, no.9 (December 2010), 3014-22. Vivek Dhall, *India’s Energy Security* (New Delhi: Vij Books India Pvt Ltd, 2013). Talmiz Ahmad, “India’s Energy Security Challenges,” *Indian Foreign Affairs Journal* 9, no. 4 (October – December 2014), 351-69.

⁹ Bradshaw, “The Geopolitics of Global Energy Security.” Yergin, “Ensuring Energy Security.”

¹⁰ The World Bank, “Energy security issues,” (English) Documents & Reports. (Washington DC: World Bank, 2005). <http://documents.worldbank.org/curated/en/464811468175435408/Energy-security-issues>.

are arguably “limited in scope” have gone through multiple periods of fading and peaking interest in energy security.¹¹

Analytical literature on energy security as a whole deals with questions beyond defining energy security, and the studies have become much more nuanced over time. Some of the most recent attempts at conceptualizing energy security are based on the syntheses of previous works and introduce new dimensions. These include authors arguing against paying too much attention to the concept and calling for a shift to more important details.¹² Meta-syntheses of existing literature are giving rise to new approaches to the study of energy security including construction of diverse analytical frameworks which work the concept into various contexts and explore its interplay with and effect on other variables (Global energy security system (GESS)¹³, Complexity Theory and three distinct arenas within global energy governance (energy security, energy access, and climate change),¹⁴ market mechanisms for oil and gas,¹⁵ examination of energy as a public good,¹⁶ regime complex and issue areas,¹⁷ and contextual application of energy security¹⁸.

As the experience of practitioners and academic researchers illustrates, definitions of energy security are abundant, but no consensus on how to best define and measure

¹¹ Charles Ebinger and Govinda Avasarala, “The “Gs” and the Future of Energy Governance in a Multipolar World,” in *The Handbook of Global Energy Policy*, ed. Andreas Goldthau (John Wiley & Sons, 2013), 190.

¹² Anas F. Alhajji, “What Is Energy Security? Definitions and Concepts,” *Oil, Gas & Energy Law Journal (OGEL)* 6, no.3 (2008). Sovacool and Brown, “Competing Dimensions of Energy Security.” Aleh Cherp and Jessica Jewell, “The Three Perspectives on Energy Security: Intellectual History, Disciplinary Roots and the Potential for Integration,” *Current Opinion in Environmental Sustainability* 3, no.4 (September 2011), 202–12. Benjamin Sovacool and Ishani Mukherjee, “Conceptualizing and Measuring Energy Security: A Synthesized Approach,” *Energy* 36, no.8 (August 2011), 5343–55. Christian Winzer, “Conceptualizing Energy Security,” *Energy Policy* 46 (July 2012), 36–48.

¹³ Kalicki and Goldwyn, *Energy and Security*.

¹⁴ Aleh Cherp, Jessica Jewell, and Andreas Goldthau, “Governing Global Energy: Systems, Transitions, Complexity,” *Global Policy* 2, no.1 (January 2011), 75–88.

¹⁵ Jan Martin Witte and Andreas Goldthau, *Global Energy Governance: the New Rules of the Game*. (Washington, D.C.; Berlin: Brookings Institution Press ; Global Public Policy Institute, 2010).

¹⁶ Ann Florini and Benjamin K. Sovacool, “Who Governs Energy? The Challenges Facing Global Energy Governance,” *Energy Policy* 37, no.12 (2009), 5239–48. Ann Florini and Benjamin K. Sovacool, “Bridging the Gaps in Global Energy Governance,” *Global Governance: A Review of Multilateralism and International Organizations* 17, no.1 (2011), 57–74.

¹⁷ Kal Raustiala and David Victor, “The Regime Complex for Plant Genetic Resources,” *International Organization* 58 (2004), 277–309.

¹⁸ Lynne Chester, “Conceptualising Energy Security and Making Explicit Its Polysemic Nature,” *Energy Policy* 38, no.2 (2010), 887–95.

energy security is or should be expected to be reached. Yet, even if Bradshaw's concern is ultimately addressed and all national perspectives are heard, our understanding of energy security will not be complete. These definitions illustrate the multifacetedness of the energy security concept, but are not nuanced enough, with a few exceptions¹⁹, for at least two reasons. First, a state is treated as a static and homogenous actor. Dynamics within the government as well as closely related structures – relevant ministries, government offices, and national oil companies – are traced only on a descriptive level, state-market interaction is not thoroughly analyzed, and no long-term view is taken to explain energy security as a fluid and relative concept. Second, *energy* security is the subject of analysis, and while full attention is given to security, not many make an effort to explain what they mean by *energy* in their particular work. It is not a very productive way of analysis when whole national energy complexes (including different supply chains, electricity systems, etc.) are under scrutiny in 5,000-7,000 word articles. These works are not detailed enough or simply do not have it as their objective to answer the questions of *how* energy security issues come about, if they are able to move back into the non-security domain and what the implications of such processes are. Cherp and Jewell (2014) emphasize that energy security “finds different expressions under different conditions.”²⁰ The absence of a universal consensus highlights one of the most essential attributes of the concept, that is, contextuality. Thus, it is logical to assume that exposing the process of constructing energy security issues – *securitization* – would be useful in understanding a highly contextual nature of energy security.

¹⁹ Cheng, “A Chinese View of China’s Energy Security.” Andrews-Speed and Dannreuther, *China, Oil and Global Politics*. Leung, Cherp, Jewell, and Wei, “Securitization of Energy Supply Chains in China.”

²⁰ Cherp & Jewell, “The Concept of Energy Security: Beyond the Four As,” *Energy Policy* 75 (2014), 416.

2.3 Research Question

Securitization is an important feature of policy-making, but it lacks attention in policy analysis. Understanding the fundamentals of *how* this policy process unfolds can inform decision-makers about the optimal steps they can take, potential challenges they might face along the way and implications securitization might have for their goals and performance of the referent object.

Thus, equipped with the analytical strength of a multidisciplinary approach, the study is designed to address the central research question:

How are oil and gas supply chains securitized?

Since *how* is a broad question, it will be broken down into more manageable questions, which will make use of the constructed theoretical framework by exploring theoretical relationships established between its components. These questions will be outlined alongside the discussion of the theoretical framework in Chapter 3.

2.4 Energy Securitization: An Overview

Securitization and security are related concepts, but are very different in their connotations and research implications. Studies dealing with security per se might explain why a certain issue is a security issue, but are generally not concerned with *how* this issue entered the security domain. It is the securitization studies that address the *how* question, or the securitization process. Focusing on the *how* allows for a contextual analysis of dynamic relationships between actors involved in the securitization processes. Contextual analysis entails exploration of participating actors including their resources, objectives and beliefs, as well as the environment they operate in, which is shaped by the actors themselves and other factors outside their direct control.

Despite clear potential benefits of studying energy securitization, literature on the subject is almost non-existent, especially when compared with abundant energy security analyses. A quick search of ‘energy security’ on ScienceDirect reveals that the number of articles containing these two words in their titles published in journals²¹ dedicated to energy policy matters increased exponentially between 2000 and 2015, from 86 to 1,362. At the same time, energy securitization articles – in title alone – are much more scarce.

A number of scholars have explored energy securitization in the context of bi- and multilateral state relations. In a superficial application of securitization theory, Radoman (2007) concludes that treatment of energy supply as a security issue “will lead to a security dilemma” between Russia and the EU.²² Natorski and Surrallés (2008) explore a negative effect of securitization on the framing of the EU’s common energy policy via a detailed discourse analysis of the member-state and the EU level positions on energy issues between 1970s and 2006.²³ Kirchner and Berk (2010) pick EU-Russia relations for empirical examination, but use Regional Security Complex Theory (RSCT), which securitization theory is a part of, to outline the relationship.²⁴ Adamides and Christou (2016) also use RSCT as the framework for analysis of Israel – Cyprus – Turkey trilateral (non-)cooperation in the energy sphere.²⁵ McGowan (2011) also analyzes the EU and critically applies the concept of securitization. This article is one of the most extensive applications of the concept in the energy sector.²⁶

The implications of energy securitization on regional security in the presence of great

²¹ A sample of selected Elsevier journals includes Applied Energy, Energy, Energy Economics, Energy Policy, International Journal on Electrical Power and Energy Systems, Renewable Energy, Renewables and Sustainable Energy Reviews, and the Electricity Journal.

²² Jelena Radoman, “Securitization of Energy as a Prelude to Energy Security Dilemma,” *Western Balkans Security Observer-English Edition* no.4 (2007), 36.

²³ Michal Natorski and Anna Herranz Surrallés, “Securitizing Moves to Nowhere? The Framing of the European Union’s Energy Policy,” *Journal of Contemporary European Research* 4, no.2 (2008), 70–89.

²⁴ Emil Kirchner and Can Berk, “European Energy Security Co-operation: Between Amity and Enmity,” *JCMS: Journal of Common Market Studies* 48, no.4 (2010), 859–80.

²⁵ Constantinos Adamides and Odysseas Christou, “Beyond Hegemony: Cyprus, Energy Securitization and the Emergence of New Regional Security Complexes,” in *The Eastern Mediterranean in Transition: Multipolarity, Politics and Power*, eds., Spyridon N. Litsas and Aristotle Tziampiris (New York: Routledge, 2016), 179–90.

²⁶ Francis McGowan, “Putting Energy Insecurity into Historical Context: European Responses to the Energy Crises of the 1970s and 2000s,” *Geopolitics* 16, no.3 (2011), 486–511.

power rivalry are studied in the work of Phillips (2013).²⁷ The author uses historical comparative analysis to trace energy securitization in Asia from 1972 to 2011, but focuses on the effects rather than the process of securitization. Özcan (2013) devotes more than half of his paper to the overview of security and securitization theory, and only a small section to arguing for the application of this theory to the energy sector.²⁸ It is useful as a starting point in the study of securitization of energy, but cannot be called an application of the theory as such. Finally, Christou and Adamides (2013) “treat energy as an intervening variable in securitization relations among states” in the New Middle East in the period of the Arab Spring.²⁹ The article raises important points on the role of energy as a separate sector in securitization studies and supports its propositions with multiple mini case studies from the region. Bridge (2014) discusses the association between oil imports and energy security, and interprets energy securitization as “a set of imaginative and calculative practices” (‘geo-metrics’).³⁰

Several other works focus on national contexts as the major precondition for energy securitization and its implications for countries’ foreign affairs. Kuzemko (2014) emphasizes the role of “the language of security as being politically potent,”³¹ and uses it as an instrument to trace depoliticization of UK’s energy policy in the 1980s – 1990s and its securitization by the late 2000s. Leung et al. (2014) use securitization theory along with other theoretical insights to design a framework for explaining securitization of energy supply chains in China.³² Nyman and Zeng (2016) also turn to China, but expand the subject of their research to include both energy and climate

²⁷ Andrew Phillips, “A Dangerous Synergy: Energy Securitization, Great Power Rivalry and Strategic Stability in the Asian Century,” *The Pacific Review* 26, no.1 (2013), 17–38.

²⁸ Sezer Özcan, “Securitization of Energy through the Lenses of Copenhagen School,” *European Journal of International Relations* 4, no. 4 (2013).

²⁹ Odysseas Christou and Constantinos Adamides, “Energy Securitization and Desecuritization in the New Middle East,” *Security Dialogue* 44 no. 5-6 (2013), 519.

³⁰ Gavin Bridge, “Energy (In)Security: World-Making in an Age of Scarcity,” *The Geographical Journal* 181, no.4 (December 2015), 328-39.

³¹ Caroline Kuzemko, “Politicising UK Energy: What ‘Speaking Energy Security’ Can Do,” *Policy & Politics* 42, no.2 (April 2014), 270.

³² Guy CK Leung, Aleh Cherp, Jessica Jewell, and Yi-Ming Wei, “Securitization of Energy Supply Chains in China,” 316-26.

policies. They review the links between security and these two policy areas in the academic and policy-making circles.³³

Energy security has been climbing up both research and policy agendas, but it is unclear why energy securitization has received so little attention in the energy policy analysis, especially given that it aims at widening the concept of security and applying it beyond the military sector. Although in its original form the theory is very general and is not designed specifically for the energy sector, scholars in other fields including environment, migration, religion and health have been successfully applying it since the late 1990s.³⁴ There are also numerous critiques of securitization theory pointing out to its analytical narrowness, normative weaknesses, and limitations of its main instrument – discourse analysis (all of which will be discussed in detail later in this chapter, in Section 2.6). Nevertheless, the theory has been challenged and tested on numerous occasions since its emergence in 1998, and today it is “one of the most vibrant areas of research in contemporary security studies.”³⁵

2.5 Securitization Theory as the Foundation for the Theoretical Framework

Securitization theory appeared in Buzan, Wæver and de Wilde’s 1998 book “Security: A New Framework for Analysis,”³⁶ but its origins can be traced back to earlier works of Buzan³⁷ and Wæver³⁸. These scholars constitute the core of the

³³ Jonna Nyman and Jinghan Zeng, “Securitization in Chinese Climate and Energy Politics,” *WIREs Climate Change* 7, no.2 (March/April 2016), 301-13.

³⁴ Some of the most recent examples include: Thierry Balzacq, ed., *Securitization Theory: How Security Problems Emerge and Dissolve* (London: Routledge, 2011). Anne Hammerstad, “Securitisation from Below: The Relationship Between Immigration and Foreign Policy in South Africa’s Approach to the Zimbabwe Crisis,” *Conflict, Security & Development* 12 no.1 (2012), 1–30. Jonathan Bright, “Securitisation, Terror, and Control: Towards a Theory of the Breaking Point,” *Review of International Studies* 38, no.4 (2012), 861–79.

³⁵ Columba Peoples and Nick Vaughan-Williams, *Critical Security Studies: An Introduction*. (Abingdon: Routledge, 2010), 75, 85.

³⁶ Barry Buzan, Ole Wæver, and Jaap De Wilde, *Security: a New Framework for Analysis* (Lynne Rienner Publishers, 1998).

³⁷ Barry Buzan, *People, States & Fear: An Agenda for International Security Studies in the Post-cold War Era* (ECPR Press, 1991).

³⁸ Ole Wæver, “Conflicts of Vision: Visions of Conflict,” in *European Polyphony: Perspectives beyond East-West Confrontation*, eds., Ole Wæver, Pierre Lemaitre and Elzbieta Tromer (London: Macmillan, 1989). Ole Wæver, *Securitization and Desecuritization* (Copenhagen: Centre for Peace and Conflict

Copenhagen school of security studies. They define securitization as the positioning of a particular issue as an existential threat to a referent object (*what is being threatened*) by a securitizing actor (*who has legitimate securitizing power*) through a speech act (*securitizing move*). The audience consent with the securitizing actor enables the latter to use extraordinary measures, which signifies “the suspension of ‘normal politics’ in dealing with the issue” (*securitization*).³⁹

In an attempt to widen the concept of security, Buzan et al. (1998) distinguish five sectors in which securitization can occur: military, political, economic, society and environment.⁴⁰ It has been argued, however, that this sectoral classification “does not go far enough in recognizing context.”⁴¹ The authors too acknowledge that in reality these sectors often overlap, but differentiating between them is helpful in discerning the unique security dynamics. Energy, in Buzan et al. (1998), “is considered strictly as an economic referent object.”⁴² Nevertheless, the authors’ point is contested almost by everyone in the small group of works on energy securitization. Most of them support Naturski and Surrallés (2008) who argue that “energy could be a referent object in any of the aforementioned five sectors.”⁴³

According to securitization theory, the roles of a securitizing actor, a securitizing move and the audience consent are crucial. All three have to be in place for a securitization to occur because they contribute to the “process of constructing shared understanding of what is to be considered and collectively responded to as a threat,” that is, securitization theory is not concerned with “some objective threats that

Research, 1993). Ole Wæver, “Securitization and Desecuritization,” in *On Security*, ed., Ronnie D. Lipschutz (New York: Columbia University Press, 1995).

³⁹ Ole Wæver, *Securitization and Desecuritization*. Buzan et al. *Security*. Matt McDonald, “Securitization and the Construction of Security,” *European Journal of International Relations* 14, no.4 (2008), 567.

⁴⁰ Buzan et al., *Security*.

⁴¹ McDonald, “Securitization and the Construction of Security,” 571.

⁴² Buzan et al., *Security*, 116.

⁴³ Naturski and Surrallés, “Securitizing Moves to Nowhere?” 71. Christou and Adamides, “Energy Securitization and Desecuritization in the New Middle East.” Özcan, “Securitization of Energy through the Lenses of Copenhagen School,” 12.

'really' endanger some object."⁴⁴ However, when a shared understanding is constructed and the audience legitimizes the use of extraordinary means in dealing with the threat, this same audience is shut down from an open dialogue and engagement into normal politics. Once securitized, the issue enters the security domain, which is the opposite of normal politics.⁴⁵ Thus, in the view of the Copenhagen school, security has a negative connotation, while asecurity should be the desired condition because actors "who do not feel insecure, do not self-consciously feel (or work on being) secure; ...are more likely to be engaged in other matters."⁴⁶ Given that both security and asecurity are attainable, it is possible for securitized issues to undergo the process of desecuritization. The concept of desecuritization is discussed by Wæver (1995)⁴⁷, but is "much less well specified in securitization theory and is a source of continuing intellectual ferment."⁴⁸

2.6 Limitations of Securitization Theory

In addition to poor integration of the concept of desecuritization, securitization theory has five common sources of criticism: its stance on normal politics, the speech act, the securitizing actor, the concept of audience and the context of securitization. The definition of normal politics as open for dialogue and engagement of actors other than the elites is rooted in the overwhelming focus of the theory on the liberal democratic Western states. While the Eurocentric character of the theory is self-evident, it is the rest of the points that have invited a plethora of scholars to critically assess securitization theory. Some of the most substantive critiques belong, but are not limited to the Paris and Welsh (also known as the Aberystwyth) schools of security studies. Others come from the representatives of the Copenhagen school itself.

⁴⁴ Buzan et al., *Security*, 26.

⁴⁵ Wæver, "Securitization and Desecuritization."

⁴⁶ Ole Wæver, "Insecurity, Security, and Asecurity in the West European Non-War Community," *Cambridge Studies In International Relations* 62 (1998), 71.

⁴⁷ Wæver, "Securitization and Desecuritization."

⁴⁸ Peoples and Vaughan-Williams, *Critical Security Studies*, 85.

Finally, there is a number of independent security experts not associated with any of these schools who comment on the benefits and limitations of the securitization theory. Instead of separating the existing critiques by source and their relation to one group of scholars or another, this section groups them on the basis of the objects of their appraisal: (1) the moment of securitization and the speech act; (2) securitizing actor; (3) the audience; and (4) the context of securitization.

First, the issues of the moment of securitization and a speech act as the sole instrument of securitization have been brought up numerous times by various scholars. According to Buzan et al. (1998), “the way to study securitization is to study discourse and political constellations.”⁴⁹ The restricted meaning of a securitizing move seen exclusively as a speech act reflects the narrow boundaries of the original securitization theory, and points to negligence of contextual factors. Proponents of discourse analysis as the principal method of analysis argue for televisual communication as an acceptable securitizing move. For instance, as stated by Williams (2003), “securitization theory must develop a broader understanding of the mediums, structures, and institutions, of contemporary political communication.”⁵⁰ Paris School supporters go beyond discourse analysis to suggest that the study of securitization requires a “focus on the creation of networks of professionals of (in)security, the systems of meaning they generate and the productive power of their practices.”⁵¹ Overemphasizing the role of speech acts is dangerous as this practice can lead to omitting a “range of often routinized practices... that enable emergency measures.”⁵² Weldes et al. (1999), Hansen (2000), and Wilkinson (2007) concur with McDonald (2008) in that in its extreme preoccupation with the speech

⁴⁹ Buzan et al., *Security*, 25.

⁵⁰ Michael Williams, “Words, Images, Enemies: Securitization and International Politics,” *International Studies Quarterly* 47, no.4 (2003), 511–12.

⁵¹ CASE Collective, “Critical Approaches to Security in Europe: A Networked Manifesto,” *Security Dialogue* 37, no.4 (2006), 458.

⁵² McDonald, “Securitization and the Construction of Security,” 570.

act, securitization theory completely overlooks physical action which is beyond the scope of discourse analysis.⁵³

Too narrow of a focus on a distinct act of securitization like a speech act can also lead to misinterpretation of the process of securitization. A focus on a single act assumes a momentary transition of an issue from normal politics to the security domain, and, thus, disregards “a situation [which] is being gradually intensified, and thus rendered susceptible to securitization, while remaining short of the actual securitizing decision.”⁵⁴ In some situations “issues can become institutionalized as security issues or threats without dramatic moments of intervention.”⁵⁵ In such scenarios, a snapshot of a speech act, or the moment of securitization, would be inadequate in providing an explanation of why and how an issue entered the security realm. Beck (1999), Abrahamsen (2005), and Aradau and Van Munster (2007) criticize the excessive focus on the moment of securitization from the perspective of a too simplistic dual representation of an issue, where it is either an issue or an existential threat. In their opinion, this approach neglects a possibility of continuums (i.e., issue, problem, risk, threat).⁵⁶ Due to the theoretical and methodological problems with the speech act, Balzacq (2010) offers a pragmatic approach to defining a securitizing move. He describes it as “a pragmatic act, i.e.: a sustained argumentative practice aimed at convincing a target audience to accept, based on what it knows about the world, the

⁵³ Jutta Weldes, *Constructing National Interests: the United States and the Cuban Missile Crisis* (U of Minnesota Press, 1999); Lene Hansen, “The Little Mermaid’s Silent Security Dilemma and the Absence of Gender in the Copenhagen School,” *Millennium: Journal of International Studies* 29, no.2 (2000), 285–306; Claire Wilkinson, “The Copenhagen School on Tour in Kyrgyzstan: Is Securitization Theory Useable Outside Europe?” *Security Dialogue* 38, no.1 (2007), 5–25; Matt McDonald, “Securitization and the Construction of Security,” *European Journal of International Relations* 14, no.4 (2008), 563–87.

⁵⁴ Williams, “Words, Images, Enemies,” 521.

⁵⁵ Didier Bigo, “Security and Immigration: Toward a Critique of the Governmentality of Unease,” *Alternatives: Global, Local, Political* 27, no.1 (2002), 63–92.

⁵⁶ Ulrich Beck, *World Risk Society* (London: Polity, 1999). Celeste A. Wallander and Robert O. Keohane, “Risk, Threat, and Security Institutions,” in *Power and Governance in a Partially Globalized World*, ed., Robert Keohane (New York, NY: Routledge, 2002), 91. Rita Abrahamsen, “Blair’s Africa: The Politics of Securitization and Fear,” *Alternatives: Global, Local, Political* 30, no.1 (2005), 55–80. Claudia Aradau and Rens Van Munster, “Governing Terrorism Through Risk: Taking Precautions, (un) Knowing the Future,” *European Journal of International Relations* 13, no.1 (2007), 89–115.

claim that a specific development is threatening enough to deserve an immediate policy to curb it.”⁵⁷

The second and third points of criticism are concerned with the nature and function of securitizing actor and the audience, two of the three main conditions for successful securitization (along with the securitizing move) in the original securitization theory. Even though a state is the principal unit of analysis in security studies,⁵⁸ focus on political elites and their perception of threat create a partial picture of the securitization processes where broader contextual – historical, social and bureaucratic – practices are discarded.⁵⁹ For example, in her analysis of the 2008 Zimbabwe crisis, Hammerstad (2012) finds that grassroots level actors, rather than the political elites, played a role of securitizing actors.⁶⁰ Therefore, actors within the political elite should not be considered as the most likely or the only possible securitizing actors by default. Instead, a broader securitization context has to be considered and actual relationships between the securitizers and the referent object deciphered.

With regards to the audience in securitization theory, several points of criticism can be distinguished: its ambiguous definition, the role of consent as opposed to coercion, and the potential for the audience to transform into a securitizing actor. Wæver in his later work briefly discusses the confusing role of the audience, but does not provide any clarifications. He only mentions that understanding audience in the narrow terms of the general population is misleading as “it actually varies according to the political

⁵⁷ Balzacq, *Securitization Theory: How Security Problems Emerge and Dissolve*, 60.

⁵⁸ Wæver, “Conflicts of Vision: Visions of Conflict.” Wæver, “Securitization and Desecuritization.”

⁵⁹ Jef Huysmans, *The Politics of Insecurity: Fear, Migration and Asylum in the EU* (Routledge, 2006), 26. Hammerstad, “Securitisatation from Below.” Bigo, “Security and Immigration.” Didier Bigo, “Frontier controls in the European Union,” in *Controlling frontiers: Free movement into and within Europe*, Didier Bigo and Elspeth Guild (Aldershot, Hants, England: Ashgate, 2005). Stuart Maltman, “Securitization Theory and the Limits of Security Studies.” Draft Paper for BISA Conference (Birmingham, UK, 2013).

⁶⁰ Hammerstad, “Securitisatation from Below,” 6.

system and the nature of the issue.”⁶¹ Evidently, abundant criticism of the place of the audience stems from its unclear description in the securitization theory.

Stritzel (2007) points out that “in empirical studies one cannot always figure out clearly which audience is when and why most relevant, and when exactly an audience is ‘persuaded’.”⁶² His concerns are reiterated in Williams (2003), Kaunert and Leonard (2011), Bright (2012), and Salter and Mutlu (2013).⁶³ The act of audience persuasion performed by the securitizing actor is ambiguous because potentially the two may not be easily separated, and “given the power of securitizing actors, ‘persuasion’ may not be necessary.”⁶⁴ Even Buzan et al. (1998) note that coercion is as important as consent, and the audience accepting a securitizing move does not have to take place in a “civilized, dominance-free discussion.”⁶⁵ Similar to a potential situation where multiple securitization actors are present, Huysmans (2006), Roe (2008), Salter (2008), Stritzel (2007), and Hammerstad (2012) raise a question of the possibility of multiple audiences in the securitization processes.⁶⁶

Another important point on the role of the audience is its potential to perform a securitizing move and thus become a securitizing actor. Such actors in the audience as civil society representatives (i.e., NGOs) and the media could potentially make a speech act powerful enough to attract attention of the other members of the audience and most importantly change behavior of securitizing actors. If a situation like this were to occur, would it mean that the roles of securitizing actors and the audience can

⁶¹ Ole Wæver (2003) *Securitization: Taking Stock of a Research Programme in Security Studies*, unpublished manuscript, 11-12.

⁶² Holger Stritzel, “Towards a Theory of Securitization: Copenhagen and Beyond,” *European Journal of International Relations* 13, no.3 (2007), 363.

⁶³ Williams, “Words, Images, Enemies,” 514; Christian Kaunert and Sarah Leonard, “EU Counterterrorism and the European Neighbourhood Policy: An Appraisal of the Southern Dimension,” *Terrorism and Political Violence* 23, no.2 (2011), 59; Bright, “Securitization, Terror and Control”; Mark B. Salter and Can E. Mutlu, “Securitisisation and Diego Garcia,” *Review of International Studies* 39, no.4 (2013), 815–34.

⁶⁴ Piers R. Williamson, *Risk and Securitization in Japan, 1945-60* (London: Routledge, 2013), 29.

⁶⁵ Buzan et al., *Security*, 23.

⁶⁶ Huysmans, *The Politics of Insecurity*. Paul Roe, “Actor, Audience (s) and Emergency Measures: Securitization and the UK’s Decision to Invade Iraq,” *Security Dialogue* 39, no.6 (2008), 615–35. Mark B. Salter, “Securitization and Desecuritization: a Dramaturgical Analysis of the Canadian Air Transport Security Authority,” *Journal of International Relations and Development* 11, no.4 (2008), 321–49. Stritzel, “Towards a Theory of Securitization.” Hammerstad, “Securitisisation from Below.”

reverse (at least temporarily)? Thus, the nature and the role of the audience are not as static and simple as described in securitization theory and require further examination.

Fourth, related to the predetermined role of securitizing actors and the audience in securitization theory is the issue of the Copenhagen school ignoring the context of securitization. Many critics who find contextual factors essential in defining “both patterns of securitization and the broader construction of security”⁶⁷ argue that securitization theory overlooks political, cultural, and social context of securitizing moves.⁶⁸ The theory is criticized for focusing narrowly on the ephemeral speech act rather than the persisting conditions in which speech act as a securitizing move is created. Although Wæver (2000) does recognize the importance of the “conditions historically associated with the threat,” this analysis is not incorporated into the securitization theory.⁶⁹

In conjunction with the extensive evaluations of the securitization theory, some scholars have propagated a broader approach to the construction of security. McDonald (2008) argues that securitization theory “pays insufficient attention to the means through which particular articulations of security and threat become possible” and that it should “focus on how political communities themselves are constituted.”⁷⁰ One of the questions he raises is the role of narratives of history, culture and identity in the process of securitization. Balzacq (2010) calls for more attention to “the nature and functions of policy tools” in order to advance the study of securitization

⁶⁷ McDonald, “Securitization and the Construction of Security,” 571.

⁶⁸ Roxanne Lynn Doty, “Immigration and the Politics of Security,” *Security Studies* 8, no.2-3 (1998), 71–93. Nils Bubandt, “Vernacular Security: The Politics of Feeling Safe in Global, National and Local Worlds,” *Security Dialogue* 36, no.3 (2005), 275–296. Balzacq, *Securitization Theory*. Ben Reid, “Securitising Participation in the Philippines: KALAHI and Community-driven Development,” *Journal of Contemporary Asia* 41, no.1 (2011), 47–74. Maltman, “Securitization Theory and the Limits of Security Studies.”

⁶⁹ Ole Wæver, “The EU as a Security Actor: Reflections from a Pessimistic Constructivist on Post-Sovereign Security Orders,” *International relations theory and the politics of European integration* (2000), 250-94.

⁷⁰ McDonald, “Securitization and the Construction of Security,” 565, 574.

methodologically.⁷¹ Along similar lines, Doty (1998) encourages researching the empowerment of certain actors to assume the role of securitizing actors.⁷²

To recap the contents of this extensive yet essential section, the assessment and application of securitization theory have resulted into four major points of criticism. These points correspond with the central elements of the theory, namely a speech act and a moment of securitization, securitizing actor, and the audience as well as the context of the securitization process. Understanding the limitations of securitization theory is key to identifying potential avenues for the theory's improvement.

All of the above limitations significantly reduce the theory's explanatory power, justify its rare and cautious application to the energy security issues, and emphasize the need to incorporate additional theoretical and methodological instruments. This study sees securitization theory as potentially beneficial for the energy security field, and aims at reviving the theory and operationalizing the concept of securitization by looking at it through the lens of policy analysis. The ultimate goal of theory improvement is to create a comprehensive, yet straightforward and practical framework for systematic analysis of how securitization, seen as a complex policy process, unfolds.

The remainder of this chapter provides the groundwork for the construction of the analytical framework. The following three sections provide justifications for the modification of the securitization theory (Section 2.7), translate the IR concept of securitization into the policy analysis language and examine the new elements to be incorporated and rationale for their use (Section 2.8), and finally introduce the referent object of the study – oil and gas supply chains (Section 2.9).

⁷¹ Balzacq, *Securitization Theory*, 65.

⁷² Doty, "Immigration and the Politics of Security."

2.7 Justifications for the Modification of Securitization Theory

The proposed modifications broaden securitization theory and at the same time refine its major components to address the five major challenges described above. A number of scholars have called for changes in securitization theory, but only a few attempted to significantly improve it. While existing attempts tend to address only one problematic element of the theory at a time⁷³, this research takes a systematic approach at improving all major problem areas simultaneously.

As discussed in the previous section, in its current form, securitization theory lacks precise explanation of its central elements – securitizing actors, the audience, their perceptions, actions (securitizing moves, consent), relations between them, as well as the environment they operate in. This research offers a policy analysis perspective on securitization, arguing that it resembles a policy process where actors make (and accept/reject) policy decisions. As a result, insights from public policy, institutional analysis and strategic management are examined to identify concepts, methods, theories and frameworks that would help shed light on the challenging elements of the securitization theory. These three broad disciplines have been selected as the most relevant for the purposes of this research since they use tools not readily available to security studies. Insights from these three disciplines are complementary, and, compared with security studies, they are more context-oriented and better equipped to deal with actor dynamics, organizational, institutional, and ideational change.

2.7.1 Public Policy Literature

Public policy studies offer a number of sophisticated concepts and models that can contribute to a thorough analysis of the problematic areas of the securitization theory,

⁷³ The issue of agenda-setting in securitization theory in Johan Eriksson, “Agendas, Threats, and Politics: Securitization in Sweden,” in *European Consortium for Political Research*, ECPR Joint Sessions: Redefining Security, Mannheim. March 1999. The issue of audience in Myriam Dunn Cavelty, “Cyber-Terror – Looming Threat or Phantom Menace? The Framing of the US Cyber-Threat Debate,” *Journal of Information Technology & Politics* 4, no. 1 (2008): 19-36.

including the origins, behavior and influence of securitizing actors and the audience, the range of policy instruments beyond the speech act, and triggers of policy change among others.

In public policy literature, relationships between securitizing actors, their securitizing moves, and the audience belong to a *policy subsystem (policy arena)*. This concept directs attention to actions and behavior that are hard to explain otherwise, and “helps to capture the interplay of actors, institutions, and ideas in policy-making.”⁷⁴ Public policy analysis suggests that securitizing actors can emerge from the policy arena as opposed to the narrow political elites. At the same time, the role of audience limited to providing consent (or dissent) in the aftermath of the speech act in securitization theory may be much greater as the audience can potentially influence the process of policy formulation which speech act is a part of.

Also, the role of speech act is exaggerated in securitization theory because in reality, it is not a single tool at the securitizing actor’s disposal. Public policy scholars have advanced numerous taxonomies of policy instruments that can help expand the concept of securitizing move beyond the speech act: a variety of tools corresponding to limited ends⁷⁵, the link between instrument preferences and policy decisions⁷⁶, and other instrument typologies⁷⁷. Moreover, instrument choice is not a simple technical exercise; it is influenced by the institutional conditions it is embedded in, by the policy sector these tools are applied to and by instrument bias.⁷⁸

⁷⁴ Daniel McCool, “The Subsystem Family of Concepts: a Critique and a Proposal,” *Political Research Quarterly* 51, no.2 (1998), 557.

⁷⁵ Harold Lasswell, *Politics: Who Gets What, When, How* (New York: Meridian, 1958).

⁷⁶ Theodore J. Lowi, “Distribution, Regulation, Redistribution: The Functions of Government,” in *Public Policies and Their Politics: Techniques of Government Control*, ed., Randall B. Ripley (New York: Norton, 1966), 27-40. Theodore J. Lowi, “Four Systems of Policy, Politics and Choice,” *Public Administration Review* 32, no.4 (1972), 298-310.

⁷⁷ Christopher Hood, *The Tools of Government* (NJ: Chatham House, 1986).

⁷⁸ Herbert A. Simon, “A Behavioral Model of Rational Choice,” *Quarterly Journal of Economics* 69, no.1 (1955), 99-118. Charles E. Lindblom, *The Policy-Making Process* (Englewood Cliffs, NJ: Prentice-Hall, 1968).

Finally, the notion of policy change is essential for the study of securitization where the process of securitization can be associated with the process of change in the policy arena's perceptions about a particular issue. The nature of the arena reveals its propensity to respond to changes in ideas and interests.⁷⁹ Ideas and interests have been incorporated into research on policy formulation by Schneider and Ingram (1997), who proposed a policy design framework.⁸⁰ In the framework, ideas and actors are a part of the institutional arrangements, and interaction between the three elements is multi-directional and multi-level.

2.7.2 Institutional Analysis Literature

Similar to public policy studies, institutional analysis helps to capture the context of securitization processes. While the main units of analysis in public policy are policy arenas and their participants, institutional analysis is concerned with broader and deeper structures and processes that affect policy stability and change. It also helps to understand policy actors' beliefs and motivations behind varying policy choices.

Guided by their respective beliefs and constrained by established norms, both policy actors and institutions can be "a force in political inertia and political change."⁸¹ Institutions contribute to the trajectory of a policy as "the rules of the game"⁸² and through absorption of ideas and trends. "Once ideas become embedded in rules and norms, they constrain public policy."⁸³ At the same time, policy actors are capable of

⁷⁹ Michael Howlett, "Do Networks Matter? Linking Policy Network Structure to Policy Outcomes: Evidence from Four Canadian Policy Sectors 1990-2000," *Canadian Journal of Political Science/Revue Canadienne De Science Politique* 35, no.2 (2002), 235-267.

⁸⁰ Anne Larason Schneider and Helen M. Ingram, *Policy Design for Democracy* (Lawrence, KS: University Press of Kansas, 1997).

⁸¹ Peter A. Hall, "The Role of Interests, Institutions, and Ideas in the Comparative Political Economy of the Industrialized Nations," in *Comparative Politics: Rationality, Culture, and Structure*, eds., Mark Irving Lichbach and Alan S. Zuckerman (Cambridge: Cambridge University Press, 1997), 174-207.

⁸² Douglass C. North, *Institutions, Institutional Change and Economic Performance* (Cambridge: Cambridge University Press, 1990).

⁸³ Judith Goldstein and Robert O. Keohane, "Ideas and Foreign Policy: An Analytical Framework," in *Ideas and Foreign Policy: Beliefs, Institutions and Political Change*, eds., Judith Goldstein and Robert Keohane (Ithaca: Cornell University Press, 1993), 12.

manipulating institutionalized ideas and other institutional components to their advantage.

Thus, institutional analysis is a valuable tool for examining securitizing actors, the audience, and ways in which the broader environment affects their behavior. The institutional context is also partly responsible for forming actors' perceptions of existential threats to a referent object and thus their decision to go ahead with the securitization.

2.7.3 Strategic Management Literature

Strategic management is private sector oriented, and its major objectives are related to providing practical guidelines for doing business. In the past, the discipline used to downplay the role of public sector and package all its activity into the “regulatory environment” box in the competition category. Nevertheless, today the emphasis on creating public value is one of the emerging tools for bridging the gap between policy design and implementation.⁸⁴ By virtue of dealing with a policy process, the concept of public value serves as a link between the fields of strategic management and public policy.

Using principles of micro- and macroeconomics as well as organization theory, strategic management literature offers dozens of analytical frameworks for achieving the end goal of successful business.⁸⁵ Companies, their products, customers and competition are the four key elements of research in this field. The company is usually the unit of analysis, but all four elements are interdependent.

⁸⁴ Michael Mintrom and Joannah Luetjens, “Creating Public Value: Tightening Connections Between Policy Design and Public Management,” *Policy Studies Journal* (June 2015), 1-21. Various aspects and interpretations of ‘public value’ have been advanced by Mark H. Moore, *Creating Public Value: Strategic Management in Government* (Cambridge, MA: Harvard University Press, 1995), Barry Bozeman, *Public Value and Public Interest: Counterbalancing Economic Individualism* (Washington, DC: Georgetown University Press, 2007) and others.

⁸⁵ Victor Cheng, *Case Interview Secrets* (Seattle, WA: Innovation Press, 2012). James Richardson, “The Business Model: an Integrative Framework for Strategy Execution,” *Briefings in Entrepreneurial Finance* 17, no. 5-6 (August 2008): 133-44. Chris Jeffs, *Strategic Management* (Los Angeles: SAGE, 2008).

In public policy (PP) and institutional analysis (IA) terms, the company can be interpreted as a policy actor, the product – as a referent object, and the customer – as the audience. Whether the policy actor is a single individual or an organization (a group of individuals), tools for company analysis offered by strategic management remain valid. The referent object benefits significantly from the economic product-like analysis. This insight has been picked up by the IA as well.⁸⁶ The role of the audience as active customers capable of influencing policy actors and policy process in general seems to be better captured by strategic management than by the tools available in IA or PP. As for the competition, it can be seen as a policy environment characterized by institutions, which restrict and enable activity of actors who make their own strategic choices, have their customer base, and offer their own policy products. This perspective on policy environment leaves behind an arbitrary distinction between domestic and foreign, national and international competition, treating all actors as belonging to one playing field. Most importantly, this playing field is not a subjective construct; rather, it depicts a realistic dynamic environment shaped by its participants.

Overall, public policy, institutional analysis and strategic management are suitable candidates for enhancing securitization theory. As self-sufficient branches of social sciences with long research traditions, they offer a lot of analytical material, not all of which is relevant to this study. Hence, combining the appropriate insights calls for the adoption of a common language with major concepts interpreted in relation to securitization and the central research question. In order to do that, Section 2.8 offers a new definition of securitization and explores its components – type I, type II and type III inputs – by bringing together elements from the three disciplines. Detailed

⁸⁶ Elinor Ostrom, *Governing the Commons: the evolution of institutions for collective action* (Cambridge: Cambridge University Press, 1990). Elinor Ostrom, *Understanding Institutional Diversity* (Princeton: Princeton University Press, 2005).

theoretical relations between multidisciplinary concepts will serve as the foundation of the theoretical framework constructed in the next chapter (Chapter 3).

2.8 Redefining Securitization as a Policy Concept

In light of the review of the insights from strategic management, public policy and institutional analysis, the concept of securitization itself requires reassessment. It needs to be translated into the policy analysis language necessary for the construction of a coherent theoretical framework. The original definition derived from the International Relations literature describes securitization as

the positioning of a particular issue as an existential threat to a referent object by a securitizing actor through a speech act. The audience consent with the securitizing actor enables the latter to use extraordinary measures, which signifies “the suspension of ‘normal politics’ in dealing with the issue.”⁸⁷

Translated into policy analysis language, securitization can be understood as

a policy process driven by a securitizing actor who perceives a referent object as threatened and attempts to alter its performance, and shaped by the interdependent inputs from the larger institutional ecosystem (type I), the relevant policy arena (type II), and interaction between the referent object’s performance and corresponding institutional arrangement (type III).

Thus, for the purposes of this research, securitization is a policy process defined by three types of inputs. *Type I inputs* involve the deepest layers of the institutional ecosystem, namely the embedded institutions and the institutional environment. They constitute the conditions in which policy arenas operate. The other attributes of the institutional ecosystem are relevant temporal and spatial scope. The specification of these attributes usually reflects the timeframe for the policy process from agenda-

⁸⁷ See Section 2.5 “Securitization Theory as the Foundation for Theoretical Framework” of this chapter.

setting to the end of implementation, and the geographical extent of the impact of the system. *Type II inputs* are born as a result of securitizing actor(s) – policy stakeholders’ interaction within the policy arena. Finally, *type III inputs* originate from the linkages within and between institutional components, the institutional arrangement, and the performance of the referent object.

Although Type II inputs are the ones that distinguish securitization from other policy processes as they represent the conscious effort of a securitizing actor – the driver of securitization, all three input types affect the referent object’s performance via changes in the components of the relevant institutional arrangement. Moreover, the detailed look at the institutional ecosystem demonstrates that the referent object and the policy arena are located within the same institutional environment.

The next three sections provide detailed analysis of the elements of each of the three input types, their origin and value for the theoretical framework of this study.

2.8.1 Type I Inputs: Institutional Ecosystem

The actions of policy actors are shaped by their beliefs, resources and objectives, and are dependent on the attributes of the policy arena they operate in (interaction with the beliefs, resources and objectives of other actors), but are also affected by the larger institutional ecosystem beyond the policy arena.

2.8.1.1 Hierarchical Ordering of Institutions

Several inter-linked layers of institutions form the institutional ecosystem. They also create a bridge between the institutional ecosystem and the policy arena. The top (least deeply-rooted) layers of institutions are not only embedded into the lower institutional layers, but govern policy arena-specific transactions. Nevertheless, despite apparent links between various institutional and policy arena elements and for the purposes of maintaining a logical flow of the argument, the analysis of the

institutional ecosystem – home to type I inputs affecting securitization process – is performed in a separate section.

Institutional analysis represents a range of perspectives – historical, sociological, discursive and economic among others – on the study of institutions. They depart from different assumptions, and focal points of their analyses vary, but despite debates on the role of ideas,⁸⁸ exogenous vs. endogenous sources of institutional change,⁸⁹ institutional path dependence and its criticism,⁹⁰ several institutional qualities persist across these disciplines. First, institutions are an indispensable component of the policy-making process and thus policy analysis. Second, institutions enable and constrain actions of policy actors by influencing their beliefs, resources, and objectives. At the same time, actors are capable of creating, modifying and terminating institutions. Third, institutions are an instrument of communication as they help transmit information. Fourth, institutions are versatile and can take shape of values and norms, formal and informal rules, and other structures regulating different spheres of human interaction. Fifth, the shape of institutions depends on their scope and maturity. As numerous combinations of institutions varying in maturity and scope exist, discussions about institutional layering and nested-ness are prevalent.

The concepts of layering and nested-ness are related to the principle of hierarchical ordering of institutions.⁹¹ Layers of institutions are nested within one another and

⁸⁸ Peter A. Hall and Rosemary C. R. Taylor, "Political Science and the Three New Institutionalisms," *Political Studies* 44, no. 5 (1996): 936-57. John L. Campbell, "Institutional Analysis and the Role of Ideas in Political Economy," *Theory and Society* 27, no. 3 (1998): 377-409. Vivien A. Schmidt, "Taking ideas and discourse seriously: explaining change through discursive institutionalism as the fourth 'new institutionalism,'" *European Political Science Review* 2, no. 1 (2010): 1-25.

⁸⁹ North, *Institutions, Institutional Change and Economic Performance*, James G. March and Johan P. Olsen, "Institutional Perspectives on Political Institutions," *Governance* 9, no. 3 (1996): 247-64. Avner Greif, *Institutions and the Path to the Modern Economy* (Cambridge University Press, 2006).

⁹⁰ James Mahoney, "Path Dependence in Historical Sociology," *Theory and Society* 29, no.4 (2000): 507-548. Paul Pierson, "Increasing Returns, Path Dependence, and the Study of Politics," *American Political Science Review* 94, no. 02 (2000): 251-67. Ian Greener, "The Potential of Path Dependence in Political Studies," *Politics* 25, no. 1 (2005): 62-72.

⁹¹ Mark Granovetter, "Economic Action and Social Structure: The Problem of Embeddedness," *American Journal of Sociology* 91, no. 3 (1985): 481-510. Ostrom, *Governing the Commons*. Vinod K.

have the ability to influence the other layer through feedback and constraints, albeit deeply rooted layers experience minimal changes over long periods of time and top layers are more susceptible to change. For instance, Williamson (2000) discusses three levels of institutions, from the most deeply embedded to the most easily adjustable ones: (L1) embedded institutions (customs, traditions, religion, etc.), (L2) institutional environment (more concrete, ‘formal rules of the game’ such as judiciary and political system) and (L3) institutions governing individual transactions (structures to implement formal rules of the game; for instance, contracts).⁹² In the institutional analysis and development (IAD) framework, Ostrom identifies three hierarchical categories of rules: constitutional, collective choice, and operational rules-in-use.⁹³ Moreover, Ostrom’s IAD framework, along with Saleth and Dinar’s institutional decomposition and analysis (IDA) framework, follows Davis and North’s distinction between the institutional environment and the institutional arrangement.⁹⁴ The meaning of the institutional environment is the same for all of the above authors, including Williamson. Institutional arrangement is represented by the L3 institutions in Williamson, three categories of rules in Ostrom, and three types of rules – legal, policy, and organizational – in Saleth and Dinar.

The institutional environment consists of “general institutions dealing with other spheres of the economy, ranging from constitution and macro-economic policies to social and political institutions.”⁹⁵ In public policy literature, these are the conditions

Aggarwal, *Reconciling Institutions: Nested, Horizontal, Overlapping, and Independent Institutions*, February 13, 2005.
<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.536.3500&rep=rep1&type=pdf>.

⁹² Oliver E. Williamson, “The New Institutional Economics: Taking Stock, Looking Ahead,” *Journal of Economic Literature* 38, no. 3 (2000), 597.

⁹³ Elinor Ostrom, “Institutional Rational Choice: An Assessment of the Institutional Analysis and Development Framework,” in *Theories of the Policy Process*, ed., Paul A. Sabatier, 1st Ed. (Boulder, CO: Westview Press, 1999). Ostrom, *Understanding Institutional Diversity*, 49-58, Paul D. Aligica and Mike McGinnis, “Institutional analysis and political economy,” in *Routledge Handbook of Public Policy*, eds., Eduardo Araral Jr., Scott Fritzen, Michael Howlett, M. Ramesh, and Xun Wu (Routledge, 2013).

⁹⁴ Lance E. Davis, Douglass C. North, and Calla Smorodin, *Institutional change and American economic growth* (Cambridge: University Press, 1971), 5-6. R. Maria Saleth and Ariel Dinar, *The institutional economics of water: a cross-country analysis of institutions and performance* (Cheltenham, UK: Edward Elgar, 2004). Ostrom, *Understanding Institutional Diversity*.

⁹⁵ Saleth and Dinar, *The institutional economics of water*, 90.

generally referred to as external conditions. In Advocacy Coalition Framework (ACF), the institutional environment is described by the relatively stable parameters and external system events. ACF labels three types of IAD's external underlying assumptions as relatively stable parameters.⁹⁶ These include the attributes of the problem area, distribution of natural resources, fundamental socio-cultural values and social structure, and basic rules (i.e., constitution). Hence, ACF parameters and IAD assumptions are roughly the same. Political stream of Multiple Streams Model (MSM) partly considers political institutions of the institutional environment. PET, however, does not provide much insight into this subject. Generally, in public policy analysis, the institutional environment is acknowledged as a grand pillar decision-making processes rest on, but it is often treated as an external, often superficially analyzed, variable.

In strategic management, the institutional environment is understood as the general environment in which a more narrow competitive environment (in policy analysis terms, a policy arena or a policy subsystem) is placed. Instead of identifying nested layers of institutions, the field of strategic management sees institutional factors which affect the performance of competitive environment and firms as a number of trends. The general environment includes six broad trends and events: demographic, sociocultural, political/legal, technological, economic, and global.⁹⁷ Aspects from these six groups of factors are important in the policy context. Sociocultural, economic and political/legal factors are already widely considered in the institutional analysis. Demographic trends and events have an effect on the public opinion which is a resource for policy actors. Global factors are generally subdivided into economic

⁹⁶ Paul A. Sabatier and Hank C. Jenkins-Smith, "The Advocacy Coalition Framework: An Assessment," in *Theories of the Policy Process*, ed., Paul A. Sabatier, 2nd Ed. (Boulder, CO: Westview Press, 2007).

⁹⁷ Thomas J. Dean, Robert L. Brown, and Charles E. Bamford, "Differences in Large and Small Firm Responses to Environmental Context," *Strategic Management Journal* 19, no. 8 (1998): 709-28. Joan Magretta, *Understanding Michael Porter: The Essential Guide to Competition and Strategy* (Boston, MA: Harvard Business Review Press, 2012). Gregory Dess, G.T. Lumpkin, Alan Eisner and Gerry McNamara, *Strategic Management: Creating Competitive Advantages*, 7th ed. (McGraw-Hill Education, 2014), 43 (Exhibit 2.2).

and political trends and events in relation to the policy processes. Finally, technological innovation matters as it is directly related to beliefs and resources of the actors, and thus, indirectly, to the potential changes in the institutional ecosystem. It is capable of changing the nature and functions of the institutions, erasing borders between them, creating new institutions and making old ones obsolete. Despite its importance, the role of technology is not well integrated into the institutional ecosystem. Both public policy and institutional analysis scholars have called for a more precise incorporation of technology into the explanation of policy processes.⁹⁸

The level of the institutional arrangement is at the top of the hierarchically structured ecosystem, where institutions become narrower in scope, and the institution-to-institution and institution-to-policy actor boundaries differ depending on the institutional environment and characteristics of the policy arena. As a result, conceptualization of the institutional arrangement is a challenging task. One major issue is differentiating between institutions and organizations. Institutional analysis scholars mentioned above offer contradicting views. For example, North (1990) characterizes institutions as the rules of the game, and organizations as the actors playing by these rules. Williamson (1985) treats institutions and organizations equally. In addition to these perspectives, Scott (2013) cites Dobbin (1994), Meyer and Rowan (1977), and Zucker (1983), who argue that due to a strong reciprocal relationship between institutional processes and organizational structure, “the modern organization is itself an institutionalized form.”⁹⁹ In fact, each perspective adds to the understanding of the complex nature of the institutional arrangement. The theoretical framework of this study aims to reconcile the differences between these perspectives.

⁹⁸ Oliver E. Williamson, *Institutions and economic organization: the governance perspective* (Washington, DC: World Bank, 1994), 1; Williamson, “The New Institutional Economics,” 600; Saleth and Dinar, *The institutional economics of water*, 16, 41-43; Greif *Institutions and the Path to the Modern Economy*, 11; Sabatier and Jenkins-Smith, “The Advocacy Coalition Framework: An Assessment” (ACF and issues of policy learning and perceptions of technological progress and innovative ideas).

⁹⁹ W. Richard Scott, *Institutions and Organizations: Ideas, Interests, and Identities*, 4th Ed. (Los Angeles, CA: SAGE, 2013), 183.

2.8.1.2 Horizontal Linkages between Institutions

In addition to the hierarchical linkages between layers of nested institutions, there are horizontal linkages between the same-layer institutions. The position of an institution within a particular layer is its important attribute as it can help predict the patterns of inter-institutional (non-)interaction. Aggarwal (1998) is one of the scholars who have shed light on the horizontal linkages between institutions. If there is no link between institutions of the same layer, they can be called independent. Independent institutions do not communicate at all as they have completely separate jurisdiction. As a result of non-communication, the probability of conflict between them is almost non-existent. If there *is* a link between institutions, they can be seen as either overlapping, or complementary. Overlapping institutions can have “similar mandates – at least in part.”¹⁰⁰ Complementary¹⁰¹ institutions work together towards the same broad objective. Overlapping institutions face potential conflicts in areas where their mandates intersect. Complementary institutions are not as likely to clash as overlapping institutions, unless they happen to overlap or disagree on their broad common objective.

2.8.1.3 Summary

Type I inputs refer to the institutional ecosystem in which policy actors operate and multiple policy arenas co-exist. The subject of institutional analysis is broad and offers countless interpretations of institutions, their attributes and functions. As the source of the underlying causes of securitization, institutions can be perceived as

¹⁰⁰ Aggarwal, *Reconciling Institutions*, 3.

¹⁰¹ Modified from Vinod K. Aggarwal, *Institutional designs for a complex world: bargaining, linkages, and nesting* (Ithaca: Cornell University Press, 1998) ‘parallel’ and Aggarwal, *Reconciling Institutions* ‘horizontal’ institutions; meaning is the same as Aggarwal (1998, 2005).

nested layers ordered hierarchically with horizontal connections within the same layer.

The three disciplines add to the overall understanding of the complex subject of institutions. Institutional analysis complements public policy frameworks, while strategic management offers to treat institutional environment as a collection of trends. All these perspectives will be integrated into the theoretical framework of this study in the following chapter.

2.8.2 Type II Inputs: Factors Originating from the Policy Arena

Focus on the policy arena is advantageous for painting a large, yet detailed picture with “relevant actors, the more general institutional context, and the characteristics of the decision situation from a multi-actor perspective.”¹⁰² This research relies on a number of policy process frameworks that address the complexity of “interdependent political environments where hundreds of participants interact in the context of nested institutional arrangements, uneven power relations, and uncertain... information about problems and alternatives.”¹⁰³ The frameworks “represent different research programs marked by different research cultures, assumptions, scopes, and emphases on major concepts.”¹⁰⁴ But they complement each other in putting together the pieces of policy arena participants, structures and processes.

Inquiry into multiple frameworks of policy analysis helps identify major policy arena objects, their attributes and functions. Essential characteristics of the policy arena components are picked up from Advocacy Coalition Framework (ACF), Multiple Streams Model (MSM), and Punctuated Equilibrium Theory (PET).

¹⁰² Wil A. H. Thissen and Warren E. Walker, eds., *Public Policy Analysis: New Developments* (New York: Springer, 2013), 84

¹⁰³ Christopher M. Weible, Paul A. Sabatier and Kelly McQueen, "Themes and Variations: Taking Stock of the Advocacy Coalition Framework," *Policy Studies Journal* 37, no. 1 (2009): 121.

¹⁰⁴ Christopher M. Weible, Paul A. Sabatier, Hank C. Jenkins-Smith, Daniel Nohrstedt, Adam Douglas Henry and Peter deLeon, “A Quarter Century of the ACF: An Introduction to the Special Issue,” *The Policy Studies Journal* 39, no. 3 (2011), 358.

Although nominally they are frameworks, theories and models, in fact, all of the above can be classified as frameworks. A number of scholars have called for a distinction between frameworks, theories and models for the purpose of creating a common language of analysis, but there is no universal separation of these concepts and more often than not they are used interchangeably.¹⁰⁵ Nevertheless, these concepts are very different. The framework is comprised of theories, which in their turn specify elements of the framework relevant to a certain question and make general working assumptions. Theories then consist of models that make precise assumptions about a limited set of variables. Hence, all of the above are treated as frameworks rather than theories or models, and are described below in order to understand how their contributions fit into the analytical framework to be created for the purposes of this research.

2.8.2.1 Relevant Public Policy Frameworks and Theories

ACF, MSM, and PET offer useful insights into who policy actors are, their beliefs and tools they employ to achieve their objectives. Many elements originating from these frameworks will be incorporated into the theoretical framework in the next chapter. They will be combined to further illuminate the process of securitization, namely classify the various roles of policy actors, create a typology of securitizing actors, explore differences between homogenous and heterogeneous policy arenas, and account for various triggers of securitization processes.

Advocacy Coalition Framework (ACF)

ACF is one of the most advanced frameworks in public policy analysis. The three most important insights that ACF offers are attributes of the actors, typology of beliefs, and avenues of policy change. In relation to the process of securitization,

¹⁰⁵ Elinor Ostrom, *Understanding Institutional Diversity* (Princeton, NJ: Princeton University Press, 2005).

ACF is a valuable tool for understanding the structure of a policy arena, the interplay between securitizing actor and the audience, actors' beliefs, and possible triggers of securitization process.

According to the framework, a policy arena is composed of a single hegemonic or multiple competing advocacy coalitions. Members of the same coalition possess certain resources,¹⁰⁶ share "a set of normative and causal beliefs,"¹⁰⁷ their actions are coordinated, and policies they design are "translations of [their] beliefs."¹⁰⁸ An individual actor is "boundedly rational with limited abilities to process stimuli; relies on beliefs as the principal heuristic to simplify, filter, and sometimes distort stimuli; and remembers losses more than gains."¹⁰⁹

Second, actors' belief system is multi-layered with *deep core beliefs* constituting the foundation, *policy core beliefs* – the middle, and *secondary beliefs* – the top, or the least stable, part of the system. As the definition suggests, *deep core beliefs* are the broadest assumptions about the workings of the world. *Policy core beliefs* are also resistant to change, but are more flexible and able to adjust in response to new information and experience. *Secondary beliefs* are the narrowest in scope and the most amenable to change.¹¹⁰ ACF's classification of beliefs is discussed further in this chapter in Section 2.8.1.2 as part of the policy actors' attributes.

Third, policy change occurs via four possible paths: external subsystem events or shocks, policy-oriented learning, internal subsystem events, and negotiated agreements between coalitions. External events include broad socio-economic changes, and "can foster change in a subsystem by shifting and augmenting

¹⁰⁶ Paul A. Sabatier and Christopher M. Weible, "The Advocacy Coalition Framework: Innovations and Clarifications," in *Theories of the Policy Process*, ed., Paul Sabatier, 2nd Ed. (Boulder, CO: Westview Press, 2007), 201-02. The authors identify six categories of coalition resources.

¹⁰⁷ Paul A. Sabatier, "The advocacy coalition framework: revisions and relevance for Europe," *Journal of European Public Policy* 5, no. 1 (1998), 103.

¹⁰⁸ Sabatier & Jenkins-Smith, "The Advocacy Coalition Framework: An Assessment," in *Theories of the Policy Process*, ed., Paul A. Sabatier, 1st Ed. (Boulder, CO: Westview Press, 1999), 118-20.

¹⁰⁹ Weible et al., "Themes and Variations," 122.

¹¹⁰ *Ibid.*, 122-123.

resources, tipping the power of coalitions, and changing beliefs.” Learning “result[s] from experience and/or new information... and mainly affects secondary beliefs.” Internal events generally point at failures in the current subsystem practices and are aimed at fixing those. Negotiated agreements involve two or more coalitions, and require one of the nine identified conditions in order to take place.¹¹¹

All of the above changes affect secondary beliefs and the periphery of the core policy beliefs. Hence, the deep and policy core beliefs remain largely unchanged which explains rare fundamental policy shifts.¹¹² Moreover, multiple empirical tests of ACF have shown that (a) “not all external shocks lead to major policy change, and (b) the effects of external shocks cannot be understood in isolation from internal subsystem affairs, meaning that intervening effects between external shocks and policy change originating from inside the subsystem including changes in coalition membership, strategies, beliefs, and minor policy changes should be considered as well.”¹¹³

ACF has its limitations too. The framework has been criticized for the lack of attention to a number of its essential elements,¹¹⁴ but only some of them are relevant to the construction of the theoretical framework of this study. To begin with, in terms of the policy actor attributes, ACF is narrowly focused on beliefs, and although resources possessed by the actors are mentioned quite often and are a part of the

¹¹¹ Weible et al., "Themes and Variations," 123-124.

¹¹² Thissen and Walker, *Public Policy Analysis*, 25.

¹¹³ Weible et al., "Themes and Variations," 128.

¹¹⁴ the process of transition from one stable advocacy coalition to another (Philip Leifeld, "Reconceptualizing Major Policy Change in the Advocacy Coalition Framework: A Discourse Network Analysis of German Pension Politics," *Policy Studies Journal* 41, no. 1 (2013), 171), coalition defection, the devil shift, negotiated agreements, political opportunity structures, self-interest, multiple events as opposed to a single event causing policy change, role of public opinion (Weible et al., "A Quarter Century of the ACF," 357; Weible et al., "Themes and Variations," 131-132), the issue of coordination within and between coalitions and larger subsystems (Matthew Zafonte and Paul Sabatier, "Shared Beliefs and Imposed Interdependencies as Determinants of Ally Networks in Overlapping Subsystems," *Journal of Theoretical Politics* 10, no. 4 (1998): 473-505; Fenger and Klok in Weible et al., "Themes and Variations," 134), measuring learning and linking it to policy change (Eberg in Weible et al., "Themes and Variations," 131), operationalization of 'translation' of beliefs into practice (Smith in Weible et al., "Themes and Variations," 133), and the role of policy brokers in the framework (Karin Ingold and Frédéric Varone, "Treating Policy Brokers Seriously: Evidence from the Climate Policy," *Journal of Public Administration Research and Theory* 22, no. 2 (2011): 319-46; Duane Bratt, "Clarifying the Policy Broker in the Advocacy Coalition Framework," *International Conference on Public Policy*, June 2013.).

framework, they are never discussed in detail. The role of the policy broker needs to be explored as well because the concept may be important in relation to the securitizing actor and the audience in the securitization process due to the fluid nature of these participants in the policy arena as noted by many critics of the original securitization theory. Other potential triggers of securitization processes, internal and external to a policy arena, should be surveyed to account for the major explanatory variables. Finally, factors outside policy arena, referred to as ‘relatively stable parameters’ and ‘long-term coalition opportunity structures’, require the use of institutional analysis tools to strengthen links with other elements of the framework.

Multiple Streams Model (MSM)

Complementary to ACF, Multiple Streams Model (MSM) offers further clarifications on the attributes of actors and the place of policy brokers in the policy process, as well as reasons for changes in agenda-setting. Unlike ACF which discourages the separation of the policy process into discrete stages, MSM has been seen as a framework for the analysis of the first stage of the policy cycle, the agenda-setting. MSM does not make a distinction between a more general policy system and a more narrow policy arena. But even though it may seem less focused and less advanced than ACF, MSM offers some useful insights.

The Model examines interaction of three independent streams – problem, policy, and political, the role of policy entrepreneurs and other factors in constructing and utilizing temporal policy windows by coupling (bringing together) the three streams to bring certain issues of interest onto the government agenda. The three streams are interactive because “how a problem is defined depends partly on what solution is available and whether politicians are receptive.”¹¹⁵ Policy windows “open and close based on dynamic interaction of political institutions, policy actors and articulation of

¹¹⁵ Rick Travis and Nikolaos Zahariadis, "A Multiple Streams Model of U.S. Foreign Aid Policy," *Policy Studies Journal* 30, no. 4 (2002), 497.

ideas in the form of proposed policy solutions.”¹¹⁶ In fact, they can be compared to critical junctures because they are “fleeting ‘opportunities’ for advocates of proposals to push their pet solutions, or to push attention to their special problems.”¹¹⁷ These advocates, policy entrepreneurs, “attach problems to their solutions and find receptive politicians to their ideas”¹¹⁸ to make use of policy windows. However, the presence of policy entrepreneur is not a prerequisite for the coupling of three streams. Other facilitating conditions include predictable and unpredictable focusing events as well as the origin (problem or political) and level of institutionalization/routinization of a window.

MSM contributes to the actor-specific analysis zooming in on the role of policy entrepreneurs. They are similar to policy brokers in ACF, but are portrayed as less neutral with explicit self-interest. It also broadens the range of potential triggers of policy change, but samples of focusing events are not as well systematized as ACF’s paths of policy change. The model also integrates what ACF refers to as the relatively stable parameters which are the characteristics of the political stream. This is one of the strongest qualities of MSM, because so-called environmental (political system) factors are seamlessly incorporated into the framework. But they represent only a partial one-sided view of the broader institutional context as they deal purely with political factors. In order to make a picture more complete, other relatively stable parameters from ACF could be added to the political stream of MSM: basic attributes of the problem area (referent object), fundamental socio-cultural values and social structure, and basic institutional rules.¹¹⁹ Finally, it addresses the moment – policy window – of change, although the viability of this proposition has to be empirically

¹¹⁶ Michael Howlett, M. Ramesh, and Anthony Perl, *Studying public policy: policy cycles & policy subsystems* (Don Mills, Ont.: Oxford University Press, 2009). (Chapter 4: Agenda Setting).

¹¹⁷ John W. Kingdon, *Agendas, alternatives, and public policies* (New York: Longman, 1995), 165.

¹¹⁸ Travis and Zahariadis, "A Multiple Streams Model of U.S. Foreign Aid Policy," 497.

¹¹⁹ From the Advocacy Coalition Framework Flow Diagram (Paul Sabatier, ed., *Theories of the Policy Process*, 2nd Ed. (Boulder, CO: Westview Press, 2007).

tested in relation to the process of securitization considering the criticism of excessive focus on a possibly non-existent moment of securitization.

Punctuated Equilibrium Theory (PET)

Punctuated Equilibrium Theory (PET)¹²⁰ encompasses both stability and change in the policy process,¹²¹ and “focuses on interaction of political institutions, interest mobilizations, and boundedly rational decision-making.”¹²² Central elements of PET are the policy subsystems, policy images and policy venues. Policy subsystems can be hetero- or homogenous with the latter being more resistant to policy change. Decision-makers inside policy subsystems are the “prisoners to their limited attention spans, and the key governor of the allocation of attention: emotion.”¹²³ In this respect, PET is similar to ACF, but unlike ACF, it focuses on shifts in attention rather than rooted beliefs. Attention shifts occur episodically, not gradually; they also explain choice inconsistencies and account for choice reversals.¹²⁴ Functional specialization and robust organizational structure help overcome limitations of human nature by allowing parallel, rather than serial, processing of inputs.

Policy images and policy venues are mutually dependent meaning that change in one can cause change in the other and vice versa, and play a critical role in the policy process. Policy image is a representation of how the public and policy elites understand policies. Policy venues are “sets of institutions where authoritative decisions over policy are made.”¹²⁵ Decision-makers use the strategy of ‘venue shopping’ in order to control policy images and search for appropriate policy venues. The strategy is implemented through either one or a combination of (a) appeals to a

¹²⁰ David F. Prindle, "Importing Concepts from Biology into Political Science: The Case of Punctuated Equilibrium," *Policy Studies Journal* 40, no. 1 (2012): 21-44. The author suggests that the theory should be renamed as *punctuated incrementalism*.

¹²¹ James L. True, Bryan D. Jones, and Frank R. Baumgartner, "Punctuated-Equilibrium Theory: Explaining Stability and Change in American Policymaking," In *Theories of the Policy Process*, ed., Paul A. Sabatier, 2nd Ed. (Boulder, CO: Westview Press, 2007), 97-116.

¹²² Frank R. Baumgartner and Bryan D. Jones, *Agendas and instability in American politics* (Chicago: University of Chicago Press, 1993).

¹²³ Jones and Baumgartner, "From There to Here," 3.

¹²⁴ Jones 1994.

¹²⁵ Baumgartner and Jones, *Agendas and instability in American politics*.

broader audience, (b) actions promoted by concerned outsiders, (c) attacks on current policy arrangements from decision-makers in other venues aiming to extend their own policy jurisdictions.¹²⁶ As a result, actions within and between policy subsystems (by decision-makers, concerned outsiders, actors from other policy subsystems) produce two types of feedback. Neither one has to directly lead to a policy change, but while negative feedback is “a force of balance and equilibrium,”¹²⁷ positive feedback is a force of “radical change.”¹²⁸

PET adds an insight into the activity of MSM’s policy entrepreneurs. Providing a more detailed account of the actions of policy entrepreneurs, venue shopping can be interpreted as one of the tools they employ in order to facilitate coupling of the three streams and opening a policy window. Similar to MSM’s policy entrepreneurs, ACF’s policy brokers could be seen using this same tool as well. Analysis of venue shopping in PET can also be applied to the intra- and inter-coalition communication or coordination in the ACF. PET’s positive and negative feedback does not have an equivalent in MSM, but relatively stable parameters and long-term coalition opportunity structures of ACF can be compared to feedback, although there is no distinction between feedback reinforcing incrementalism and causing change.

However, the insights from the analyzed public policy frameworks into policy actors’ resources and objectives are limited. While ACF offers a comprehensive view on policy actor’s beliefs, none of the frameworks devote much attention to resources and objectives as the key attributes of policy actors. This is where other public policy works and strategic management literature become useful. In continuation of the type

¹²⁶ Baumgartner and Jones, *Agendas and instability in American politics*.

¹²⁷ Bryan D. Jones and Frank R. Baumgartner, "From There to Here: Punctuated Equilibrium to the General Punctuation Thesis to a Theory of Government Information Processing," *Policy Studies Journal* 40, no. 1 (2012), 3.

¹²⁸ Baumgartner and Jones, *Agendas and instability in American politics*.

II inputs analysis, policy actors' key attributes – resources, objectives, and beliefs – are discussed below followed by the examination of triggers of policy change.

2.8.2.2 Attributes of a Policy Actor: Resources, Objectives, and Beliefs

Resources

The overview of existing policy-relevant resources shows that it is an objective concept meaning that resources exist independently from policy actors. The ability to use these resources turns them into some actors' strengths and other actors' weaknesses. Since resources are considered to be a somewhat self-explanatory concept, detailed accounts of their typologies and categorizations in public policy literature are scarce. Often explanations stop at the separation of resources into several groups including political, legal, economic and organizational. The most commonly used interpretation of policy-related resources is Hood (1986)'s NATO typology. NATO abbreviation stands for: nodality (access to information related to the policy actor's access to power), authority (legal power), treasure (money), and organizations (ability to organize).¹²⁹ Weible (2006) contributes a six-fold typology of resources, which include legal authority, public opinion, information, mobilizable troops, financial resources, and skillful leadership.¹³⁰ Dente (2014) provides one of a few detailed accounts of actors' resources, and groups them as political, economic, legal, and cognitive action resources.¹³¹ The last group, cognitive action resources, makes a connection between actors' resources, bounded rationality, beliefs, uncertainty, and information complexity.

Understanding of resources is more nuanced in strategic management literature than in public policy analysis mainly because resources are directly linked to the firm's

¹²⁹ Hood, *The Tools of Government*.

¹³⁰ Sabatier and Weible, "The Advocacy Coalition Framework," 201 – 204.

¹³¹ Bruno Dente, *Understanding Policy Decisions* (Cham: Springer International Publishing, 2014), 35-45.

competitiveness and survival. So-called Resource-Based View of the Firm (RBV), a framework that combines both internal analysis of the firm and external analysis of the industry and competitive environment, splits the firm's resources into three groups: tangible, intangible and organizational¹³² (See Table 2.1). The only obvious limitation of a firm-based analysis is the absence of political/legal resources, while the rest of the resources are transferrable into the policy context.

Table 2.1: Resources of the Firm according to the Resource-Based View (RBV) Framework

Tangible	Financial Physical Technological Organizational
Intangible	Human Innovation and creativity Reputation
Organizational	Firm competencies/skills Capacity to combine tangible and intangible resources

Source: Dess et al., *Strategic Management*.

As public policy and strategic management perspectives demonstrate, countless classifications of resources exist. Based on their review, a comprehensive classification of resources is suggested in Chapter 3 as part of the theoretical framework.

Objectives

In addition to resources, actors possess various objectives. Some of the frameworks touch upon actors' objectives directly or indirectly, but the concept requires further elaboration. The process itself does not have a specific goal; instead, policy actors who pursue their respective objectives initiate and manipulate the securitization process. Their objectives may or may not be directed at neutralizing identified threat or immediately securing the referent object. In fact, if security of a referent object could be achieved immediately, a securitization process would not take place. Thus,

¹³² Dess et al., *Strategic Management*, 82-89.

securitized referent object and *secured* referent object are by no means synonyms. It looks like a paradoxical situation: the pretext for securitization process is the need to secure a referent object, but it also brings the referent object into the ranks of security issues, which is likely to exacerbate the perception that the threat is existential, solutions are difficult to attain, the referent object is absolutely indispensable and its full security is unfeasible in the short to medium term (securitizing the referent object). Hence, by initiating a securitization process, policy actors acknowledge that the referent object is insecure and that they are ready to take measures to secure it. At the same time, there is no guarantee that the goal of securing the referent object will be realized.

The proclaimed (or inferred) goal may or may not be the only or the ultimate goal for all the actors. All goals can be divided into two broad categories: content- or process-related. *Content-related goals* tend to be more short-term oriented and narrow, such as specifically relating to the referent object. *Process-related goals* are more implied or hidden, complex and harder to disentangle, as they are more deeply involved with interactions between the actors, while a referent object serves as a proxy for inter-actor contact.¹³³ In policy-making, many actions are driven by process-related goals, thus, making it harder to trace the rationale behind the actors' decisions and make sense of certain policy choices. For example, one can argue that Japan would like to decrease its dependence on imported natural gas (a content-related goal). But its imports have been increasing annually not only due to growing domestic demand, but also because the Japanese government would like to secure long-term supplies of a vital resource and maintain healthy relations with its trading partners in the Middle East (a process-related goal). Thus, since securitization generally involves participation of more than one policy actor, multiple overlapping objectives drive the

¹³³ Bruno Dente, Paolo Fareri and Josee Ligteringen, *The waste and the backyard: the creation of waste facilities: success stories in six European countries* (Dordrecht: Kluwer Academic Publishers, 1998), Section 8.1.2. Dente, *Understanding Policy Decisions*, 34.

process. Regardless of their ultimate goal, the more actors share the perception that the referent object is threatened and continue to push for measures to secure it, the more persistent securitization process becomes.

Beliefs

Similar in their qualities to intangible resources, beliefs are difficult to capture and measure. But their role is indispensable in linking the actors to their objectives and the institutional environment they belong to. Classification of beliefs is borrowed from ACF. More specifically, ACF distinguishes three hierarchical levels of policy actors' beliefs. *Deep core beliefs* form the foundation of the actors' beliefs and represent the intrinsic connection with the deepest level of institutions – embedded institutions (traditions, culture, etc.). *Policy core beliefs* are influenced by the deep core beliefs as well as informed by the higher levels of institutions located in closer proximity to the policy arena. But the context of policy arena is usually the most decisive factor in the formation of this level of beliefs as they are often discussed and contested. As a result, policy core beliefs have a higher propensity to change. Finally, *secondary beliefs* are embedded into the policy core beliefs and are the narrowest in scope. They refer to policy actors' views and opinions on specific policy issues and events within and outside the policy arena. Being on top of the belief pyramid, secondary beliefs are the most volatile and predisposed to change.

2.8.2.3 Triggers of Policy Change

Triggers of policy change are discussed in more or less detail in ACF (four paths of policy change), MSM (focusing events) and PET (internal and external shocks). They are important due to their ability to alter perceptions, reallocate resources and ultimately reshuffle whole policy subsystems, and create changes in the institutional environments and structures. All these changes could create small- and large-scale policy change. In addition to these three well-recognized frameworks in the public

policy literature (ACF, MSM and PET), other authors have considered the role of events capable of triggering change. Rose (1988, 1991) examined lesson-drawing, Hall (1993) discussed social learning, and Heclo (1974) addressed exogenous sources of change.¹³⁴ Major types of events triggering policy change have been summarized by Howlett, Ramesh and Perl (2009).

Howlett, Ramesh and Perl (2009) make a distinction between normal (incremental) and atypical change.¹³⁵ Hence, sources of change correspond to this distinction. The major source of normal change is the structure of a policy subsystem functioning as normal, as long as the subsystem does not experience any fundamental (atypical) changes. The structure of the policy subsystem affects policy ideas that enter the policy process, shapes policy discourse, influences the choice of policy instruments, and determines the course of policy outcomes' evaluation. Normal change involves slight adjustments of existing policies.

However, the authors' classification of atypical change sources is not very precise, and requires further clarification. The authors discuss six types of sources of atypical change, with two classified as exogenous, other two as endogenous to the policy subsystem, and the last two not belonging to any category. Exogenous sources include systemic perturbations, such as wars, disasters and elections, and policy spillovers via subsystem intersection or convergence. Endogenous sources consist of a venue change and policy learning. The last two uncategorized sources of atypical change, namely policy entrepreneurs and processes contributing to the fragmentation/weakening of the policy monopoly, belong to the group of endogenous sources of change. Policy entrepreneurs introduce new ideas into the policy subsystem. Even if a policy entrepreneur is originally an outsider, facilitating

¹³⁴ Richard Rose, "What is Lesson-Drawing?" *Journal of Public Policy* 11, no. 01 (1991): 3-30. Richard Rose, *Lesson-Drawing in Public Policy* (Chatham, NJ: Chatham House, 1993). Peter A. Hall, "Policy Paradigms, Social Learning, and the State: The Case of Economic Policymaking in Britain," *Comparative Politics* 25, no. 3 (1993): 275-96. Hugh Heclo, *Modern social politics in Britain and Sweden; from relief to income maintenance* (New Haven: Yale University Press, 1974).

¹³⁵ Howlett, Ramesh and Perl, *Studying Public Policy*, 202-6.

conditions and timing (coupling of streams) endogenous to the subsystem would matter greatly for the ability of the entrepreneur to infiltrate the subsystem. As for the second uncategorized source of atypical change, according to PET, policy monopolies enhance stability and hinder change¹³⁶, but despite persistent actions of policy monopolies aimed at preserving their dominance, several common processes of policy development – layering, drift, conversion, and redesign¹³⁷ - can lead to their decline.

Importantly, policy change is not caused simply by the presence of normal and/or atypical sources of change. For the change to occur, these sources have to be combined with the policy actors' reaction to them. This is especially true for the exogenous sources of change, because when the same exogenous triggers appear in different contexts, it is the difference in actors' perceptions and reactions that explains the variation in policy responses.

In theory, triggers of policy change do not strictly fall under any of the three input types. But due to their high degree of influence on the actors' behavior and stability of policy subsystems, they have to be considered as part of the theoretical framework. In Chapter 3, they will be discussed in relation to policy actors' types and functions.

2.8.2.4 Summary

Type II inputs originate from the policy arena where policy actors with various resources, objectives and beliefs interact. Examined public policy and strategic management concepts help distinguish different roles of policy actors and their

¹³⁶ Baumgartner and Jones, *Agendas and instability in American politics*. Roderick A. W. Rhodes, *Understanding governance: policy networks, governance, reflexivity, and accountability* (Buckingham: Open University Press, 1997). Linze Schaap and Mark J. W. van Twist, "The dynamics of closedness in Networks," in *Managing Complex Networks*, eds., Walter. J. M. Kickert, Erik-Hans Klijn and Joop F. M. Koppenjan (London: SAGE Publications, 1997), 62-78. Thomas A. Birkland, *After disaster: agenda setting, public policy, and focusing events* (Washington, DC: Georgetown University Press, 1997).

¹³⁷ Howlett, Ramesh and Perl, *Studying Public Policy*, 204.

attributes, define securitizing actors' functions, and survey policy change triggers, which could potentially serve as triggers of securitization processes.

The following section on type III inputs takes a closer look at the institutional arrangement in relation to the performance of a referent object. It demonstrates that within a specific institutional arrangement (i.e., governing country-specific oil and gas supply chains), institutional components including 'rules' and 'players' (organizations) have to co-exist for the highest level of the institutional ecosystem to remain functional.

2.8.3 Type III Inputs: Institutions – Referent Object Link

The institutional arrangement level is a meeting point of type I inputs from the institutional ecosystem and type II inputs from the policy arena. Sector- and issue-specific institutions representing this level absorb countless factors shaping securitization process. Absorbed inputs have two major features. First, they create feedback for the micro- (policy arena) and macro-(institutional ecosystem) levels of the framework. Second, they influence type III inputs which situate the referent object within the theoretical framework and directly affect the referent object's performance. Similar to other types of inputs, type III inputs can propel the receiving referent object to generate feedback. Type III inputs of this study are the institutional arrangements governing oil and gas supply chains in three different national contexts.

2.8.3.1 Institutional Decomposition and Analysis (IDA)

For the analysis of the oil and gas supply chains as part of the institutional ecosystem, this study's theoretical framework adopts Institutional Decomposition and Analysis (IDA) approach proposed by Saleth and Dinar (2004). Originally developed for the analysis of the water sector, the IDA "map[s] and evaluate[s] layers of linkages... in

institution – [sector] performance interaction.”¹³⁸ For the purposes of this study, *the referent object performance is equated with what IDA conceptualizes as sector performance*. In IDA, the influence of institution on the referent object’s performance is revealed through clear separation of the institutional components from the sector performance. Decomposed sector performance has four dimensions: physical, financial, economic, and equity.¹³⁹ But parameters of these dimensions chosen to reflect characteristics of the water sector will be reviewed in Chapter 3 in relation to the referent object of this study because oil and gas and water sectors are by no means identical.

2.8.3.2 Institutions Decomposed: Legal, Policy, and Organizational Dimensions

An institution in IDA is “conceptualized as an entity defined interactively by three main components: the legal framework, policy regime, and administrative or organizational arrangements.”¹⁴⁰ The three components affect performance of the oil and gas sector institutional arrangement individually, but since in reality they do not exist separately, it is important to also consider the joint effects on their respective institutional arrangement and the performance of oil and gas supply chains as a referent object. Following Saleth and Dinar’s advice on narrowing down the range of elements inside each component, the most relevant aspects of oil and gas supply chains’ law, policy, and administration will be identified from the relevant academic and policy literature. Each of these elements will be discussed in detail in the context of three case studies (Chapters 4-6).

Although IDA does not consider the distinction between institutions and organizations, its three institutional components embody the dichotomy. While laws are the farthest from organizations in their characteristics, administrative design

¹³⁸ Saleth and Dinar, *The institutional economics of water*, 91.

¹³⁹ Saleth and Dinar, *The institutional economics of water*, 100.

¹⁴⁰ *Ibid.*, 95.

resembles a group of organizational structures. Policies then play the role of a liaison transmitting information between the two.

Despite the fact that Saleth and Dinar (2004) explicitly state that IDA “focuses only on the formal... segments of water institutions,”¹⁴¹ organizations, which are a part of the institutional components in IDA, always have an informal side to them.¹⁴² Some researchers emphasize that organizations’ informal practices, rather than formal procedures, better reflect their behavior. Others, including Saleth and Dinar, see informal institutions as major sources of path dependence due to the more enduring nature of informal versus formal institutions.¹⁴³ Thus, ‘informal’ components of organizations (and institutions) have to be analyzed alongside formal practices in three institutional components.

Overall, IDA is considered an effective analysis tool. It links the institutional arrangement with (a) the institutional environment it is set within, (b) the relevant policy arena, and (c) the referent object which shares the same institutional environment with the policy arena. In doing so, IDA helps capture the essence of the referent object’s performance, and disentangle the combined effect of its legal, policy and administrative components on securitization.

2.8.3.3 Referent Object: Oil & Gas Supply Chains

The referent object can be seen as an object of policy actors’ manipulations, as a part of the policy process, and as a source of various policy goods. The essence of policy goods cannot be fully captured by supply-demand characteristics, as they have additional qualities such as equity. While strategic management insights are useful for deciphering the economic side (supply – demand) of the referent object’s goods, institutional analysis demonstrates the link between different types of goods produced

¹⁴¹ Ibid., 71.

¹⁴² Scott, *Institutions and Organizations*, 185.

¹⁴³ North, *Institutions, Institutional Change and Economic Performance*. Saleth and Dinar, *The institutional economics of water*.

by the referent object and relevant institutions, and provides evidence that this link is bi-directional. The institutional arrangement can change the performance of the referent object, and its modified performance might make institutional arrangement no longer suitable. Thus, the referent object is a dynamic system capable of internalizing institutional change and providing feedback.

According to securitization theory, the energy sector is not one of the identified sectors in which the process of securitization can take place. The variety of sub-fields energy sector consists of and fields it overlaps with would make the study of energy securitization as a whole unfeasible. In securitization theory, the object of study is specified through identification of a referent object which can be a part of or represent a system. Energy is “a set of interlinked systems each consisting of elements connected to each other and to the outside world.”¹⁴⁴ The system is “critical for the functioning and stability of a society,” and relationships between the elements inside the system – “resources, materials, infrastructure, technologies, markets and other elements” – are stronger than with similar elements outside the system.¹⁴⁵ The strength of the relationship between the elements inside the system is explained by low substitution rate of these elements by the ones originating outside the system. Energy systems are abundant and some of the examples include oil supply chains, gas supply chains, coal supply chains, national electricity grids and power plants, national transportation systems, residential/commercial/industrial sectors, and energy exports. For the purposes of making the object of this study clear and manageable, and the goal of exploring securitization processes attainable, only two of the many existing energy systems will be analyzed: oil and gas supply chains.

¹⁴⁴ Aleh Cherp and Jessica Jewell, “Energy Security Assessment Framework and Three Case-Studies,” in *International Handbook of Energy Security*, eds., Maria Julia Trombetta and Hugh Dyer (Cheltenham, UK: Edward Elgar Publishing, 2013), 149.

¹⁴⁵ *Ibid.*, 151. Aleh Cherp et al., “Energy and Security,” in *Global Energy Assessment – Toward a Sustainable Future*, eds., GEA Team (Cambridge: Cambridge University Press, 2012), 325-383.

Correctly stated by Dubash and Florini (2011) and supported by many writings on the topic, “the debate over [international] energy security remains a debate about access to oil (and increasingly natural gas).”¹⁴⁶ The 1973 oil crisis is considered to be the major event that brought energy security on the policy agenda of many states. Security of oil supplies has emerged as an energy security issue because oil is one of the most widely used energy resources in the world. Many economies are heavily dependent on access to oil with their industrial (mostly petrochemical) and transportation sectors being major consumers of the resource.

As of 2016, natural gas consumption is the fastest growing among fossil fuels and is expected to overcome coal as the second most widely consumed fuel in the world, following oil, by 2040.¹⁴⁷ But if the share of coal is expected to decrease by 2035 and beyond, the share of natural gas is projected to increase. Moreover, its application is much wider than that of oil as it is consumed by the industrial, residential, commercial, and electric power sectors.

With unconventional oil and gas resources being currently developed around the world, these two fuels will remain the primary energy resources for decades to come. In 2015, oil and natural gas had a combined share of 56.4% of energy resources consumed in the world.¹⁴⁸ According to different sources, this number is estimated to be anywhere between 54% and 60% by 2040.¹⁴⁹ In real numbers, this share implies significant growth in production and consumption of oil and especially natural gas as the world energy consumption is estimated to increase 48% by 2040.¹⁵⁰

Although oil is believed to have reached its peak consumption point in the OECD countries, the developing countries of the Asia-Pacific region represent a huge pool

¹⁴⁶ Navroz K. Dubash and Ann Florini, "Mapping Global Energy Governance," *Global Policy* 2 (2011), 8.

¹⁴⁷ U.S. Energy Information Administration, *International Energy Outlook 2016*, DOE/EIA-0484, May 2016, 1.

¹⁴⁸ BP, "Outlook to 2035," BP Energy Outlook: 2016 Edition, 2016.

¹⁴⁹ U.S. Energy Information Administration, *International Energy Outlook 2016*; BP, "Outlook to 2035"; ExxonMobil, "The Outlook for Energy: A View to 2040," 2016.

¹⁵⁰ U.S. Energy Information Administration, *International Energy Outlook 2016*.

of consumers, which will be sustaining oil demand in the next decades. Natural gas consumption is set to grow as the combination of technological progress and national regulatory policies unlock the shale gas potential around the world. Natural gas is also the cleanest fossil fuel essential for further development of renewable energy resources.

Oil and gas supply chains constitute systems with relatively well-defined borders, institutional arrangements, and interaction patterns between actors in the system. These qualities contribute to the organization and rigor of the research. Thus, the object of this study is narrowed down from the obscure concept of energy securitization to securitization of oil and gas supply chains.

Although oil and gas supply chains are systems with relatively well defined borders and other characteristics, they have to be narrowed down further for this study to make use of the theoretical framework and be able to systematically analyze these supply chains. In a typical oil and gas supply chain, the number of industry actors increases as products travel down the supply chain, from upstream to midstream to downstream. Out of the three segments, downstream has the widest variety of products and actors. At the same time, it is the least directly affected by international factors. The downstream segment receives much less attention than up- and midstream segments as the subject of energy security studies even though it is not immune from threats and securitization. If in downstream the majority of problems encountered by oil refiners and O&G distributors are related to physical security (i.e., industrial facilities, infrastructure, and transport), exploration and production in the upstream and transportation in the midstream segments are exposed to more domestic and international factors contributing to physical and non-physical insecurity of oil and gas supply chains. Hence, with the goal of keeping the object of this study focused, only upstream and midstream segments of oil and gas supply chains are explored in detail within the securitization framework.

2.8.3.4 Summary

Type III inputs result from the interaction between the institutional arrangement and the performance of the referent object. They also serve as a link between the policy arena, the institutional ecosystem, and the corresponding referent object. Zooming in on a specific set of institutions allows for the contextualization of securitization process. Case study analysis reveals sector-specific details and ensures that the theoretical relations between multiple elements of the constructed framework are not detached from reality. IDA framework serves as the basis for disaggregating the two components of type III inputs. The institutional arrangement consists of the legal, policy and administrative components. The focus on the O&G supply chains as the referent object of this study is explained, while the elements of the referent object's performance will be reviewed in the next chapter.

2.9 Conclusion

This chapter established the link between energy security and energy securitization, outlined the research question of this study, and analyzed existing body of work on the topic of energy securitization. It then explored the theoretical foundation of securitization in the international relations literature and identified its weaknesses. In order to enhance understanding of securitization provided by the field of international relations, three other strands of literature were introduced, namely public policy, institutional analysis, and strategic management. They represented the pillars of the multidisciplinary approach of this study, and helped reinterpret securitization as a policy process shaped by three types of inputs.

Type I inputs embody the institutional ecosystem and trends originating from it. Type II inputs include vital components of a policy arena, including policy actors and their

resources, objectives and beliefs, as well as triggers of policy change. Type III inputs link the elements of the institutional arrangement and the referent object's performance.

Overall, the process of construction of security issues is more complex than presented by the original securitization theory. The examination of a handful of analytical concepts from strategic management, public policy and institutional analysis demonstrates the potential value of incorporating these three perspectives into the study of securitization. It allows for a more precise definition of the core concepts as well as for establishing strong links between the main components of securitization theory, the policy context and the institutional ecosystem.

The next chapter will integrate elements originating from the literature review and structured as three types of inputs into the theoretical framework. The research methodology and more specific guiding questions derived from the central research question and the theoretical framework will be discussed as well.

Chapter 3: Theoretical Framework and Methodology

3.1 Introduction

With the objectives and the central research question in mind, the proposed roadmap for this study involves conceptualizing securitization as a policy process, constructing a theoretical framework that would reflect the peculiarities of this process in relation to a specific referent object, and applying the framework to the analysis of securitization processes in three country-level case studies. The previous chapter set the stage for envisioning securitization as a policy process. To recap, it took Buzan et al.'s securitization theory as the basis for organizing the current state of knowledge on securitization, identified its weak spots and inconsistencies, and justified incorporation of new perspectives on securitization processes under a single umbrella of a broad theoretical framework.

As a logical continuation of the previous chapter, Chapter 3 introduces the theoretical framework as a tool for structured, yet flexible, analysis and ties it with the research question and the methodology. **Section 3.2** lays out the theoretical framework. After that, **Section 3.3** briefly reviews five previously analyzed limitations of the original securitization theory to make sure the framework addresses them appropriately. **Section 3.4** revisits the central research question and details a number of more specific elements that are linked to the developed theoretical framework. **Section 3.5** focuses on the methodology explaining how constructed theoretical framework will be subjected to empirical tests in the upcoming chapters, and presents three case studies, which will be the sources of empirical context. **Section 3.6** serves as conclusion and summarizes the key points on the framework and methodology. Depending on the goals and scope of analysis, one can use a whole framework, pick any of its components or focus on questions within a specific component, and yet be able to adhere to organization.

3.2 Theoretical Framework: Securitization as a Policy Process

This section draws on the discussion of three types of inputs put forward in Chapter 2. All three types of inputs are new to the original securitization theory, and the previous chapter serves as a platform for synthesizing the discussed insights from the disciplines of public policy, institutional analysis and strategic management. If Chapter 2 detailed the origins of the inputs, provided justification for their incorporation into the theoretical framework, and explored their elements, this section applies these inputs to the framework in a systematic manner illustrating logical connections and interdependencies between the inputs and their distinct multidisciplinary components.

Three types of inputs comprise factors originating from the institutional ecosystem (type I), the policy arena (type II), and institutional – referent object link (type III). In simple terms, they represent the three levels of analysis encapsulated in the theoretical framework, where type I inputs correspond to the macro-level, type II inputs – to the micro-level, and type III inputs – to the meso-level.

3.2.1 Type I Inputs: Institutional Ecosystem

This section synthesizes a number of insights from different approaches to institutional analysis, including definitions and classifications of institutions, identified in the previous chapter and integrates them into the framework.

3.2.1.1 Hierarchical (Vertical) Linkages

Schematically, the institutional ecosystem can be depicted as a constellation of hierarchically nested, yet interdependent, layers. Each institutional layer represents a group of institutions, and three layers can be distinguished: embedded institutions, institutional environment, and institutional arrangements.

Embedded institutions are the foundation of any ecosystem, and embody a collection of sturdy interdependent pillars like culture, traditions, religion, and social norms.

The *institutional environment* represents the next institutional level. It consists of structures not as extensive as embedded institutions, but substantial enough to endure sizeable shocks and ignore strong trends. The structures include the judiciary and the political, social and macroeconomic systems. Moreover, the institutional environment is not only the basis for the next institutional layer, but also a place of aggregation and diffusion of six powerful *trends* originating from the same and other environments: demographic, sociocultural, political/legal, technological, economic and global.

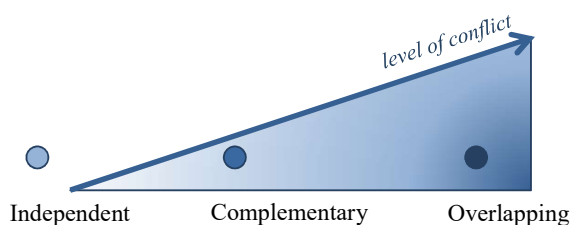
The *institutional arrangement* is the configuration of narrower, issue- or sector-specific institutions within the institutional environment. While policy actors within their respective policy arenas decide upon institutional arrangement, the institutional environment largely determines the range of their choices. The institutional arrangement is the main channel of communication between policy actors and referent object. Hence, its analysis serves as a magnifying glass for revealing the intricacies of the referent object performance (See Section 3.2.3 “Type III Inputs: Institution – Referent Object Link” below).

3.2.1.2 Horizontal Linkages

With regards to their relative positions in a particular layer, institutions can belong to one of the three categories: independent, overlapping, or complementary. *Independent* institutions, which are more likely to show a higher degree of autonomy and self-sufficiency, should be expected at the upper levels of institutional ecosystem because this is where institutional boundaries become the most pronounced and functions the most specific. However, this is not always the case in today’s reality, where institutions face complex problems, and fight or cooperate to obtain more resources and, as a result, a larger sphere of influence.

Thus, once independent institutions can evolve into complementary or overlapping. *Complementary* institutions serve as an adhesive device between same-level institutions as they work towards the same broad objective. *Overlapping* institutions do not necessarily share the same objective, but they do have at least partly similar scope. Consequently, instead of working together, overlapping institutions are likely to clash repeatedly (See Figure 3.1).

Figure 3.1: Type of Institutions and Likelihood of Inter-institutional Conflict



3.2.1.3 Institutional Ecosystem – Policy Arena Link

In the national context, numerous policy arenas are set within the top institutional layer pertaining to governance of various referent objects. One or more policy arenas can be linked to the same institutional arrangement, and they have strong connections with each nested institutional level below. The deepest level of institutions – embedded institutions – forms the deepest level of policy actors’ beliefs. Actors’ resources are assigned and redistributed, multiplied and diminished within the context of the policy arena, but in their majority stem from the institutional environment and peculiarities of institutional arrangement. Institutional arrangement is a bridge between the actors’ objectives, institutional environment, and the referent object.

Even though the scale and scope of a policy arena is small compared with those of the institutional levels, policy arena does have an influence on stability and change in the institutional ecosystem. Provided embedded institutions and the institutional environment form the foundation of the entire ecosystem and are its most deeply

rooted layers, they are least affected by the perturbations originating from the remote policy arena. However, minimal impulses hardly felt by the deepest institutional levels could potentially result into more serious effects, if sent repeatedly or aided by the events in the upper layer of institutional arrangement.

3.2.2 Type II Inputs: Policy Arena

Building on the insights from Chapter 2, which analyzed the origins of Type I inputs, including the questions of what policy arena is and what characteristics policy actors have, this section examines (1) constant and variable attributes of policy actors, (2) the difference between securitizing actors and policy stakeholders, (3) types of securitizing actors, (4) the differences between homogenous and heterogeneous composition of the policy arena, and, finally, (5) the nature and the role of triggers in the securitization process.

3.2.2.1 Policy Actors' Attributes

Constant attributes are the basic assumptions about the human nature of policy actors, whereas *variable attributes* include actors' objectives, beliefs and resources (See Table 3.1).

Table 3.1: Attributes of Policy Actors

Object	Attribute	
	<i>Constant</i>	<i>Variable</i>
Policy Actor	<ul style="list-style-type: none"> ▪ is boundedly rational ▪ has limited abilities to process stimuli ▪ remembers losses more than gains ▪ has explicit/implicit self-interest ▪ has a limited attention span ▪ is governed by emotion 	<ul style="list-style-type: none"> ▪ <u>beliefs</u> <ul style="list-style-type: none"> ❖ secondary ❖ policy core ❖ deep core ▪ <u>objectives</u> <ul style="list-style-type: none"> ❖ content-related ❖ process-related ▪ <u>resources</u> <ul style="list-style-type: none"> ❖ tangible ❖ intangible ❖ organizational

All policy actors share the same constant attributes. Hence, it is the configuration of variable attributes – beliefs, objectives, and resources – along with external factors that determine the roles of policy actors in the securitization process.

Beliefs are the most elusive attributes of policy actors. They are difficult to capture and measure, but are essential in understanding policy actors' objectives as well as the policy arena and the institutional ecosystem they are rooted in. Classification of beliefs is borrowed from Advocacy Coalition Framework (ACF) as it represents the most advanced taxonomy of this attribute supported and echoed by many others in policy analysis.¹⁵¹

Policy actors' objectives can be either content- or process-related, and distinction between the two is explained in detail in Chapter 2. Actors define problems in terms of their own objectives. A problem is a perceived gap between an actor's objective and a current situation. Depending on the size of the gap, problems range from 'issues' and 'risks' to 'threats'. While issues are the lowest on the policy actors' agenda, threats are the highest and are prioritized over risks.

A threat is any policy problem that can be portrayed by a securitizing actor as negatively and immediately affecting the performance of a referent object, yet not possible (in the opinion of a securitizing actor) to eliminate. The inability to deal with the threat directly is a distinctive feature of securitization vs. non-securitization processes. When initiating securitization, policy actors portray it as a move towards 'securing' the referent object from the threat. However, despite the shared perspective on a threatened referent object, they are likely to have diverging objectives and might not agree on the exact path towards securing the referent object. As a result, the referent object may be kept on top of the policy agenda and be securitized, but remain in perpetual state of insecurity.

¹⁵¹ See Chapter 2, Section 2.8.2.1 (Advocacy Coalition Framework) and Section 2.8.2.2 (Beliefs).

With regards to the theoretical framework of this study, it is thus important to note that the internal characteristics of the problem do not matter as much as the policy actors' *perceptions* of the policy problem's characteristics. Independent of the objective existence of a threat, the securitization process can be initiated if there is a shared perception between policy actors that the referent object is threatened. A threat would be perceived as a problem serious enough to be capable of disrupting the regular performance of a referent object.

Resources have to be a part of the analysis of securitization processes because they play an important role in shaping actors' behavior. Resources are the assets at policy actors' disposal that allow them to function effectively. As public policy and strategic management sources demonstrated in the previous chapter, countless classifications of resources exist. Based on the review of multiple categorizations of resources, the following classification of resources is suggested (See Table 3.2). It combines perspectives of two disciplines and captures the variety of tangible, intangible and organizational resources.

Table 3.2: Classification of Policy Arena Resources

Tangible	Intangible	Organizational
<ul style="list-style-type: none"> ❖ Financial ❖ Physical ❖ Technological ❖ Legal 	<ul style="list-style-type: none"> ❖ Human ❖ Information ❖ Innovation and creativity ❖ Reputation ❖ Authority 	<ul style="list-style-type: none"> ❖ Competencies and skills ❖ Capacity to combine tangible and intangible resources

Sources: Dess et al., *Strategic Management*; Hood, *The Tools of Government*; Sabatier and Weible, "The Advocacy Coalition Framework: Innovations and Clarifications;" Dente, *Understanding Policy Decisions*.

3.2.2.2 Securitizing Actor vs. Policy Stakeholder

The major distinction between numerous actors inside the policy arena is based on their role in the securitization process. According to this criterion, two types of policy actors can be distinguished: a securitizing actor and a policy stakeholder. The driver

of the securitization, who generally¹⁵² has to be present for the process to start, may be a single policy actor or a collection of thereof. Such driver assumes the role of a *securitizing actor*. Once the driver is identified, other policy actors within the same policy arena are labeled *policy stakeholders*. The latter are less active, but, nevertheless, their *reaction* to securitizing actor's actions can play a detrimental role in the process. Moreover, while securitizing actors are the initiators and propagators of the securitization process, the features of the policy arena they are a part of matter as well. These features include characteristics of both policy arena (homogeneity vs. heterogeneity) and policy stakeholders (their beliefs, objectives, and resources).

3.2.2.3 *Securitizing Actors Typology*

Possessing various beliefs, aiming to achieve a multitude of objectives and endowed with different resources, securitizing actors do not follow a single behavioral blueprint. Depending on their functions, securitizing actors can belong to one of three types distinguished in this study. The function-based typology of securitization actors is partially derived from the ACF, MSM and PET frameworks examined in Chapter 2. These frameworks are centered on dynamic interactions between various policy actors. Although their interpretations of policy processes differ and there is no association between the types of policy actors they identify, this study treats the types of policy actors described by the ACF, MSM and PET as a range of behavioral models available to a securitizing actor. While the terms 'policy entrepreneur', 'policy broker', and 'coalition' are borrowed from the ACF and MSM frameworks, the meaning attached to them is modified to fit the goals of this study and theoretical framework. Overall, the suggested typology encapsulates the major routes a securitizing actor might choose to take.

¹⁵² Three types of securitizing actors will be discussed below (See Section 3.2.2.3). However, there are cases when securitization process takes off without an explicit action on the part of securitizing actor. This occurs when other factors, namely external and internal triggers of the securitization are at play. These triggers are also discussed below (See Section 3.2.2.5)

Hence, depending on the structural characteristics of the policy arena and institutional background, the securitizing actor can perform one of the following functions:

- (1) *policy broker* would mobilize the resources at hand, and manipulate the policy arena and/or external factor(s) to create a shared perception of threat; or
- (2) *policy entrepreneur* would take advantage of an already existing consensus on a threat among policy actors; or
- (3) *dominant decision-maker (coalition)* would be unconcerned with the other stakeholders' reaction to his (their) actions because their approval or discontent do not matter.

In the situation of a generally accepted threat, policy actors align their objectives, thus, creating a stimulus for cooperation. They are willing to compromise their beliefs and share resources in order to achieve the goal. A policy entrepreneur identifies these conditions as a policy window – an opportunity to couple policy, politics and problem streams and push policy actors towards the securitization process.

The task of a policy broker is somewhat more complicated as it requires identifying a common goal between policy stakeholders as well as resolving the challenges of resource sharing and belief clashes. This type of securitizing actor is likely to originate from a policy arena where two or more coalitions – groups of policy actors – compete for influence.

The functions of a dominant decision-maker are very different from those of the other two types of securitizing actors. While policy entrepreneur and policy broker put a lot of effort into negotiation, the dominant decision-maker is preoccupied with the preservation of the status quo through control of policy arena resources, which ensures that no alternative beliefs and objectives emerge to challenge the dominant

ones. As a result, if any challenges to the dominant decision-maker arise, they are more likely to come from outside than from inside the policy arena.

3.2.2.4 Policy Arena Structure

The structure of the policy arena has a significant influence on the course of the securitization process and securitizing actor's behavior. There are two types of policy arena: *homogenous* and *heterogeneous*. A homogenous policy arena may either consist of policy actors with limited variability in resources, beliefs and objectives, or be dominated by one strong actor/coalition. In a heterogeneous policy arena, differences between policy actors' attributes are more apparent, and no single actor or group is dominant.

All external factors being equal, initiating a securitization process is a more complicated task for securitizing actors located in a *heterogeneous* policy arena than in a *homogenous* one. The presence of multiple competing advocacy coalitions and possibly networks within them, and stakeholders with vastly diverse beliefs and objectives, who are also likely to be in disagreement over the resources available in the policy arena, make the job of a securitizing actor harder. Heterogeneity keeps in check the power of potential dominant decision-makers present in the policy arena, but it is vulnerable to the rise of this type of securitizing actor from the broader institutional environment. Hence, overall, dominant decision-makers are more likely to originate from a homogenous policy arena, whereas policy entrepreneurs and policy brokers are pertinent to both types of policy arena.

3.2.2.5 Triggers of Securitization

A dominant decision-maker and a policy broker can originate only from within the policy arena or a broader institutional environment,¹⁵³ but a policy entrepreneur can also be an outsider infiltrating a policy arena in person or via a proxy. Emergence of an *outside policy entrepreneur* is one of the three **external factors** that make the distinction between homogenous and heterogeneous arenas less significant. The other two include *systemic perturbations* and *policy spillovers*. Systemic perturbations refer to external crises, which disrupt established workings inside the policy arena. The examples may include weather-related disasters, terrorist attacks, wars and elections. Policy spillovers occur when changes in one policy arena spread into another policy arena; they happen either when policy arenas intersect (issue-specific, often temporary changes), or converge (more long-term changes). External factors are equally capable of changing the behavior of policy actors in homogenous and heterogeneous policy arenas originally not predisposed to carrying out a securitization process. However, the presence of external factors has no effect on a policy arena unless the latter reacts to them.

Another set of three **internal factors** – originating from within the policy arena – can also aid a securitizing actor in initiating a securitization process. This set includes *venue changes*, *negotiated agreements*, and *policy learning*. Venue changes occur when policy actors pursuing their interests modify some strategies they are dissatisfied with. Negotiated agreements involve building a consensus between policy actors with opposing strategies and/or objectives. Learning from their own and other policy actors' experience constitutes policy learning. It may or may not be triggered by the external factors described above. Out of the three, policy learning is the least controlled by the securitizing actor. It is a process rather than an event, which includes many members of the policy arena. Venue change and negotiated

¹⁵³ not from another policy arena

agreements, on the other hand, are designed and implemented directly by the securitizing actor, although not without the participation of the policy stakeholders.

In addition to external and internal triggers of securitization, there is one more process that cannot be clearly defined as belonging to one category or the other. This process is *policy monopoly fragmentation* and is mostly relevant to homogenous policy arenas. It can take place via one or a combination of the following paths: layering, drift, conversion, and redesign. As a complex and lengthy development, it would have the strongest effect on aiding the initiation of the securitization process when policy monopoly fragmentation is at the later stages. Thus, the structure of the policy arena is fluid and can undergo significant changes over time.

3.2.2.6 Summary

In summary, the composition of a policy arena, relations between its components as well as their linkages to external factors have a significant role to play in the securitization process. They help explain the behavior of policy actors and define the functions of a securitizing actor and policy stakeholders (See Table 3.3). Nevertheless, it is only one part of the analysis because understanding the policy arena is not sufficient for drawing a complete picture of the securitization process. The other part is the examination of the institutional ecosystem in which policy arena is located and securitization process takes place. These conditions also affect behavior and performance of the policy arena structure, securitizing actors and policy stakeholders.

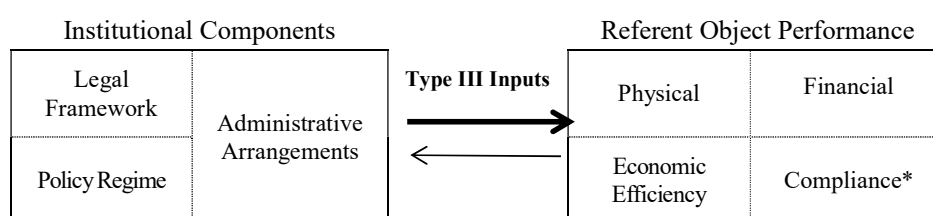
Table 3.3: Key Elements of the Policy Arena in the Securitization Process

OBJECT		FACTORS affecting object performance [on the level of policy arena]		
		INTERNAL	EXTERNAL	
Policy Actor	Policy stakeholders	<ul style="list-style-type: none"> 1. Constant <ul style="list-style-type: none"> ▪ is boundedly rational ▪ has limited abilities to process stimuli ▪ remembers losses more than gains ▪ has explicit/implicit self-interest ▪ has a limited attention span ▪ is governed by emotion 2. Variable <ul style="list-style-type: none"> ▪ <u>beliefs</u> <ul style="list-style-type: none"> ❖ secondary ❖ policy core ❖ deep core ▪ <u>objectives</u> <ul style="list-style-type: none"> ❖ content-related ❖ process-related ▪ <u>resources</u> <ul style="list-style-type: none"> ❖ tangible ❖ intangible ❖ organizational 	<ul style="list-style-type: none"> 1. Other policy actors' internal characteristics 2. Characteristics of the policy arena 	
	Securitizing actors			Policy entrepreneur
				Policy broker
	Dominant decision-maker			
Policy Arena	Heterogeneous	<ul style="list-style-type: none"> ▪ policy actors' internal characteristics ▪ relations between policy actors ▪ internal triggers of securitization <ul style="list-style-type: none"> ❖ venue changes ❖ negotiated agreements ❖ policy learning 	<ul style="list-style-type: none"> ▪ external triggers of securitization <ul style="list-style-type: none"> ❖ outside policy entrepreneur ❖ systemic perturbations ❖ policy spillovers 	
	Homogenous			<ul style="list-style-type: none"> ▪ policy monopoly fragmentation
Policy Problem	Issue	<p style="color: red;">Internal characteristics of the problem do not matter.</p>	<ul style="list-style-type: none"> 1. securitizing actor's <i>perceptions</i> of the policy problem's characteristics 2. securitizing actor's internal and external characteristics 	
	Risk			
	Threat			

3.2.3 Type III Inputs: Institutions – Referent Object Link

Type III inputs explain how a referent object fits into the securitization process by linking it to the corresponding institutional arrangement (See Figure 3.2). As discussed in Chapter 2, this section applies IDA to analyze the institution-referent object link. Although IDA structure is transferrable in principle, the elements of institutional components and the referent object are context-specific and have to be adjusted to fit oil and gas supply chains.

Figure 3.2: IDA Structure



Source: Adapted from Saleth and Dinar, *The Institutional Economics of Water*.

Notes: *In IDA, this box is titled 'equity'

As Figure 3.2 demonstrates, one of the components of the referent object performance, *equity*, has been replaced with *compliance*. Equity is essential to the water sector performance because water is a common-pool resource. Oil and gas supply chains, however, provide different types of goods and services, and, unlike in the water sector, equitable allocation of oil and gas resources (or products) is not among primary objectives pursued by the oil and gas sector. Therefore, focus on compliance, rather than equity, is more representative of oil and gas sector performance. Importance of compliance with regulations, taxes and trade rules among others is illustrative of the link between the referent object and corresponding institutions, which are responsible for constructing these rules and regulations.

Moreover, prior to filling in each box, it is important to note that Saleth and Dinar (2004) designed IDA to fit quantitative methodology. As a result of methodological

choice, referent object performance and institutional components are broken down into variables that are possible to codify and quantify. They take the form of dummy, categorical and scale variables.¹⁵⁴ Since this study does not use a quantitative method, and the goal is to capture the breadth and depth of a policy process as opposed to measuring it, the elements of each component are less precise. Some echo elements of original IDA in that they interpret factual information (e.g., supply/demand, profits, etc.); others are based on open-ended questions and leave room for qualitative assessment (e.g., social responsibility, public image, etc.). The advantages and limitations of qualitative approach are discussed in relation to the overall methodology of this study later in this chapter (See Section 3.5).

3.2.3.1 Oil & Gas Institutions Decomposed

Similar to oil and gas supply chains, institutions governing them are not uniform in structure. IDA treats an institution as an amalgamation of laws, policies, and administrative arrangements (See Table 3.4). The three components belong to the same institution because they govern the same referent object. There are no clear hierarchical links between these components; rather, they co-exist in a symbiotic relationship. For the purposes of consistency with the language of the theoretical framework, IDA's institutional components are referred to as the components of the institutional arrangement.

Once again, the purpose and the methodology of this study differ significantly from the ones pursued in Saleth and Dinar (2004)'s application of IDA. Hence, the framework of this study does not seek to reduce the scope of the institutional arrangement to quantifiable variables. Instead, IDA's perspective on institutions is used as an effective way of structuring the analysis. The elements of the three

¹⁵⁴ Saleth and Dinar, *The institutional economics of water*, 110.

institutional components are aimed at exploring the depth and breadth of the institutional arrangement governing oil and gas supply chains.

Table 3.4: Oil and Gas Institutions: Components and their Elements

Legal Framework	Policy Regime	Administrative Arrangements
<ul style="list-style-type: none"> ▪ O&G rights ▪ land use ▪ scope of private participation ▪ health, safety and environment ▪ conflict resolution ▪ regulatory regime ▪ O&G trading ▪ (foreign) investor rights ▪ accountability 	<ul style="list-style-type: none"> ▪ technology policy ▪ nationalization/privatization ▪ health/environment policies ▪ tax burden/incentives ▪ licensing regime ▪ trade agreements ▪ project selection ▪ cost recovery 	<ul style="list-style-type: none"> ▪ structure of regulatory authority(-ies) ▪ finance patterns ▪ pricing ▪ fee collection ▪ regulation/accountability ▪ information capability ▪ technical capacity

Source: Adapted from Saleth and Dinar, *The Institutional Economics of Water*, 102.

3.2.3.2 Referent Object Performance

Upstream and midstream segments of oil and gas supply chains are the referent object of this study, and Chapter 2 specified and provided reasons for only two of the three consecutive stages of the supply chains to be included in the analysis. But, as a center piece of securitization process, referent object requires a more nuanced understanding than the one suggested by conventional ‘upstream’ and ‘midstream’ definitions. A more complete description involves not only (1) defining the supply chain in terms of products and services it yields, but also (2) positioning it inside the securitization framework.

First, supply chains are not monolithic. Even in the case of vertically integrated companies, players representing different parts of the supply chain differ. Depending on their role in the supply chain, companies or their business units have distinct structure, resources, and goals (See Table 3.5). The analysis of supply chain

components helps one understand how each of them contributes to the referent object performance and the securitization process.

Table 3.5: Oil & Gas Supply Chains

Upstream		
OIL & GAS		
Exploration	Development	Production
Regional Evaluation Exploration Appraisal/Delineation	Field Construction	Production Profile Abandonment

Midstream		Downstream	
OIL			
Processing	Transportation	Refining	Distribution
Stabilization (degassing)	Oil pipelines	Separation into different petroleum cuts (CDU, VDU, Gas Plant)	<u>via</u> Pipelines
Dehydration (desalting)	Sea tankers	Quality improvement (Reforming, HDS, Amine)	Rail tankers
H ₂ S removal	Railways	Quantity improvement (FCC, DHC, Coker)	Inland barges
	Roads		Ships
			Trucks
GAS			
Treatment	Transportation		<u>to end customers</u> <u>for</u>
LPG extraction			Electricity generation
Amine Unit			Gasification
Claus Unit	NG pipelines		Fuel
Dehydration	LNG tankers		Petrochemical plants feed
Mercury absorption			
Liquefaction			

Source: Author

Notes: CDU – crude distillation unit, DHC – distillate hydrocracker,
 FCC – fluid catalytic cracking, HDS - hydrodesulfurization,
 H₂S – hydrogen sulfide, LNG – liquefied natural gas,
 LPG – liquefied petroleum gas, NG – natural gas,
 VDU – vacuum distillation unit.

Hence, a sense of overall performance of oil and gas supply chains can be gathered from the performance indicators of the players in the upstream and midstream sectors. A brief survey of industry analyses¹⁵⁵ as well as company-specific methodology and reports¹⁵⁶ on oil and gas sector performance demonstrates that companies' performance is judged against numerous criteria in several areas. These include physical assets (infrastructure, reserves replacement ratio, etc.), finances (capital investment, cash flow, shareholder return, etc.), human resources (overall employment, diversity, human development, injury frequency, etc.), environmental effects (greenhouse gas emissions, loss of primary containment, etc.), and compliance with government regulations (legal, fiscal, operational, etc.).

Second, a referent object, such as a supply chain, cannot be assessed purely on the basis of its components. It belongs to a policy process; it affects and is affected by the factors external to the supply chain. In the theoretical framework, such factors are depicted as type I, II, and III inputs. According to the definition of securitization constructed in Chapter 2, a securitizing actor attempts to influence the performance of a referent object. Hence, securitizing actor's objectives should be a part of a composite benchmark for assessing the performance of a referent object. This is where the link between the referent object and institutions comes into play. Since policy actors rarely have a *direct* say in how the entire oil and gas sector (as opposed to individual oil and gas players, i.e., NOCs) should behave, their demands on the

¹⁵⁵ Abdullah M. Al-Obaidan and Gerald W. Scully, "Efficiency differences between private and state-owned enterprises in the international petroleum industry," *Applied Economics* 24:2 (1992): 237-46. Nadejda Victor, "On Measuring the Performance of National Oil Companies (NOCs)," *Working Paper #64* (Program on Energy and Sustainable Development, Stanford University, 2007). Paul Stevens, "A Methodology for Assessing the Performance of National Oil Companies" (Washington, DC: The World Bank Group, 2008). Christian Wolf, "Does Ownership Matter? The Performance and Efficiency of State Oil vs. Private Oil (1987 – 2006)," *Energy Policy* 37, no. 7 (2009): 2642-52. Stacy L. Eller, Peter R. Hartley and Kenneth B. Medlock, "Empirical Evidence on the Operational Efficiency of National Oil Companies," *Empirical Economics* 40, no. 3 (2010): 623-43. Mark C. Thurber, David R. Hults, and Patrick R. P. Heller, "Exporting the "Norwegian Model": The Effect of Administrative Design on Oil Sector Performance," *Energy Policy* 39, no. 9 (2011): 5366-78.

¹⁵⁶ BP, "Our key performance indicators," BP Global, 2016. Shell. *Web Version of the Royal Dutch Shell plc Annual Report and Form 20-F 2014*. Shell Website. 2015. John McCreery, Ethan Phillips, and Francesco Cigala, "Operational Excellence: The Imperative for Oil and Gas Companies," Bain & Company, February 25, 2013. Riccardo Bertocco and John McCreery, "Operational Excellence: Managing Performance in the Oil and Gas Industry," Bain & Company, May 28, 2014.

sector are channeled through appropriate institutions. They are restrained or empowered by type I inputs from the institutional ecosystem, mixed in with type II inputs from the policy arena, and finally (fail to) reach the referent object as part of type III inputs.

Taking into consideration IDA insights adapted to the oil and gas sector as well as the purpose of this study, four groups of performance indicators are formed: physical, financial, economic efficiency, and compliance (See Table 3.6). Two sets of indicators from surveyed sources – environmental effects and human resources – are given less attention in this study for the following reasons. Performance with regards to the environment is reflected in the *compliance* group of indicators. Human resources performance is related to company-specific values and strategies in terms of human capital development, which is not relevant to the process of securitization.

Four groups of performance indicators will be used to analyze behavior of players in country-specific settings to assess the overall oil and gas supply chains performance in three case studies. *Physical performance* incorporates tangible assets that companies own, the gap between supply and demand in products and services offered by the supply chains, the condition of oil and gas infrastructure, efficiency of conflict resolution within the supply chain, and corporate structure within companies. *Financial indicators* are the ones revealing monetary and fiscal health of the players in the sector, including available capital, indebtedness, profits and others. *Economic efficiency* is reflected through oil and gas prices, and the ability of companies to maintain operational costs within the budget. Finally, *compliance* sets oil and gas sector within an institutional landscape, and unveils its (in-) ability to cope with numerous rules and regulations.

Table 3.6: Referent Object Performance Indicators

Physical	Financial
assets demand-supply gap state of infrastructure reserves replacement smoothness of supply chain operations corporate structure	capital investment (sources, inflow) expenditure vs cost recovery growth rate (earnings, debt, etc.)
Economic Efficiency	Compliance
price purchasing and procurement (suppliers, service providers)	corporate relations (contractual obligations, trading) regulatory compliance tax compliance costs

Source: Headers adapted from Saleth and Dinar, *The Institutional Economics of Water* with the exception of “Compliance.” Other cell content is based on the author’s research.

3.2.3.3 Summary

Type III inputs are indispensable to the theoretical framework that attempts to explain the process of securitization. It links otherwise disjointed and convoluted relations between the oil and gas sector and structures and processes that govern them. Additionally, type III inputs are the binding element inside the framework, which brings together other types of inputs. On the one hand, type I and type II inputs meet at the referent object-specific institutional arrangement feeding into the institutions’ performance and affecting type III inputs. On the other hand, type III inputs reveal the mechanisms through which type I and type II inputs are able to reach and influence the referent object.

3.2.4 Theoretical Framework Overview: Relevant Concepts and Visual Representation

Figure 3.3 below visualizes the theoretical framework. Although this study uses the original Buzan et al. (1998)’s securitization theory as a foundation, securitization has been redefined as a policy process. Consequently, modifications and clarifications

should be made to some other essential concepts of securitization process. For the purposes of this study,

securitization is a policy process shaped by the interdependent Type I, Type II and Type III inputs, where a securitizing actor attempts to alter the performance of a referent object, which it perceives as threatened;

politicization is defined differently from securitization theory; no policy processes are free of politics, but the politicization of a referent object is considered a part of securitization. In other words, a politicized referent object is either in the process of securitization or has already been securitized;

institutional ecosystem is a constellation of hierarchically nested (embedded institutions, institutional environment, and institutional arrangements) and horizontally interlinked (within each hierarchical level) collections of objects and is the source of Type I inputs in the securitization framework;

policy arena is the context where policy actors responsible for the governance of a certain referent object co-exist and is the source of Type II inputs in the securitization framework; depending on the characteristics of policy actors and institutional ecosystem, this context can be defined as homogenous or heterogeneous;

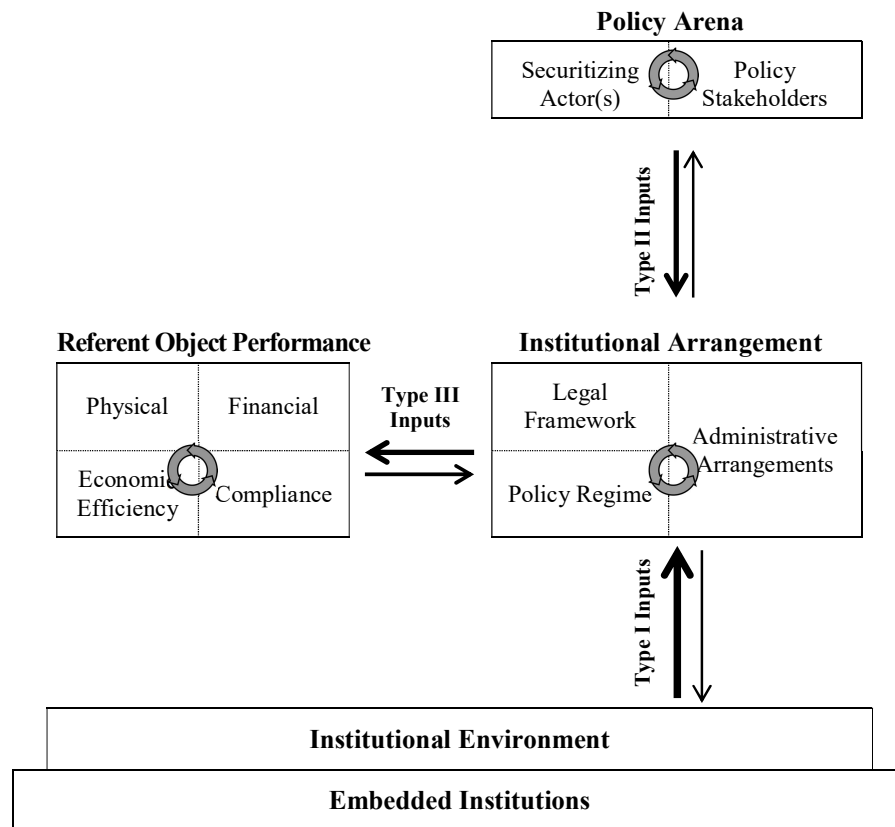
institutional arrangement is a narrow in scope institution in the institutional ecosystem designed to govern a specific referent object; it consists of three elements – legal framework, policy framework, and administrative arrangement, and is the source of Type III inputs in the securitization framework;

securitizing actor is a policy actor who has, or is able to obtain and use, securitizing power; depending on the structure of the policy arena and external forces at play, a securitizing actor can play a role of (a) policy broker, (b) policy entrepreneur, or

(c) dominant decision-maker;

<i>securitizing power</i>	is the securitizing actor's ability to drive the securitization process based primarily on the actor's variable (objectives, resources, and beliefs) as well as constant attributes;
<i>securitizing move</i>	is not constrained by the discourse analysis definition of it as a speech act; instead, it is a policy instrument employed by a securitizing actor in order to achieve securitization objectives in relation to a certain referent object; it is (in-) directly expressed through type I inputs;
<i>referent object</i>	is a system (oil and gas supply chains), perceived threatened by the securitizing actor who then attempts to secure it by altering its performance;
<i>audience</i>	are policy stakeholders, who are less active than a securitizing actor, but whose reaction to the securitizing actor's actions can play a detrimental role in advancing/blocking the securitization process.

Figure 3.3: Theoretical Framework: The Securitization Process



Source: Author

3.3 Does the Framework Address Limitations of the Original Securitization Theory?

The previous chapter identified five significant limitations of the original securitization theory. The constructed framework is designed to address the limitations. The major sources of the theory's criticism included its (1) Eurocentric character and treatment of normal politics, (2) definition of the securitizing move and the moment of securitization, (3) the origin of securitizing actors, (4) definition and role of the audience, and (5) the context of securitization.¹⁵⁷

First, the current analysis treats securitization as a policy process and makes the issue of Eurocentricity, and political system in general, irrelevant. Normal politics no longer lies within the confines of a liberal democracy where normal refers to negotiation and consultation between the policy actors. Instead, it is the institutional context and characteristics of the policy arena that determine what is normal and what is out of the ordinary. For instance, normal politics within a homogenous policy arena with a dominant decision-maker might not require consensus-building measures. Thus, the securitization framework is applicable to any political system.

Second, the securitizing move and the moment of securitization are redefined to address the criticism. Faulted for their narrow scope, in their original interpretation both concepts do not translate well into actions and events in practice. Rather than defining securitizing move as a speech act proclaiming the act of securitization, this theoretical framework treats it as an initial step undertaken by the securitizing actor. This step is context-specific and differs depending on the policy arena and institutional conditions, which shape the role of securitizing actor as a policy entrepreneur, a policy broker or a dominant decision-maker. Hence, the securitizing move is dependent on the securitizing actor's role. A policy broker would create a shared perception of threat among policy stakeholders. A policy entrepreneur could potentially employ a variety of policy tools to initiate securitization. A dominant

¹⁵⁷ See Chapter 2 for the detailed discussion.

decision-maker might not need a bold securitizing move at all in order to pursue securitization objectives. Although they are not always easily observable, securitizing moves are evident in changes implemented in the institutional arrangement governing the threatened referent object.

Similarly, the moment of securitization is *not* the moment the referent object becomes securitized. Instead, it can be referred to as a moment when the relevant conditions converge and set the securitization process in motion. The original definition of the moment of securitization no longer applies because, once again, securitization is treated as a process and not an isolated event.

With regards to the third and fourth points of criticism, the developed theoretical framework provides a thorough assessment of the nature and roles of securitizing actors and the audience. Although the label of ‘securitizing actor’ is preserved, the audience is referred to as policy stakeholders, because the new concept better illustrates the relationship between the actors within a policy arena and avoids confusion between policy stakeholders (the audience in Buzan et al.’s securitization theory) and the general public (the common understanding of the audience).

The fifth and final point on the absence of context is the overarching theme of the many critical assessments of the securitization theory. The theoretical framework of this study eradicates this point of criticism, because it is constructed on the premise of providing a detailed answer to how securitization process unfolds. While the original theory does not touch on the broader context securitization emerges from, this theoretical framework shows that securitization is deeply rooted within an institutional ecosystem.

Due to the fundamental problems addressed above, some assumptions about the process of securitization need to be revisited and checked for inconsistencies as well. To begin with, according to Buzan et al., the three indispensable components of

securitization are the securitizing actor, the securitizing move and the audience's (policy stakeholders') consent. On the basis of the developed theoretical framework, this study argues that out of these three components only the emergence of a securitizing actor is a necessary condition. A bold securitizing move and policy stakeholders' agreement with the actions of the securitizing actor may or may not be required.

Moreover, the detailed analysis of the policy and institutional structure surrounding the process of securitization demonstrates that the focus of the original securitization theory on the construction of a shared meaning of a threat is erroneous. A threat is secondary to the actors' objectives, as it is an interpretation of the latter. Thus, it is more important that policy actors agree that a threat exists and if multiple objectives exist, that they are related to the same referent object. At the same time, the actual meaning of a threat does not matter, but the shared understanding of the scale of a problem that makes it a threat does. In other words, securitization can take place if parallel goals linked to the same referent object exist *and* there is an equally substantial gap between currently unacceptable situation and the actors' respective goals.

Furthermore, contrary to the view expressed in Buzan et al.'s securitization theory, this study argues that as a *process*, securitization cannot be measured in binary terms, either success (yes) or failure (no). Rather, it is a continuum, where the value, or the degree, of securitization at any given moment ranges from the weakest to the strongest in relation to the referent object. It is also dependent on the referent object's previous experience with securitization. This study does not aim at calculating the degree of securitization of a referent object, as changes in different components of institution do not carry an equal weight. For instance, modifications in the administrative arrangements are generally the easiest to come about, while legal and policy transformations are much harder to achieve. Although this is usually the case,

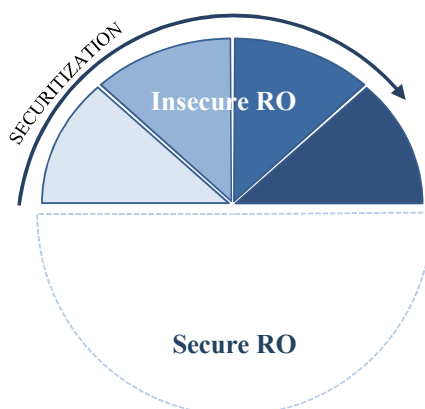
reverse examples do exist as well. Thus, these peculiarities are context-specific and have to be dealt with on a case-by-case basis.

Based on the observations of institutional behavior, there is an inverse correlation between the institutional depth of securitization and the duration of securitization process on the one hand and the likelihood of its reversal on the other hand. The more deeply rooted securitization is (institutional environment vs. institutional arrangement) and the longer it persists, the less likely the process is to be reversed. This is due to the fact that institutions are path-dependent, and institutions that are more mature and located closer to the institutional ecosystem's foundation are less open to radical change. If a securitization-related law, policy or administrative detail is implemented, the more time passes from the moment of implementation, the less likely it is to be removed at the later stages. Hence, institutional qualities make securitization a sticky process.

While the process of securitization cannot be interpreted in success and failure terms, the *outcome* of this process can be. Similar to the institutional environment, securitization has to be analyzed within a pre-selected spatial and temporal scope. Hence, the outcome of securitization is a subjective concept defined as a state of the referent object at the end of the analyzed time period. Failure occurs when the referent object is perceived as insecure, which is anywhere within the extreme ends of securitization. Success is achieved when the referent object is perceived as secure, which happens beyond the extreme ends of securitization. Unlike insecurity, which is interpreted through degrees of securitization, security has no gradation (See Figure 3.4). Security of the referent object can be attained as a result of (a) the referent object losing its relevance in the eyes of the securitizing actor, or (b) the policy actors meeting their goals and, thus, thinking that they have addressed the perceived threat. It is possible to tell whether or not a particular goal is met by comparing that goal

with the relevant aspects of the referent object's performance at the moment in time in which the outcome is analyzed.

Figure 3.4: Securitization Process and the State of the Referent Object (RO)



Source: Author

Thus, the developed theoretical framework demonstrates that securitization is a policy process, which has two major features differentiating it from the other policy processes: securitizing actor(s), and a referent object recognized as vitally important by the policy actors who have a jurisdiction over it and perceived as threatened. During this process type I inputs produced by the institutional environment, type II inputs controlled by the securitizing actor and influenced by policy stakeholders, and type III inputs created by the components of a relevant (to the referent object) institutional arrangement enter into a dynamic interaction to modify the performance of a referent object to meet the objectives of policy actors.

3.4 Research Question Detailed

In order to create a complete picture of *how oil and gas supply chains are securitized*, this study breaks down the central research question into more specific elements illustrative of relationships established in the theoretical framework within and

between the three types of inputs. Shaped as questions, they are grouped according to the types of inputs they are related to: institutional ecosystem (type I), policy arena (type II), and institution – referent object link (type III). Guided by the theoretical framework, the analysis of oil and gas supply chains' securitization in three national contexts (Chapters 4 -6) is performed with these questions in mind.

3.4.1 Elements Related to Type I Inputs

- Q1.1: Do quantifiable and easily observable trends affect the process of securitization more than qualitative and barely visible trends?
- Q1.2: What are the indicators of securitization originating from the institutional environment as opposed to the institutional arrangement?

3.4.2 Elements Related to Type II Inputs

- Q2.1: Can the securitization process move forward if policy actors perceive the referent object as threatened, but do not share a common definition of threat?
- Q2.2: Do external triggers of securitization incentivize competing policy actors in a heterogeneous policy arena to compromise their conflicting beliefs and share their resources?
- Q2.3: Do policy stakeholders have any influence on pausing/reversing/advancing a securitization process led by a dominant decision-maker?
- Q2.4: Do securitizing actors always try to build a policy core belief consensus among policy stakeholders and under what conditions?

3.4.3 Elements Related to Type III Inputs

Q3.1: Does securitization involve changes in all three components of the institutional arrangement (legal and policy frameworks, and administrative arrangements) relevant to the referent object?

Q3.2: Do independent, complementary and overlapping institutions have a different impact on the securitization of a referent object?

3.5 Methodology

3.5.1 Multiple Case Study Analysis

The method employed is a multiple case study analysis utilizing exploratory “building block” cases in structured, focused comparison. This methodology differs significantly from the way securitization theory prescribes to study securitization, but it is consistent with the combined deductive – inductive logic of this study, fits its objectives, and allows for proper investigation of the central research question.

Unlike the research process of traditional securitization analysis that is rooted in constructivist approach, this study originates from the perspective of logical positivism. Undoubtedly, epistemological choices have a significant effect on both theoretical and methodological foundations of research. For example, discourse analysis is a widely used research tool in social sciences, but the field of applied linguistics is considered the laboratory for its advancement. In international relations theory, discourse analysis is associated with the constructivist school of thought, which explores the “process” of formation of state identities and interests.¹⁵⁸ While treatment of discourse in applied linguistics belongs to the tradition of critical discourse analysis, international relations scholars lean towards the tradition of post-

¹⁵⁸ Alexander Wendt, “Anarchy is What States Make of It: The Social Construction of Power Politics,” *International Organization* 46, no.2 (1992), 391-425.

structuralism.¹⁵⁹ The difference between the two is that “for critical discourse analysis scholars, text analysis is always the (insufficient) starting point of one’s analysis that needs to be supplemented by broader sociopolitical... research.”¹⁶⁰ Hence, securitization theory with its narrow focus on a speech act is rooted in the post-structuralism tradition, while many of its critiques are based on critical discourse analysis arguing for widening the scope of the theory by assigning more weight to contextual sociopolitical factors.

As opposed to discourse analysis, this study relies on case study analysis as its core methodology. “Case study methods have wide applicability” in many epistemological traditions,¹⁶¹ and researchers in many social science fields “welcome the comparative advantages of case studies for addressing qualitative variables, individual actors, decision-making processes, historical and social contexts, and path dependencies.”¹⁶²

In line with its epistemological and theoretical orientation, this study pursues a combined deductive-inductive logic in formulating and exploring the central research question. The deductive component stems from the construction of the interdisciplinary theoretical framework aimed at filling the gaps in the original securitization theory via synthesis of insights from four disciplines. The inductive component is brought about by employing a case study method in order to apply the deductive theoretical framework, analyze suggested and potentially omitted influential variables, and trace complex causal processes at play.

The nature of both deductive and inductive components indicates that the study will benefit greatly from the qualitative research design. Some of the major acknowledged reasons for employing qualitative studies include “explor[ing]... little known... or

¹⁵⁹ Holger Stritzel, “Securitization, Power, Intertextuality: Discourse Theory and the Translations of Organized Crime,” *Security Dialogue* 43 (2012), 550-52.

¹⁶⁰ *Ibid.*, 552.

¹⁶¹ Alexander L. George and Andrew Bennett, *Case Studies and Theory Development in the Social Sciences*, 4th Ed (Cambridge, Mass: The MIT Press, 2005), 9.

¹⁶² George and Bennett, *Ibid.*, 9.

[not] adequately understood phenomena,” “approaching [them] from the perspective of a... non-observer,” generating hypotheses or research propositions based on in-depth data analysis, and focusing on discovering and analyzing as opposed to measuring variables and causal mechanisms.¹⁶³ Thus, qualitative research design best fits the purposes of this study as it corresponds with both its methodological and empirical objectives: advancing *systematic* understanding of securitization processes through structured analysis, and contributing *thorough* accounts of the policy-making processes with regards to a specified referent object – oil and gas supply chains.

As with any other research method there are certain trade-offs and limitations associated with the case study method. Such issues as parsimony vs. richness,¹⁶⁴ representativeness,¹⁶⁵ ability to estimate and measure things,¹⁶⁶ and questionable external validity can potentially undermine the value of the case study method. Nevertheless, attempts are made in the research design and in the process of case analysis to either eliminate or at least minimize these issues.

Moreover, advantages of using case studies for researching the process of securitization clearly outweigh potential limitations. Commonly cited benefits inherent in the case study method and applicable to this study include:

- ensuring high conceptual validity through “contextualized comparison” also known as “analytically equivalent phenomena” as well as construct validity;¹⁶⁷
- identifying new hypotheses, variables and causal mechanisms;¹⁶⁸ and

¹⁶³ Kathleen Eisenhardt, “Primer: Qualitative Research in Strategic Management: Theory Building from Multiple Cases,” *Strategic Management Journal* (September 2014), 4; Janice M. Morse and Carl Mitcham, “Exploring Qualitatively-derived Concepts: Inductive – Deductive Pitfalls,” *International Journal of Qualitative Methods* 1, no. 4 (2002), 33; George and Bennett, *Ibid.*, 78.

¹⁶⁴ George and Bennett, *Ibid.*, 85.

¹⁶⁵ *Ibid.*, 22.

¹⁶⁶ *Ibid.*, 22.

¹⁶⁷ *Ibid.*, 19; Winston M. Tellis, “Application of a Case Study Methodology,” *The Qualitative Report* 3, no. 3 (1997); David Collier, “The Comparative Method,” in *Political Science: The State of the Discipline II*, ed., Ada W. Finifter (Washington, DC: American Political Science Association, 1993), 105-119.

¹⁶⁸ George and Bennett, *Ibid.*, 19; Andrew Bennett, “Case Study Methods: Design, Use, and Comparative Advantages,” in *Models, Numbers, and Cases: Methods for Studying International Relations*, eds., Detlef F. Sprinz and Yael N. Wolinsky-Nahmias (Ann Arbor, MI: The University of

- addressing equifinality and specifying “scope conditions of theories.”¹⁶⁹

Although case study analysis is nominally a method, there is no universal blueprint on how exactly the analysis is conducted. Numerous instruments can be employed, but they have to be consistent with the overall objectives and the research question. In this study, focus on ‘systematic understanding,’ ‘thorough accounts,’ and ‘how’ question calls for the (1) multiple-case approach, (2) structured, focused comparison and (3) process tracing as well as a number of other supplementary tools available for applying case study method.

First, multiple-case as opposed to single-case analysis is selected in order to “include both within-case analysis of single cases and comparisons of a small number of cases.”¹⁷⁰ This increases the amount of evidence for supporting, refining or revising the theoretical framework. While case selection is discussed in the next section, selected cases combine several ideal types suggested in the literature and can be defined as exploratory¹⁷¹ “building block”¹⁷² cases. In other words, their function is to explore securitization processes with the goal of “identify[ing] common patterns,”¹⁷³ “developing more general theoretical propositions, which can then be tested through other methods, including large-N methods,” and “contribut[ing] to the *process* of theory construction rather than to theory itself.”¹⁷⁴

Second, while this composite type of case studies contributes to the specification of a multitude of variables as well as causal mechanisms, uncovering intervening causal mechanisms (equifinality), exploring reciprocal causation and endogeneity effects,

Michigan Press, 2004), 34; Collier, *Ibid.*; Stephen Van Evera, *Guide to Methods for Students of Political Science* (Ithaca, New York: Cornell University Press, 1997), 55.

¹⁶⁹ George and Bennett, *Ibid.*, 25, 27; Bennett, *Ibid.*, 34; Jack S. Levy, “Case Studies: Types, Designs, and Logics of Inference,” *Conflict Management and Peace Science* 25 (2008), 5.

¹⁷⁰ George and Bennett, *Ibid.*, 18.

¹⁷¹ Robert K. Yin, *Case Study Research: Design and Methods*, 3rd Ed (Thousand Oak, CA: Sage, 2003); Pamela Baxter and Susan Jack, “Qualitative Case Study Methodology: Study Design and Implementation for Novice Researchers,” *The Qualitative Report* 13, no. 4 (2008), 544-559.

¹⁷² George and Bennett, *Ibid.*, 76.

¹⁷³ *Ibid.*

¹⁷⁴ Levy, *Ibid.*, 5.

the instrument of structured, focused comparison enhances multiple case study analysis further to ensure that uncovered evidence “would yield useful generic knowledge.”¹⁷⁵ The theoretical framework is the foundation for both ‘structured’ and ‘focused’ analysis ensuring that every case is scrutinized using the same questions, data collection is standardized, and focus on securitization as the dependent variable is equally retained in each case throughout the analysis.

Third, structured, focused comparison is conducted through the application of several instruments. Thissen and Walker (2013) offer a review of a wide range of policy analysis techniques, some of which are applicable to this multiple case study research design.¹⁷⁶ As Table 3.7 illustrates, various instruments are used to address the questions associated with three input types of the theoretical framework. Each instrument helps to conduct a systematic analysis of different object components. *Objectives hierarchy* is helpful in uncovering and comparing goals of numerous policy actors, including policy stakeholders and securitizing actors. As discussed earlier, objectives are not always straightforward and easy to disentangle. Objectives hierarchy specifies them in terms of levels of related proxies.¹⁷⁷ *Means-Ends* analysis sheds light on policy actors’ values as well as complements the previous instrument in identifying their fundamental goals. Also, as the name of this instrument suggests, it helps to pay attention to the means that policy actors choose in order to achieve their ends.¹⁷⁸ The analysis of *Causal Relations* looks at external factors affecting the object of investigation. Unlike the means-ends approach which deals with the actors’ intended, or perceived, goals, causal relations analysis indicates causal influences from the factors that are out of policy actors’ direct control.¹⁷⁹ Components of the *IDA analysis* have been discussed in great detail as part of the theoretical framework. They relate to the referent object performance and decomposition of relevant

¹⁷⁵ George and Bennett, *Ibid.*, 67.

¹⁷⁶ Thissen and Walker, *Public Policy Analysis*.

¹⁷⁷ Thissen and Walker, *Ibid.*, 77-78.

¹⁷⁸ *Ibid.*, 75-76.

¹⁷⁹ *Ibid.*, 78.

institutions (See Section 3.2.3). Finally, *process tracing* is “a powerful method of inference” because throughout the case research process it insists “on providing a continuous and theoretically based historical explanation of a case.”¹⁸⁰ It contributes to the analysis of historical context of each case in relation to the theoretical framework and established relationships between numerous variables, which are reflected in the elements of the central research question.

Table 3.7: Instruments of Case Study Research

Object of the Theoretical Framework	Instrument of Analysis
Type I Inputs	Causal Relations Analysis Process Tracing Institutional Analysis
Type II Inputs	Objectives Hierarchy Means-Ends Analysis Causal Relations Analysis
Type III Inputs	IDA Sector Performance Analysis

3.5.2 Case Study Selection

The case study selection process is based on three criteria. First, a candidate case has to have mature oil and gas supply chains as an indicator of a dynamic oil and gas sector with a variety of actors and numerous observations over a significant period of time. Second, it has to be one of the top producers and consumers of both fossil fuels, which is illustrative of the importance of the oil and gas sector in national policy-making processes. Third, two selected cases are net exporters of both oil and gas and one case is a net importer of both fuels. The analysis of both exporters and importers is expected to allow for the variation in the dependent variable – performance of oil and gas supply chains. Countries well-endowed with oil and gas resources, net exporters are expected to be satisfied with security of their supplies and to be less

¹⁸⁰ George and Bennett, *Ibid.*, 30.

concerned with securitization. Supply chains in countries that are net importers of oil and gas are expected to be more predisposed to securitization.

Table 3.8: Top Oil and Gas Producers and Consumers in the World (2015)

Crude Oil		Natural Gas	
<i>Producers</i>	<i>Consumers</i>	<i>Producers</i>	<i>Consumers</i>
1. United States	1. United States	1. United States	1. United States
2. Saudi Arabia	2. China	2. Russia	2. Russia
3. Russia	3. India	3. Iran	3. China
4. Canada	4. Japan	4. Qatar	4. Iran
5. China	5. Saudi Arabia	5. Canada	5. Japan
6. Iraq	6. Brazil	6. China	6. Saudi Arabia
7. Iran	7. Russia	7. Norway	7. Canada
8. UAE	8. South Korea	8. Saudi Arabia	8. Mexico
9. Kuwait	9. Germany	9. Algeria	9. Germany
10. Venezuela	10. Canada	10. Indonesia	10. UAE

Source: BP (2016), *Statistical Review of World Energy*.

As evident from Table 3.8, the first choice of a case could be the United States. Although it is the top producer and consumer of both crude oil and natural gas, it has traditionally been an importer of both. The second potential case candidate is Saudi Arabia. While the largest exporter of crude oil, it is not a significant exporter of natural gas. Going further down the list of the top ten producers and consumers, Russia is the first country that fits all the criteria: a top producer and consumer of oil and gas as well as one of the largest exporters of both resources. Similarly, Canada is the only other country in the table that fits the same criteria. Thus, Russia and Canada have been selected as the two cases for analysis. They make interesting candidates for the application of the securitization framework in order to explore the following questions in depth: Is security of their respective supply chains compromised? If so, has securitization been present for a long time and has it applied equally to both oil and gas as the referent objects of this study? Most importantly, what are the mechanisms behind securitization?

Finally, the case of China was selected in order to trace securitization dynamics

within the context of another top producer and consumer of crude oil and natural gas, but unlike Canada and Russia, a net importer of both fuels. From this perspective, the United States would be a suitable candidate case as well. But due to the close link between the US and Canada's oil and gas supply chains, China is preferred as an independent case in order to ensure the variety of observations, players, and potential causal linkages originating from this case.

According to the latest estimates, Canada, China and Russia together hold 17% of the world's proved reserves of crude oil and 20% of natural gas. In 2015, they contributed over 21% of crude oil and about 25% of natural gas production in the world.¹⁸¹ Although the contexts of the three cases are hardly similar and they are expected to exhibit significant variation in the independent variables contributing to securitization, in the research design of the study this is an advantage rather than a limitation. "Looking at several cases that maximize variation across the independent variables" is useful in exploratory "building block" case studies because significant variation in the variables' values results in a clearly illuminated causality.¹⁸²

Starting dates of analysis differ between case studies: Canada – 1947, China – 1949, and Russia – 1968. All three dates are chosen with the common international event in mind – the first major oil crisis of 1973 – that has had significant political and economic effects on many national O&G sectors and broader energy strategies around the world. Starting points for case study analyses predate the 1973 oil crisis with the goal of understanding national contexts responsible for variations in reactions to the crisis. In Canada, the beginning of a large-scale O&G industry dates back to 1947, when major reserves were discovered in Alberta. In China, the analysis starts with the establishment of the modern Chinese state – the People's Republic of China – in 1949, even though O&G sector development did not begin until the early

¹⁸¹ BP, Statistical Review.

¹⁸² Levy, *Ibid.*, 7-8.

1960s. Finally, in the case of Russia, 1968 is chosen as a starting point for analysis as the year when oil overtook coal as the leading fossil fuel¹⁸³ in the USSR's primary energy mix and started playing an increasingly important role in the national economy. The difference in the starting points of analysis for China and Russia is based on the author's judgment that drastic changes in the institutional environment in case of Russia/USSR are more removed from the time when large-scale O&G development took off (1917 – 1968) as opposed to China where new statehood and significant O&G sector development are separated by a smaller time gap (1949 – early 1960s).

The ending date for analysis is 2015. It corresponds to the latest year the data for this study are available at the time of case study analyses. This date is chosen to reflect the most recent developments in the national and international contexts in order to produce the most up-to-date analysis of securitization processes.

While these cases are chosen based on their relevance to the research objectives of the study, the selection also takes into consideration the author's resources and constraints in studying these national contexts including established familiarity with the political and institutional environment of these countries, language skills, and access to primary and secondary resources.

3.5.3 Sources and Data

This study uses secondary data, as well as primary and secondary sources in order to analyze three country-specific oil and gas supply chains over the span of five – seven decades. For the purposes of conducting a comprehensive research with minimal selection bias, guidelines on data and sources choice from the works of Stewart & Kamins (1993), Blaikie (2000) and Thies (2002) are adopted.

¹⁸³ In percentage terms, but not in real numbers.

A distinction has to be made between primary and secondary *data* on one side and primary and secondary *sources* on the other. The latter classification is widely used by historians where primary source is “a document or physical object which was written or created during the time under study,” while secondary source interprets primary sources.¹⁸⁴ Primary and secondary data, however, are both raw data, but the difference is in the source of their collection. For instance, some data related to China’s case study are secondary due to the author’s language limitations. Other data on the same case study are primary because most recently Chinese government and companies provide official English version of essential documents. Data used with relation to the other two case studies, Canada and Russia, are predominantly primary.

Primary sources are diversified to ensure that research is based not simply on the most immediately available sources, but on the overall documentary evidence. While accounts might misjudge or misinterpret an event and government accounts (i.e., reports) can be affected by particular political conditions, including censorship,¹⁸⁵ this limitation does not apply to official government documentation such as laws, executive orders and others because despite political conditions they reflect the unbiased reality of events and trends at the time of their passage and publication.

In order to grasp the vast volumes of primary sources and make sure historical contexts are interpreted correctly, this research is heavily dependent on secondary sources. The use of secondary sources is associated primarily with relying on the work of historians and policy analysts. However, there are a few factors that make such reliance potentially problematic. For instance, Thies (2002) distinguishes two major problems with the use of secondary resources in qualitative research: investigator bias, and “unwarranted selectivity in the use of historical source

¹⁸⁴ Princeton University, *Primary Sources on the Web*.

¹⁸⁵ But it would not apply to official government documentation such as laws, executive orders, etc. because despite certain political conditions they do reflect the unbiased reality of an event that took place in the past.

materials.”¹⁸⁶ Both problems “can only be minimized, never eliminated.”¹⁸⁷ As a result, one of the goals of this study is “to demonstrate that the choice of primary and secondary source materials was made to minimize the potential adverse effects of selectivity and bias.”¹⁸⁸

Further, the dangers of selection bias make it crucial to explicitly justify the selection of secondary sources to ensure that the spectrum of scholarly opinion is represented and that all evidence is considered, rather than focusing on the work of a limited number of scholars.¹⁸⁹ For example, the dangers of “presentism,” whereby the “present is seen as the inevitable consequence of past events,” is a common danger in researchers’ accounts and can significantly taint empirical results.¹⁹⁰ Thus, although this study heavily relies on secondary sources, the spectrum of scholarly thought is assessed, and well-regarded and methodologically sound monographs and other research accounts are used.

Finally, along with analyses on the topic dating back to the 1970s – 1990s, the most recent secondary sources are examined in order to ensure that the most recently available evidence and analyses are reflected in the research.¹⁹¹ This is particularly important with regards to studying policy processes because many policy decisions are constantly being illuminated by document de-classifications and online publications.

3.6 Conclusion

This chapter established the detailed theoretical framework for the analysis of cases that follows in the next three chapters (Chapters 4 – 6). It has specified three types of

¹⁸⁶ Cameron G. Thies, "A Pragmatic Guide to Qualitative Historical Analysis in the Study of International Relations," *International Studies Perspectives* 3, no. 4 (2002), 351.

¹⁸⁷ *Ibid.*, 364.

¹⁸⁸ *Ibid.*, 355.

¹⁸⁹ Norman Blaikie, *Designing Social Research* (Cambridge, UK: Polity Press, 2000), 187.

¹⁹⁰ Thies, *Ibid.*, 359-360.

¹⁹¹ *Ibid.*, 362.

inputs within the framework that are relevant to the process of securitization, and a number of elements linking the main research question and the framework. It has also reviewed the constructed framework in light of the limitations of the original securitization theory to ensure the validity of the designed framework in addressing its critical weak spots. Finally, it discussed the methodology which will take the form of a multiple case study research and guide the application of designed theoretical framework to the analysis of oil and gas supply chains in three countries: Canada, China, and Russia over comparable time periods, namely 1947 – 2015, 1949 – 2015, and 1968 - 2015.

In the chapters that follow, case study analysis will be conducted and structured in accordance with the theoretical framework. Case studies will provide empirical evidence for the theoretical relationships underpinning the securitization framework. Detailed elements of the research question related to the three inputs of the framework will guide the analysis of each case. They will also serve as an instrument for comparing the outcomes of the framework's application in different national contexts as well as drawing case-specific and general conclusions and establishing research propositions for future research.

Chapter 4: Securitization of Oil and Gas Supply Chains in China (1949 – 2015)

4.1 Introduction

In the last 65 years, the People's Republic of China (PRC) transformed from a predominantly agrarian to an industrialized state. Large-scale industrialization and remarkable economic growth have been underpinned by a steep increase in consumption of fossil fuels. While coal will remain the main source of energy supply in the near future, demand for oil is persistent and natural gas consumption is on the rise. China is the fifth largest producer of oil in the world, second largest consumer and the top oil importer as of 2015.¹⁹² The country's gas resources are limited, but it is the third largest consumer of natural gas in the world.¹⁹³

Although oil and gas are combined under the umbrella of the same sector with legislation and many policies not distinguishing between the two resources, oil supply has been the primary objective of the sector and the policy-making processes surrounding it between 1960s and late 1990s. Government statements on encouraging gas development in China started to appear in the late 1990s, and natural gas received recognition as a crucial fossil fuel by the early 2000s.

Energy security entered the language of official Chinese government documents in the early 2000s, and oil supply is one of its key components. However, the process of securitization of oil supply chains preceded the arrival of energy security, or oil security, concepts to the policy discourse by many decades. The securitization process in the management of oil supply chains was initiated by the petroleum group¹⁹⁴ of the Ministry of Petroleum Industry (MPI) in the late 1950s. The members

¹⁹² BP, "Outlook to 2035."

¹⁹³ As of 2014, it holds less than 2% of the world's proven gas reserves (BP, "Outlook to 2035"); Julie Jiang and Chen Ding, "Update on Overseas Investments by China's National Oil Companies," International Energy Agency (2014), 11.

¹⁹⁴ The leaders of the Daqing field development who were able to quickly climb the ladder of the Communist Party-dominated decision-making system. Individuals including Yu Qiuli, Kang Shien, Tang Ke, and Song Zhenming were rewarded for their hard work by Mao, and soon "emerged as major figure[s] in the economic sphere... In turn, [they] used their enhanced position to advance the mission of

of this group were policy entrepreneurs who advanced securitization in order to counter the threat of China's full dependence on imports and potential external oil supply interruption. Once set in motion, the process of securitization did not require much effort on the part of the petroleum group through the 1970s. The new internal and external challenges of the 1980s contributed to the rise of a new securitizing actor – the NOCs. Originally acting as policy brokers, NOCs transformed into dominant decision-makers of the O&G policy arena by the 2000s. The securitization process is still underway, but new actors who may speed up or reverse the process are challenging the established power of NOCs.

Securitization of natural gas supply chains is much more recent. Barely visible in China's energy mix, gas is an emerging arena for clashing beliefs, interests, and objectives of numerous policy actors. Active securitization of gas supply chains began in the mid-2000s with the diversification of supply sources and infrastructure build-up. Construction of LNG terminals, promotion of coalbed methane (CBM) and shale gas, and ongoing extension of existing pipeline infrastructure beyond national borders are the measures being implemented with the goal of securing long-term gas supplies. However, unlike oil, gas supplies are not politicized, and in current conditions of low demand and low prices, policy actors do not perceive gas supply chains as immediately threatened.

Following the structure of the securitization framework constructed in Chapter 3, this chapter analyzes securitization trends in China's upstream and midstream segments of oil and gas supply chains. Type I inputs (Section 4.2.1) demonstrate that the nature of the institutional ecosystem determines the general policy direction of various policy arenas, including the one responsible for oil and gas supply chains. A unique set of hierarchically nested embedded institutions, the institutional environment, and

[MPI,] the organization in which their power was rooted” (Kenneth Lieberthal and Michel Oksenberg, *Policy making in China: leaders, structures, and processes* (Princeton, NJ: Princeton University Press, 1988), 183-4, 190-1).

institutional arrangements creates China's institutional ecosystem in which O&G supply chains operate and are managed by the policy actors. Type II inputs (Section 4.2.2) analyze the role of the central level, provincial level and peripheral actors, distinguish securitizing actors from policy stakeholders, and separate securitization processes within oil supply chains and gas supply chains. Type III inputs (Section 4.2.3) detail changes in the components of the institutional arrangement governing O&G supply chains and their effect on the evolving configuration and performance of the key players in the sector – international oil companies (IOCs), private domestic companies, and NOCs. The final section synthesizes the key findings on the securitization processes in China's O&G supply chains (Section 4.3).

4.2 China's O&G Supply Chains in the Securitization Framework

4.2.1 Type I Inputs: Institutional Ecosystem

4.2.1.1 Embedded Institutions

Cultural characteristics of the Chinese society have formed centuries prior to the establishment of the current institutional environment under the leadership of the Communist Party in 1949. They take their roots in Confucianism, importance of family and personal ties, and acceptance of a highly hierarchical society among others.¹⁹⁵ In the energy field, and oil and gas sector in particular, the core norms and traditions have manifested themselves in such concepts as self-reliance, “a belief in man's ability to master nature”, and “acceptance of austerity.”¹⁹⁶

The elements of embedded institutions illustrate the influence of history and culture on the policy course as well as the ability of deeply rooted beliefs and ideas to adapt to changing circumstances. For instance, the concept of self-reliance has evolved significantly over time. It can be traced back to the 19th century “self-strengthening

¹⁹⁵ Philip Andrews-Speed, *The governance of energy in China: transition to a low-carbon economy* (Basingstoke: Palgrave Macmillan, 2012), 112-113.

¹⁹⁶ Andrews-Speed and Dannreuther, *China, oil and global politics*, 38.

movement” and interpreted as a government response to constant foreign interference in China’s domestic energy system.¹⁹⁷ Having emerged as a rather simplistic idea of banning foreign involvement in China’s energy sector in the 1950s, it was modified to allow foreign technology in domestic industrialization process only a decade later.¹⁹⁸ In the 1970s, ‘self-reliance’ was combined with the ‘open door’ policy, thus becoming even more inclusive.¹⁹⁹ Gradually, a complete transformation of the concept took place whereby self-reliance turned into a new instrument of actively involving foreign capital and joint ventures (JVs) “to modernize and expand mineral and energy production and exports.”²⁰⁰ Finally, by the early 2000s, self-reliance justified a new ‘going out’ strategy in the wake of China’s new status as a net oil importer in 1993 and net crude oil importer in 1996.

The importance of cultural attributes as the deepest layer of the institutional ecosystem is echoed as far as the policy arena governing oil and gas supply chains. For instance, by virtue of being appointed by the central government, NOCs’ leaders enjoy “direct access to the Chinese leadership.”²⁰¹ Personal ties between the government and NOCs’ leadership are a source of preferential treatment when it comes to investment approvals²⁰² and government appointments. This practice dates back to the creation of first SOEs for servicing joint ventures in the early 1980s, when Chinese companies were granted an automatic preference in competition with foreign counterparts.²⁰³ It inevitably contributes to challenges of a close relationship between the central government and NOCs.

¹⁹⁷ Kim Woodard, *The international energy relations of China* (Stanford, CA: Stanford University Press, 1980), 33, 35.

¹⁹⁸ *Ibid.*, 219.

¹⁹⁹ Ronald C. Keith, *Energy, security and economic development in East Asia* (London: Croom Helm, 1986), 42, 64-5. Lieberthal and Oksenberg, *Policy making in China*, 207-208.

²⁰⁰ James P. Dorian, *Minerals, energy, and economic development in China* (Oxford: Clarendon Press, 1994), 3.

²⁰¹ Erica S. Downs, "The Chinese Energy Security Debate," *The China Quarterly* 177 (2004), 25. Erica Downs, "China," *Foreign Policy Studies*, The Brookings Institution (December 2006), 21-24. Bo Kong, *China's international petroleum policy* (Santa Barbara, CA: Praeger Security International, 2010), 25.

²⁰² Downs, "China," 40.

²⁰³ Lieberthal and Oksenberg, *Ibid.*, 383.

With regards to securitization processes, embedded institutions underpinning China's institutional environment are likely to facilitate the ascent of a securitizing actor. As a strong policy actor, the securitizing actor could potentially use personal ties to his/her advantage and benefit from the well-defined hierarchical structure. Moreover, embedded institutions are a "reservoir [that] feeds the soil"²⁰⁴ in which institutional environments bloom and fade, and where individual actors behave according to certain norms and expectations.²⁰⁵ At the same time, individuals manipulate cultural norms and ideas they generate. As a result, embedded institutions might aid securitizing actors in undermining certain elements of the institutional environment that look unappealing to them (i.e., constitutional norms). Thus, understanding embedded institutions helps make sense of why some elements of the institutional environment function more effectively than others, such as the Communist party vs. the Constitution.

4.2.1.2 Institutional Environment

According to the securitization framework, the institutional environment is shaped largely by the underlying embedded institutions, but it also internalizes a variety of domestic and global trends, and can be influenced by numerous policy arenas it hosts. Even institutional environments designed to be radically different from their predecessors, as was the case with the establishment of the PRC in 1949, cannot escape the influence of deeper institutional layers. The Chinese Communist Party (CCP) is at the core of China's current institutional environment, and its ideology is consistent with the deeply rooted societal values such as significance of hierarchies, acceptance of austerity, and focus on self-reliance. It is also capable of adapting itself and other institutions to changing conditions and new trends entering the institutional

²⁰⁴ David L. Shambaugh, *China's Communist Party: atrophy and adaptation* (Washington, D.C.: Woodrow Wilson Center Press, 2008), 6.

²⁰⁵ Yongnian Zheng, *The Chinese Communist party as organizational emperor: culture, reproduction and transformation* (London: Routledge, 2010), 21.

environment. Finally, the influence of specific policy arenas on the overall institutional environment is reflected in the CCP ensuring that the dominant ideology is subordinate to policy.²⁰⁶

As the supreme institution,²⁰⁷ the CCP is outside and beyond the boundaries designed to contain the power of all other institutions, and is responsible for managing its own adaptation and ultimate survival.²⁰⁸ A handful of mechanisms²⁰⁹ employed by the Party help sustain its central role (See Appendix 1). Together they have a strong impact on legislative and executive branches of the Chinese government, manage China's political life, its human resources, and channels of communication. Relevant to the management of oil and gas supply chains are such mechanisms as the *nomenklatura* system (leadership of the ministries and NOCs is decided by the central government represented by the Central Committee) and *dangzu* (established in major NOCs²¹⁰).

The CCP also dominates and manipulates the legal system and “enjoys[s] the privilege of being above the Constitution and the law.”²¹¹ Manipulations are reflected in the design of the legal system, in the amendments²¹² to the Constitution, which correspond with the changes in the Party's long-term vision, in the lack of a strong

²⁰⁶ Built on Marxist-Leninist ideology, the Party does not have the privilege to reject the ideology if it no longer suits its interests and objectives. Instead, it has to “finesse and adapt the ideology to suit policy decisions taken on nonideological grounds” (Shambaugh, *Ibid.*, 105).

²⁰⁷ The Party is analyzed as the central element of the institutional environment and not as one of the policy actors because it is a single defining element of the entire system.

²⁰⁸ Shambaugh, *Ibid.*, 2.

²⁰⁹ Various classifications of these mechanisms exist. For instance, they can be divided according to three types of power exercised by the CCP: coercion, bargaining, and reciprocity (Zheng, *Ibid.*, 33-4). They can also be associated with the organizational structures that the Party uses to achieve the desired outcome. The multiplicity of organizations and the range of their functions demonstrate deep and extensive reach of the Party as an institution.

²¹⁰ The Party groups make up “the core decision-making body for the company, deciding on all major issues ranging from corporate development and investment strategy to personnel selection” (Kong, *China's international petroleum policy*, 25).

²¹¹ The National People's Congress of the People's Republic of China, *The Constitution of the People's Republic of China* (December 4, 1982), Article 5. Zheng, *Ibid.*, 113.

²¹² Adopted in December 1982 by the 5th National People's Congress, the Constitution experienced several rounds of revision. During one of them, in November 2002, Jiang Zemin's “Three Represents” theory was added to the Constitution's Preamble (Xinhua, “Important thought of Three Represents written into CPC constitution,” *China Daily* (November 14, 2002)). “Three Represents” resolved the factional fight proclaiming the victory of reformists, and introduced new principles of “full marketization, private ownership, and asset circulation” (Shambaugh, *Ibid.*, 111-13).

designated constitutional enforcement authority,²¹³ and Chinese courts generally not taking the Constitution into account when making decisions on cases.²¹⁴ Nevertheless, the Constitution serves as the foundation for the management of mineral resources, and thus, for resource-specific legal frameworks²¹⁵ at the level of multiple institutional arrangements nested within the institutional environment. Article 9 of the Constitution states that “mineral... and other natural resources are owned by the state, that is, by the whole people, with the exception of the [resources] that are owned by collectives in accordance with the law,” and “the state ensures the rational use of natural resources.”²¹⁶

In order to keep up with constantly emerging intra-party challenges and trends outside its direct control, the CCP strives to preserve its coherence and power in the institutional environment. For instance, as early as the 1960s, factional politics alarmed the CCP’s leaders to the necessity to accommodate different interests and institutionalize intra-party relations.²¹⁷ In the absence of interest accommodation and formal rules, “factions might form an alliance to fight against the dominant factions”²¹⁸ and put at risk stability and smooth power succession. Although the issue of factional politics remains on the table, and aggravations are still feared during power successions,²¹⁹ institutionalization of intra-party politics has progressed

²¹³ Officially, the National People’s Congress (NPC) has the power to amend the Constitution and supervise its enforcement (*The Constitution of the People’s Republic of China*, Article 62 (62.1 and 62.2)). In practice, it has no “time, expertise, or resources to effectively supervise enforcement of the constitution and execution of the laws” (Kam C. Wong, *Police reform in China* (Boca Raton, FL: CRC Press, 2012), 320). In 2002, the NPC created a special committee for these purposes.

²¹⁴ Joanna Chu, “China’s Constitutional Crisis,” *The Atlantic* (September 3, 2013).

²¹⁵ See Section 4.2.3.1 for the discussion of O&G legal framework.

²¹⁶ *The Constitution of the People’s Republic of China*, Article 9.

²¹⁷ The petroleum group and the Gang of Four discussed later in this chapter in the context of the rise of the MPI and the petroleum industry as the backbone of China’s economic development are just two of many examples of factions.

²¹⁸ Zheng, *Ibid.*, 96.

²¹⁹ In the most recent anti-graft campaign under Xi Jinping’s leadership in 2013-2015, two high-ranking politicians, Zhou Yongkang and Bo Xilai, who belonged to the faction of Jiang Zemin, were placed under investigation and found guilty of corruption. Members of the “Northwest faction” in the military have been prosecuted as well. Although some interpret these events as a feature of heated faction politics, others caution that such a view is flawed (Cheng Li and Tom Orlik, “China’s Corruption Crackdown More Than Factional Politics,” *Brookings Institution* (July 31, 2014)). The latter opinion also recognizes a new, negative, attitude towards factions in Xi Jinping’s actions, which is “a departure from the party’s preferred narrative” on the united cadres (Minnie Chen, “He made Xi Jinping very

significantly and is now much more “consensus-based and coalitional”²²⁰ than in the “strongman politics” eras of Mao Zedong and Deng Xiaoping.²²¹ With regards to trends external to the CCP, most recently the Party broadened its recruitment base, pushed for economy marketization, promoted private ownership, and started paying increasing attention to social inequality inside the country.²²² Even though the CCP often struggles to respond to challenges in a timely manner, some of its functions erode, and others become atrophied, on the whole, it has been able to maintain its leadership and legitimacy.²²³ Despite the fact that national policy-making processes have become more pluralistic, decentralization and increased inclusiveness were carried out by the Party with the ultimate goal of consolidating its resources and strengthening its authority.

Thus, taking into account major characteristics of China’s institutional environment, it is possible to conclude that in securitization processes, the CCP can either be a strong ally in a securitizing actor’s attempts to initiate the securitization process, or a strong force capable of stopping a securitizing actor. The exploration of the CCP’s role makes it evident why even seemingly strong actors, such as the petroleum group and the NOCs, seek support of the Party in achieving their respective objectives. Through institutionalized mechanisms of *nomenklatura* and *dangzu* as well as the use of factional politics to its advantage, the Party ensures its control over the broad institutional environment and policy processes in specific policy arenas like the one governing oil and gas supply chains.

angry’: the rise and fall of once-powerful Chinese general Guo Boxiong,” South China Morning Post (July 31, 2015)).

²²⁰ Shambaugh, *Ibid.*, 157.

²²¹ In November 2004, the 4th Plenum of the 16th Central Committee emphasized the importance of intra-party governance and adopted a resolution to “deepen reform of the cadre and personnel systems” (Dingping Guo, “The Growth of Intra-party Democracy and Its Implications for China’s Democratic Future,” *Fudan Journal of the Humanities and Social Sciences* 7, no. 1 (2014), 7). In September 2009, the 4th Plenary Session of the 17th Central Committee produced a number of important directives which focused on “strengthening and improving Party building” (“CPC Central Committee closes plenum, vows to enhance democracy, fight corruption,” Xinhuanet (September 18, 2009)). Suggested paths for improvement included increased competition in inner-Party elections, “decisions by votes,” as well as new measures to curb corruption and promote transparency (Cheng Li, “Intra-Party Democracy in China: Should We Take It Seriously?” Brookings (2009), 7-11).

²²² Shambaugh, *Ibid.*, 111-115; Andrews-Speed, *The governance of energy in China*, 126.

²²³ Zheng, *Ibid.*, 65-6.

4.2.1.3 Horizontal Institutional Linkages

The one truly independent institution – the CCP – has always been concerned with subordinate government institutions acquiring too much power relative to the Party and getting out of its control. This dynamic has had different consequences for the energy sector as a whole compared with the O&G sector. Unlike the energy sector that appears to be transitioning from complementary to a single independent institution structure since 2010, oil and gas sector management is changing from the one dominated by independent institutions to governance by complementary institutions since the late 1990s.

The energy sector saw the prevalence of overlapping institutions until the late 1980s, independent institutions until early 1990s, complementary institutions in 1993 – 2003, and a single independent institution since 2008 – 2010. In the late 1980s, once the work of the energy sector was impeded to the extent that challenges such as electricity provision or oil production targets were no longer met, efforts were made to bring the overlapping institutions together under the auspices of a stronger independent institution. Ultimately, such efforts were short-lived because of the inability of the newly created State Energy Commission (1980 – 1982), the Ministry of Energy (1988 – 1993) and the State Economic and Trade Commission (1998 – 2003) to exercise power in practice due to a faulty institutional arrangement design, where changes in the administrative arrangement were not accompanied by changes in the legal and policy frameworks.²²⁴ When attempts to establish strong independent institutions failed, the Party in conjunction with the State Council tried to transform

²²⁴ For instance, the Ministry of Energy (MOE) was established to bring the functions of the Ministry of Petroleum Industry and other energy industries under one umbrella. Legally oil and gas ‘corporations’ limited MOE’s powers. With regards to the policy framework, MOE’s goals did not fit into the government recentralization programme and a Three-Year Austerity Programme (1988 – 1991) (Downs, “China,” 17-8; Dorian, *Ibid.*, 75, 80, 114).

overlapping institutions into complementary ones.²²⁵ Finally, independent institutions materialized in the shape of the NEA in 2008 and NEC in 2010.²²⁶

The oil and gas sector, originally dominated by independent institutions, is now governed by a set of complementary institutions. As one of the most important sectors of the Chinese economy, the oil and gas sector has had a well-defined management structure since the 1950s. When it was not a part of a unified agency in charge of energy policy, the Ministry of Petroleum Industry (under different names) had a mandate separate from coal and chemical industries in 1955 – 1970 and 1978 – 1988. Moreover, as demonstrated by the prominent position of the petroleum group in the 1960s – 1970s, the ministry in its various forms was a powerful actor in both oil and gas and national economic policy-making. The large-scale management restructuring and replacement of the ministerial system with the NOCs in 1993 was a lengthy well-thought process of resources and assets transfer from the Ministry of Petroleum to the NOCs. The same can be said about the regulatory control over NOCs, with the exception of the 1993 – 1998 period when NOCs were practically left to regulate themselves. Regulatory functions were transferred from the Ministry of Energy (1988 – 1993) to the NDRC (1993 – 1998) and further diffused to enhance their strength between the NDRC, SETC, and MLR (1998 – 2003), and between the NDRC, MLR and SASAC (2003 – present). Overall, current transition to complementary institutions is likely to make the job of existing securitizing actor

²²⁵ For instance, in the early 1990s, activities along oil and gas supply chains were clearly divided between major NOCs (Kong, *China's international petroleum policy*, 14; Bo Kong, *An Anatomy of China's Energy Insecurity and Its Strategies*, Pacific Northwest National Laboratory. PNNL-15529 (October 2005), 45-7). Since the late 1990s, when NOCs were transformed into vertically integrated companies, their domestic operations were divided geographically in order to avoid competition (International Energy Agency, "Developing China's Natural Gas Market: The Energy Policy Challenges," *OECD* (2002), 82; Philip Andrews-Speed, Stephen Dow and Zhiguo Gao, "The Ongoing Reforms to China's Government and State Sector: The case of the energy industry," *Journal of Contemporary China* 9, no. 23 (2000), 12). During the same reform process, NOC regulatory oversight was distributed between the NDRC, SETC, and MLR. In 2003, SASAC was added to the mix of NOC regulators.

²²⁶ Establishment of the latter, the NEC, is the most decisive move by the Chinese state to establish an independent overarching energy policy body to date because unlike its predecessors, the NEC is not subordinate to the powerful NDRC. However, even NEC's independence is limited as it draws on the expertise of its members – ministers, chairmen, directors and other leaders in their respective fields and organizations.

(NOCs as the dominant decision-maker) in the O&G policy arena harder if there is a disagreement about the effect of perceived threat(s) on the sector performance.

4.2.1.4 Institutional Ecosystem – Policy Arena Link

The examination of China's embedded institutions and the institutional environment demonstrates that there is no one-way relationship between the institutional ecosystem and the relevant policy arena. Depending on trends and shifting conditions, nested institutional layers propel changes in the policy arena and vice versa. On the one hand, despite the fact that the institutional ecosystem predetermines many characteristics and the course of action of the policy arena, individuals operating on the level of the policy arena can make changes that reach beyond their respective policy arena and well into the institutional arrangement and environment. Additionally, policy actors bring changes to the institutional environment by reinterpreting the values (i.e., the concept of self-reliance) deeply rooted in embedded institutions and aligning them with their evolving objectives. On the other hand, policy arena actors source their legitimacy from the institutional ecosystem in order to be successful in their attempts to implement changes. For instance, cultural acceptance of a highly hierarchical society has been preserved for generations. Also, the most powerful actors in Chinese policy-making process are the ones associated with the central institution, the CCP.

The dominance of the CCP in the institutional environment and its ability to manipulate the core principles embedded deep in the institutional ecosystem make it an indispensable part of the securitization process in any policy arena, including the one governing oil and gas supply chains. Even if securitization has been driven by such policy actors as the petroleum group or the NOCs, it would not be able to advance without the support of the Party.

Following the structure of the securitization framework, Section 4.2.1 analyzed Type I inputs of the theoretical framework. It described two deepest hierarchical layers of the institutional ecosystem – embedded institutions and the institutional environment, and identified horizontal relations within institutional layers. The next section, Section 4.2.2, of this chapter will analyze Type II inputs originating from the policy arena governing oil and gas supply chains.

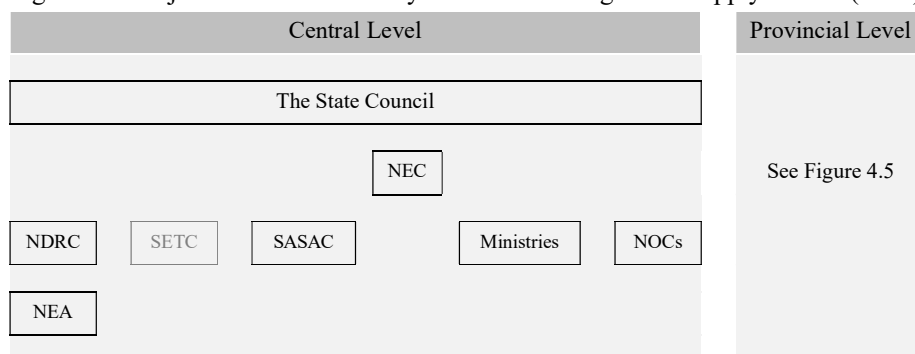
4.2.2 Type II Inputs: Policy Arena

4.2.2.1 Overview of Policy Actors

In addition to being nested within broader energy policy-making, the management of oil and gas supply chains is linked to industrial, economic, trade and foreign policies. As O&G policy formulation and implementation continue to evolve, players directly and indirectly involved in the policy process change as well. Policy arena participants in charge of O&G supply chains can be grouped into central level, provincial level, and peripheral actors. The central level policy actors are represented by a number of supra-ministerial and ministerial policy-making bodies (Figure 4.1, Table 4.1). Provincial and local government and bureaucracies form an additional layer of policy arena dynamics and play an important role in decision-making processes (Figure 4.2). Last but not least, a growing number of research institutes, universities, media outlets, international organizations and public opinion influence the formulation of oil and gas, and broader energy policies²²⁷ (See Appendix 2).

²²⁷ Andrews-Speed, *The governance of energy in China*, 128.

Figure 4.1: Major Actors in the Policy Arena Governing O&G Supply Chains (2015)



Notes: The **State Council**²²⁸ oversees all commissions and ministries, drafts and implements national economic plans and the state budget, approves domestic and international energy investments, and appoints the heads of the national oil companies.²²⁹

The **National Development and Reform Commission (NDRC)**,²³⁰ directly under the State Council, is a major coordinating body ensuring implementation of national energy policy.²³¹ In the energy sector, it “is responsible for establishing policies for minerals and energy development,”²³² allocating natural gas production quota and setting gas prices,²³³ and approving investment projects of more than US\$30 million.²³⁴ In the framework of restructuring and decentralization in the last 35 years, NDRC has been challenged to share some of its policy-making powers with subordinate, but more specialized energy agencies.²³⁵

The **National Energy Administration (NEA)**²³⁶ formed in 2008 and an even more powerful **National Energy Commission (NEC)**²³⁷ established in 2010 are two of the most recent central government’s attempts²³⁸ at creating an overarching national energy policy body.

²²⁸ The State Council is “directly responsible to the Central Committee of the Chinese Communist Party,” (Woodard, *Ibid.*, 78) “is the executive body of the highest organ of state power in addition to being the highest organ of state administration” (Dorian, *Ibid.*, 107). Although the State Council underwent a great deal of restructuring in the late 1980s – 1990s, it retained its major powers and responsibilities (Andrews-Speed et al. (2000), *Ibid.*, 12).

²²⁹ Dorian, *Ibid.*, 107; Downs, “China,” 21-24; Kong, *China’s international petroleum policy*, 42-43.

²³⁰ Previously known as the State Planning Commission, SPC (1954 – 1998) and the State Development Planning Commission, SDPC (1998 – 2003).

²³¹ It is responsible for five-year planning, project financing (including making sure that conflicts are avoided between centrally funded and local projects which “may compete for control of the same resource potential” (Keith, *Ibid.*, 56-67), and integrating sectoral and territorial planning by the ministries and local governments (Dorian, *Ibid.*, 51, 107-8; Kong, *An Anatomy of China’s Energy Insecurity*, 20-21; Downs, “China,” 16).

²³² Dorian, *Ibid.*, 50-51.

²³³ International Energy Agency, “Developing China’s Natural Gas Market: The Energy Policy Challenges,” 86.

²³⁴ *Ibid.*, 293-294.

²³⁵ For example, “there are at least seven offices within the NDRC that oversee the oil sector” (Downs, “China,” 16; Erica Downs, “China’s “New” Energy Administration,” The Brookings Institution (November 19, 2008), 44).

²³⁶ With a broad mandate of managing national energy policy, the NEA faces the same problems as its predecessors: its ability to successfully perform its duties is undermined by the NDRC’s power. First, it is a vice-ministerial body, hence, it does not have the authority over ministries and national oil companies, which are above the NEA. Second, the administration lacks human and financial resources, and the leadership of NDRC and NEA is closely intertwined. NEA’s two consecutive directors, Zhang Guobao (2008 – 2010) and Liu Tienan (December 2010 – March 2013) were simultaneously serving as the Vice-Chairs of NDRC. The current director of NEA, Nur Bekri, who assumed the post in December 2014 (After Liu Tienan was sentenced to life in prison based on corruption charges, Wu Xinxiang headed the NEA (March 2013 – December 2014), who was chosen as an “interim pick as he neared retirement.” (“Energy regulator NEA’s new chief Wu Xinxiang seen as neutral,” South China Morning Post (March 20, 2013)), is also concurrently one of the vice-chairs of NDRC. Third, although NEA does have more autonomy than its predecessors and reports directly to the State Council, its logistics are still controlled by the NDRC and the latter preserved its power to set energy prices. Thus, considering all

The **State Economic and Trade Commission (SETC)**,²³⁹ created in 1993, was the NDRC's main competition in 1998 – 2003. The functions of two administrative bodies – SACI and SAPCI – inherited by the SETC became the foundation of its strength.²⁴⁰

The **State-Owned Assets Supervision and Administration Commission (SASAC)** was established in 2003 and gained important powers in relation to oil and gas management. It “serves as the watchdog of the state-owned assets in the hands of centrally owned SOEs, including the three oil companies”²⁴¹ and employs two major mechanisms: financial planning and appointment of Chiefs of the Discipline and Inspection Groups.²⁴²

these limitations, NEA is likely to be “a transitional institution” (Downs, “China’s “New” Energy Administration,” 42-45).

²³⁷ The NEC is supplementary to the NEA, but hierarchically more significant. It is headed by the Premier and is free of NDRC’s control. The membership of the commission resembles “a smaller version of the State Council” (Zhiyue Bo, “China’s New National Energy Commission: Policy Implications,” *EAI Background Brief No. 504* (February 5, 2010), 9). It consists of 23 heads of various ministries, central bank, bureaux and administrations (Among the current members of the NEC, there are 10 ministers, chairmen of the NDRC and SASAC, NEA Director, and Vice Governor of the People’s Bank of China) and is tasked with “drafting a national energy development strategy and discussing major energy security and development issues” (Downs, “China’s “New” Energy Administration,” 43). But its effectiveness has been questioned, since it is “designed as a consultation bureau” with no “control over the state-owned oil, gas and electricity companies” (Michal Meidan, Philip Andrews-Speed and Ma Xin. “Shaping China’s Energy Policy: actors and processes,” *Journal of Contemporary China* 18, no. 61 (2009), 612).

²³⁸ In the past, similar agencies included the State Energy Commission (1980 – 1982) and National Energy Bureau (2003 – 2008). The State Energy Commission (SEC) was established in order to integrate functions of various energy sectors, but it did not have clear responsibilities or sufficient resources, its mandate overlapped with that of NDRC, and although it was a superministerial body, it “had no coercive power over ministries.” (Lieberthal and Oksenberg, *Ibid.*, 254; Downs, “China,” 17-8; Xuedong Ding and Jun Li, *Incentives for innovation in China: building an innovative economy* (New York: Routledge, Taylor & Francis Group, 2015), 129). The National Energy Bureau (NEB) was the first attempt of the government at consolidating energy policy in the hands of one overarching authority since 1993. But the bureau lacked financial and human resources to manage NOCs and other actors of the energy sector. Its major limitation was the fact that it was established under the NDRC and thus served its interests. Also, it was below ministerial level and was not given the power to “coordinate among more politically powerful stakeholders such as the state-owned energy companies and other ministries.” (Downs, “China,” 18)

²³⁹ During the 1998 reforms, the two remaining energy ministries, of power and coal, were abolished and their tasks moved to the Department of Electrical Power (DEP) and the State Administration of the Coal Industry (SACI). (Dali L. Yang, *Remaking the Chinese leviathan: market transition and the politics of governance in China* (Stanford, CA: Stanford University Press, 2004), 38; Roselyn Hsueh, *China’s Regulatory State: A New Strategy for Globalization* (Ithaca and London: Cornell University Press, 2011), 150). At the same time, government functions were “theoretically removed” (International Energy Agency, “Developing China’s Natural Gas Market: The Energy Policy Challenges,” 294) from national oil companies and passed on to the newly established State Administration for Petroleum and Chemical Industries (SAPCI). Only two years later, SACI and SAPCI were abolished and their responsibilities became direct functions of the SETC. (International Energy Agency, *Ibid.*, 82) Moreover, “the previous Chief Executive of Sinopec was appointed Chairman of the SETC.” (Andrews-Speed et al. (2000), 12).

²⁴⁰ Yanrui Wu, *China’s economic growth: a miracle with Chinese characteristics* (London: RoutledgeCurzon, 2004), 96. Andrews-Speed et al. (2000), 12.

²⁴¹ Kong, *China’s international petroleum policy*, 26.

²⁴² SASAC’s First Bureau for the Administration of Corporate Executives appoints and removes Chiefs of the Discipline and Inspection Groups in the state-owned oil companies and their subsidiaries. This is to ensure that party direction is followed through, anticorruption investigations are conducted thoroughly, and NOCs operate within constructed boundaries (Kong, *Ibid.*, 26-7).

Table 4.1: Relevant Ministerial Level Actors in the O&G Supply Chains Policy Arena (1949 – 2015)

Directly Relevant to Oil and Gas	
Ministry of Fuel Industry (1949 – 1955)	→ Ministry of Petroleum Industry (1955 – 1970)
Ministry of Petroleum Industry (1955 – 1970)	→ Ministry of Fuels and Chemical Industry (1970 – 1975)
Ministry of Petroleum and Chemical Industry (1975 – 1978)	→ Ministry of Chemical Industry (1978 – 1998) ↘ Ministry of Petroleum Industry (1978 – 1988)
Ministry of Petroleum Industry (1978 – 1988)	→ Ministry of Energy (1988 – 1993)
Ministry of Geology and Mineral Resources (until 1998)	→ Ministry of Land Resources (1998 – Present) ¹
Supporting Ministries	
Foreign Ministry (MFA/MOFA) ²	
Ministry of Commerce (MOFCOM) ³	
Ministry of Public Security	
Ministry of Construction (until 2008)	→ Ministry of Housing and Urban-Rural Development
Ministry of Labour and Social Security + Ministry of Personnel (until 2008)	→ Ministry of Human Resources and Social Security
State Environmental Protection Administration (until 2008)	→ Ministry of Environmental Protection
State Science and Technology Commission (until 1998)	→ Ministry of Science and Technology
Commission for Science, Technology and Industry for National Defense (until 2008)	→ State Administration for Science, Technology and Industry for National Defense (SASTIND)
Finance	
Ministry of Finance ⁴	→ People's Bank of China ⁱ (1978 – Present)
People's Bank of China ⁱ	→ China Development Bank (1994 - Present) ⁱⁱ ↘ Export-Import Bank of China (1994 - Present) ⁱⁱ

Sources: ¹ Dorian, *Minerals, energy, and economic development in China*, 51, 116-8; Andrews-Speed, Dow and Gao, "The Ongoing Reforms to China's Government and State Sector," 12; IEA, "Developing China's Natural Gas Market," 295; 300-1; Kong, *An Anatomy of China's Energy Insecurity and Its Strategies*, 20-21; Wang, *China's oil industry & market*, 117-8.

² Downs, "The Chinese Energy Security Debate," 26; Downs, "China," 16.

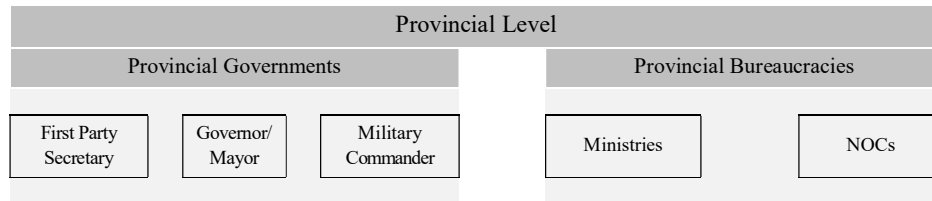
³ The Asia Research Centre, "China's Energy Policy Report," 11-13; Downs, "China," 16.

⁴ Kong, *An Anatomy of China's Energy Insecurity and Its Strategies*, 20-21; Downs "China," 16.

Notes: ⁱ People's Bank of China was initially established under the Ministry of Finance, but received a full ministerial rank in 1978.

ⁱⁱ Both policy banks “provide lines of credit to Chinese NOCs and foreign entities – mainly NOC counterparts – to support international expansion and secure oil or natural gas deals.”²⁴³ Although policy banks are state-owned, similar to NOCs, they pursue commercial objectives and make sure that their investments are profitable. Export-Import Bank of China (CEIB) does not have a ministerial rank but is listed here as one of the two policy banks relevant to the O&G sector.

Figure 4.2: Major Provincial Level Actors in the Policy Arena Governing O&G Supply Chains



4.2.2.2 *Securitizing Actors and Policy Stakeholders*

While in the experience of China’s oil and gas supply chains in 1949 - 2015 securitizing actors originated from the ranks of the central level policy actors, the importance of other central level, provincial level and peripheral actors as policy stakeholders is undeniable.

First, such bodies as the State Council and the NDRC are directly associated with the key institution, the CCP, and draw their power from the institutional environment. Securitizing actors are aware that underestimating the power of these stakeholders would endanger their potential success. Similarly, as the pure hierarchical regime²⁴⁴ of absolute subordination on the part of provincial governments is evolving into a complex partnership with the Center, provinces gain access to a more active re-shaping of deeply rooted values and ideas. For instance, in the late 1960s – early

²⁴³ Huw McKay and Ligang Song, *Rebalancing and sustaining growth in China* (Canberra, ACT: ANU Press, 2012), 339. For instance, in one of the latest cooperation efforts, CNPC and Sinopec each formed a strategic alliance with CDB in September 2010 in order to secure long-term low-rate loans for the companies’ expansion abroad (Julie Jiang and Jonathan Sinton, “Overseas Investments by Chinese National Oil Companies: Assessing the Drivers and Impacts,” International Energy Agency (February 2011), 16).

²⁴⁴ The strong vertical link between the Center and the Province has always existed and continues to influence relations between the two. In the 1960s, the petroleum group went up the leadership ladder in less than 25 years. But its members “had to bargain and strike deals... to secure the cooperation of the pertinent ministries and provinces.” (Lieberthal and Oksenberg, *Ibid.*, 169, 228-29) The tradition is still alive today with many of the 18th Central Committee members elected in November 2012 coming “from localities” and “all seven of the Politburo Standing Committee members hav[ing] served in multiple localities” (Steven W. Lewis, “Natural Gas in the People’s Republic of China,” Belfer Center, Harvard University (October 29, 2013), 19).

1970s, center – province symbiosis was evident in the “synthesis of the ‘open door’ [initiated by the central government] and ‘self-reliance’ [promoted at the local level].”²⁴⁵ In the 1980s, it was expressed in the dual strategy of “walking on two legs” of development and conservation.²⁴⁶ Thus, provincial governments have become additional “centers of power, institution building and economic development,”²⁴⁷ which contribute to the proliferation of policy actors and policy arena heterogeneity.

Second, each province²⁴⁸ has a government structure that “mirrors the center.”²⁴⁹ Rivalry for resources between central and provincial stakeholders is commonplace, and bargaining practices are pervasive because “both Center and province command resources that the other needs, with the balance-of-power between the two in the Center’s favour.”²⁵⁰ Oil and gas proved an “important source of leverage and a resource each [side] is willing to pay a premium to obtain from the other.”²⁵¹ This has been demonstrated multiple times by the bargaining process between the central government and Guangdong province in exploration and development of South China Sea resources, the growing presence of provincial governments in the refining industry,²⁵² as well as the increasing legal, financial and technological role of well-

²⁴⁵ Keith, *Ibid.*, 64-65.

²⁴⁶ *Ibid.*, 47.

²⁴⁷ Andrews-Speed, *The governance of energy in China*, 124.

²⁴⁸ For convenience, “province” means provincial level governance, including municipalities, autonomous regions, and special administrative regions.

²⁴⁹ Lieberthal and Oksenberg, *Ibid.*, 340-2, 350-2. The central government and its multiple bureaucracies would not be able to effectively reach out to a country of 1.36 billion people (CPIRC, “China Population Information Network.”) who are spread out through 22 provinces, five autonomous regions, four municipalities (Historically, the number of direct-controlled municipalities fluctuated significantly: from 11 in 1927, to 12 in 1949, to 3 in 1954, and 4 in 1997. As of 2014, there are four direct-controlled municipalities in the PRC: Beijing, Tianjin, Shanghai, and Chongqing. They enjoy the same rank as provinces), and two special administrative regions without provincial level policy actors.

²⁵⁰ Lieberthal and Oksenberg, *Ibid.*, 339, 349-50; Kong, *An Anatomy of China’s Energy Insecurity*, 22; Christian Constantin, “Understanding China’s Energy Security,” *World Political Science* 3, no. 3 (2007), 4. The provinces’ strength lies in direct access to land, people, local governments, as well as investment contributions to projects of national significance through local capital mobilization (Lieberthal and Oksenberg, *Ibid.*, 349-350; Keith, *Ibid.*, 47). The Center competes with provinces for resources, manages competition for resources between the provinces, appoints loyal key provincial leaders, runs the central propaganda apparatus, controls provincial foreign currency accounts in the centralized Bank of China, and allocates electricity, petroleum, coal and other vital resources.

²⁵¹ Lieberthal and Oksenberg, *Ibid.*, 353.

²⁵² Until the 1990s refining industry was financed exclusively by the Center (Dorian, *Ibid.*, 225; Haijiang Henry Wang, *China’s oil industry & market* (New York: Elsevier, 1999), 117-8).

developed provinces in the development of unconventional gas resources in China.²⁵³

The central government is supportive of provinces' participation in such projects, but depending on conditions of specific agreements, it expects to receive its share of benefits including profits, taxes, and in-kind production.

Third, provincial and local governments share policy-making space with the representatives of almost all central level commissions and ministries. Provincial level bureaucracies are in charge of continuous sectoral planning originating from their superiors in Beijing, but experience tensions exacerbated by "vague directives" from the Center resulting in "poorly delineated jurisdictions" and ambiguity.²⁵⁴

However, the role of provincial level bureaucracies and later provincial state-owned enterprises (SOEs) in the oil and gas sector declined overtime. If until the late 1980s, the MPI was highly centralized,²⁵⁵ the 1988 reforms transferred the power and responsibilities of the central petroleum ministry to a handful of large, medium, and small SOEs.²⁵⁶ In the process of deepening decentralization, multiple levels of SOEs caused coordination problems and diminished decision-making power of ministerial-level NOCs.²⁵⁷ This resulted in a merger of all local level enterprises with the national level corporations.²⁵⁸ In the oil and gas sector, provincial and local enterprises were integrated into China National Petroleum Corporation (CNPC) and China Petroleum

²⁵³ Lewis, *Ibid.*, 6. In shale gas regions, local governments willing to bypass central government and tedious bureaucratic procedures are "mobilizing senior cadres," putting together "shale gas economic development leadership small groups," and are participating in projects as "full partners" (Lewis, *Ibid.*, 12-3, 23). Provinces also have an important legal role, as local laws and regulations are a part of a larger fragmented legal system governing China's oil and gas sector (International Energy Agency, "Developing China's Natural Gas Market: The Energy Policy Challenges," 83-4).

²⁵⁴ The evidence is inconclusive on whether "looseness of the system" is a miscalculation or an intentional move on the central government's part. Some argue that it may well be "a deliberate tactic of the Center to build a broad coalition in support of its policies" (Lieberthal and Oksenberg, *Ibid.*, 339-40, 343).

²⁵⁵ Before the 1980s "the highly centralized MPI [led] its oil fields directly, and its provincial level agencies [did] not appear to be important actors" in its local operations. In the mid-1980s, MPI remained a very centralized bureaucracy with the "local petroleum enterprises operating as direct extension of their line ministries" (Lieberthal and Oksenberg, *Ibid.*, 343).

²⁵⁶ Kong, *China's international petroleum policy*, 1-2; Keith, *Ibid.*, 49.

²⁵⁷ Dorian, *Ibid.*, 118; Jin Zhang, *Catch-up and competitiveness in China: the case of large firms in the oil industry* (London: Routledge, 2004), 6.

²⁵⁸ Lieberthal and Oksenberg, *Ibid.*, 344.

& Chemical Corporation (Sinopec) in 1998.²⁵⁹ Since then all management power over subordinate units is concentrated in the hands of central-level NOCs.

Finally, peripheral policy actors participate in the “identification of problems and the elaboration of solutions.”²⁶⁰ Research arms of the State Council, ministries, NOCs and other government actors “shape the perceptions of the central leadership” through the findings of their studies and through input at the leadership’s request.²⁶¹ The majority of public and private companies, including domestic and foreign ones, remain minor policy players. Nevertheless, they have been gaining importance in recent years coinciding with the gradual liberalization of China’s oil and gas sector.

Maneuvering in this increasingly heterogeneous policy arena²⁶² are the securitizing actors. From the early years of the Communist regime, the Ministry of Petroleum Industry (MPI) and its successors proved extremely influential in the management of O&G supply chains up to 1983. Also, major NOCs created using the MPI’s assets have enjoyed an influential position in the policy arena since the 1990s. The establishment of major NOCs including China National Offshore Oil Corporation (CNOOC), Sinopec and CNPC signified the beginning of the NOC-centered management of oil and gas supply chains. Due to their prevalent position in the process of securitization, the MPI and the NOCs are analyzed in detail as securitizing actors below, as components of the institutional arrangement (See Section 4.2.3.1) and as the O&G sector participants (only NOCs; See Section 4.2.3.2).

²⁵⁹ Dorian, *Ibid.*, 118; International Energy Agency, *Ibid.*, 295.

²⁶⁰ He Li, “The Role of Think Tanks in Chinese Foreign Policy,” *Problems of Post-Communism* 49, no. 2 (2002), 33-43. Barry Naughton, “China’s Economic Think Tanks: Their Changing Role in the 1990s,” *China Quarterly*, no. 171 (2002): 625-35. Constantin, *Ibid.*

²⁶¹ Kong, *China’s international petroleum policy*, 48-51. However, NOCs’ research institutes are “guided and funded by the Chinese authorities,” which inevitably influence the direction of their research (Meidan et al., *Ibid.*, 596).

²⁶² The number of policy actors increased from roughly ten in 1954 – 1978 to above twenty in 2008 – 2015 (See Appendix 3).

Securitization of Oil Supply Chains (1950s – 2015)

The petroleum group of the MPI took advantage of an existing consensus on a threat and pushed for domestic development of oil supplies. The widely accepted threat was China's inability to control its oil supplies, which were vital for the state's developmental agenda in the conditions of international isolation after 1949. Since the threat was accepted by the CCP and the government on the central, provincial and local levels, all actors involved were willing to compromise their beliefs and share resources. For instance, the CCP's self-reliance concept was put to work, and Mao Zedong allowed for expansion of the petroleum group's authority in the oil and gas sector and beyond.²⁶³ Even though the Party was looking to increase its power, while the MPI was concerned with rising above other ministries in the management of energy resources, an open policy window identified by the petroleum group allowed it to initiate the securitization process.

The success of the petroleum group was conditioned by a combination of at least three major factors. First, the group persuaded the Communist Party leadership that the development of Daqing oil field was necessary "in a way that appeared to conform to the ideological predispositions of the preeminent leader Mao Zedong."²⁶⁴ The group was able to pursue its objectives as fully compatible with Mao's deep core beliefs, while, at the same time, changing the leadership's secondary beliefs and eventually policy core beliefs. Second, despite clear success of Daqing, the petroleum group had to continue "configuring their accomplishments to accord with Mao's vision."²⁶⁵ Through compliance with the demands and visions of a more powerful policy actor, the petroleum group was able to nurture its own resources to be used later with less opposition from the Party leadership. Third, events external to the policy arena aided the success of the petroleum group. In the 1960s, compared with

²⁶³ Keith, *Ibid.*, 23; Lieberthal and Oksenberg, *Ibid.*, 169.

²⁶⁴ Lieberthal and Oksenberg, *Ibid.*, 172-3.

²⁶⁵ For instance, the role of technical expertise was purposefully understated, while the role of ideology, motivation, and organizational factors was exaggerated (Lieberthal and Oksenberg, *Ibid.*, 180-1).

coal, performance of the petroleum sector was exemplary, and Mao paid close attention to the petroleum group as a potential pool of future national leaders.²⁶⁶ Additionally, deteriorating Sino-Soviet relations²⁶⁷ and growing American presence in Vietnam²⁶⁸ triggered continued prioritization of self-reliance and further development of the petroleum industry.

Nevertheless, it has not always been smooth sailing for the petroleum group. By the late 1960s, the idea of foreign technology and equipment imports vigorously promoted by petroleum group was stalled by a combination of new domestic and foreign events – Cultural Revolution and Vietnam War. Additionally, the emergence of radical opposition – the Gang of Four – was the first sign of heterogeneity in an otherwise homogenous policy arena.²⁶⁹

By the mid-1980s, the country entered the period of transition from the ministry-dominated decision-making and implementation to an SOE reliant system. At the same time, surging oil demand and flattening domestic oil production were a source of concern in the policy-making community and once again reignited the perception of threatened oil supply chains. In these conditions, three major NOCs – Sinopec, CNPC, and CNOOC – became drivers of the securitization process. Headed by former petroleum bureaucrats,²⁷⁰ the NOCs were entrusted with the reigns of cooperation with foreign firms²⁷¹ and expected to combine commercial²⁷² and public policy objectives.

²⁶⁶ Lieberthal and Oksenberg, *Ibid.*, 183-4.

²⁶⁷ Woodard, *Ibid.*, 25-6; 54-7; Keith, *Ibid.*, 4.

²⁶⁸ Lieberthal and Oksenberg, *Ibid.*, 186.

²⁶⁹ But this time it lacked resources to achieve its objectives, and members of the faction were arrested in October 1976. Even Mao's death in September 1976 did not trigger political turbulence because the decentralization course endorsed by the supreme leader in the Fourth Five-Year Plan and successors appointed to key government posts in the early 1970s had enough time to strongly root into the policy arena and the institutional environment.

²⁷⁰ Kong, *China's international petroleum policy*, 42-3.

²⁷¹ Woodard, *Ibid.*, 81.

²⁷² assuming "full responsibility for their own profits and losses" (Dorian, *Ibid.*, 114; Zhang, *Ibid.*, 5-6)

NOCs of the 1980s – 1990s represented a type of securitizing actor different from the petroleum group of the 1960s – 1970s. Unlike the petroleum group that assumed the role of a policy entrepreneur, NOCs, as a composite actor, fit the description of a policy broker. First, compared with the 1960s – 1970s, the number of participants in the oil and gas policy arena increased three-fold (See Appendix 3) and thus required more time and resources in building common beliefs and aligning goals. This is best reflected in the “going out” strategy, which was embraced by the NOCs almost a decade earlier than it was officially approved by the Chinese state.²⁷³ The perception of threatened oil supply chains existed since the 1980s, but it was not as coherent as in the 1960s. It took NOCs some time to build a perception of a common goal between policy stakeholders. The starting point of this process can be identified as the expression of interest by NOCs to invest abroad. The goal was finally achieved in the late 1990s when the government approved the “going out” strategy as a broader industrial initiative and offered its full support.²⁷⁴ The lag of almost a decade is illustrative of the time necessary for the securitizing actor to negotiate multiple agreements. Second, it is likely that China’s switch to an oil importer status in 1993 aided the NOCs in persuading the government to pay more attention to overseas oil assets.

By the early 2000s, collectively, NOCs looked increasingly like a dominant decision-maker inside the policy arena rather than a policy broker. They consolidated enough power to be able to use securitized oil supply chains to their advantage. Transformed into vertically integrated regional majors,²⁷⁵ CNPC and Sinopec were now fully responsible for financing their operations, setting production targets, and determining hiring policies and wages.²⁷⁶ They started using the concept of energy security for

²⁷³ Downs, “China,” 38-9; Kong, *China's international petroleum policy*, 44.

²⁷⁴ Downs, “China,” 7.

²⁷⁵ International Energy Agency, “Developing China’s Natural Gas Market: The Energy Policy Challenges,” 82; Andrews-Speed et al. (2000), 14.

²⁷⁶ Wang, *Ibid.*, 9.

paying a premium for their assets in overseas ventures,²⁷⁷ engaged in competition over foreign assets which also resulted in overpaying and overlooked some of the government's demands for compliance. For example, NOCs finalized their investment and cooperation decisions abroad prior to receiving approval from the NDRC.²⁷⁸

Once again, similar to the petroleum group, the NOCs today are challenged by changes in and outside the policy arena. International events around the war in Iraq and wide-spread domestic electricity shortages of 2003-2004 triggered a more concerted effort among central government elite representatives not seen since 1993 to create a centralized energy planning apparatus. Two relatively weak, yet centralized bodies - The National Energy Bureau under NDRC and Energy Leading Small Group headed by the Premier – were established.²⁷⁹ The central government also endorsed private investments in oil and gas in early 2005, but NOCs vigorously opposed and successfully blocked this initiative.²⁸⁰ The taxation regime was modified in 2011,²⁸¹ and private and state-owned companies beyond the leading NOCs have received crude oil import licenses in 2014-2015 (See Section 4.2.3.1). All of these efforts illustrate policy monopoly fragmentation through intentional redesign of the policy arena and dispersion of NOCs' power among a larger number of actors by the central government.

²⁷⁷ Downs, "China," 39.

²⁷⁸ Ibid., 24.

²⁷⁹ Kong, *An Anatomy of China's Energy Insecurity*, 44-5; Downs, "China," 6, 16, 19-21, 48; Meidan et al., 595-6.

²⁸⁰ Kong (2006), p. 84.

²⁸¹ Wang, Ibid., 10-1, 65. "China Kicks off National Resource Tax Reform," China Briefing (October 13, 2011). KPMG, *China Alert: More Complicated Approval Process for Clean Development* (October 2011).

Securitization Potential for Natural Gas Supply Chains (2009 – 2015)

The large-scale development of gas resources did not begin until the early 2000s, and since the share of natural gas in the national energy mix stands only at about 5%,²⁸² it is too early to talk about gas as a security issue in the context of China's oil and gas industry or the Chinese economy as a whole.

Conditions surrounding China's pursuit for gas are very different from the ones around supplying oil in the 1960s – 2000s. Unlike with oil, there is no fear of not being able to afford gas as it was with oil in the 1970s – 1980s. Also, China as a state and society is at a different development level today, and increase in natural gas consumption is a conscious choice rather than a desperate necessity.

Nevertheless, in the situation of limited indigenous gas resources, China's consumption²⁸³ and its import dependency rate²⁸⁴ are growing exponentially (See Figure 4.3 and Figure 4.4). Signs of a threatened gas supply started to appear by 2009. Localized and wide-spread short-term shortages of natural gas supply in 2009 – 2015 have been associated with adverse weather conditions,²⁸⁵ decreased coal consumption,²⁸⁶ and technical problems²⁸⁷.

²⁸² In 2000 – 2008, natural gas accounted for roughly 2% of China's overall primary energy consumption (Mikkal Herberg, "The Geopolitics of China's LNG Development," in *China's energy strategy: the impact on Beijing's maritime policies*, ed., Gabriel B. Collins (Annapolis, MD: Naval Institute Press, 2008), 62).

²⁸³ A net exporter of gas until 2007, China consumed an average of 30 bcm of natural gas per year between 1990 and 2007. In 2008 – 2013, its average annual consumption of gas reached 124 bcm, and it is expected to reach anywhere between 262 bcm and 420 bcm by 2020.

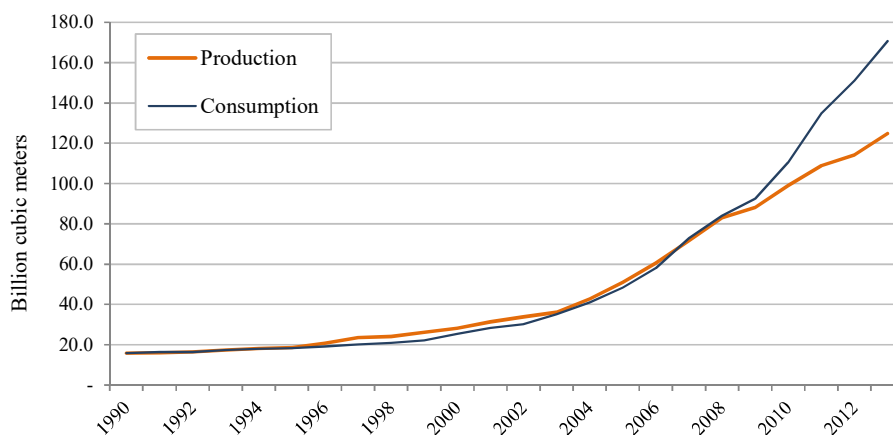
²⁸⁴ Import dependency rate is currently at 32%. According to various estimates, it is expected to grow from 32% - 57% in 2020 to 53% - 84% in 2030. Gas imports will remain almost equally divided between LNG shipments and pipeline gas supplies in 2020.

²⁸⁵ In 2009, there was a nationwide gas shortage associated with an unusually cold winter (Gabe Collins and Andrew Erickson, "China Natural Gas Shortage Poised to Drive Record LNG Imports," *China SignPost* (December 8, 2013)). A similar situation took place in the fall and winter of 2013-2014 (David Stanway, "China cuts gas supply to industry as shortages hit," *Reuters* (November 6, 2013)).

²⁸⁶ In 2011, gas shortage "occurred in a few areas in Shandong and Hunan; in 2012, it spread to some areas in more than 10 provinces including Beijing, Hubei, Zhejiang, Jiangsu and Inner Mongolia" (Zhang Kang, "Natural gas supply-demand situation and prospect in China," *Natural Gas Industry B* 1, no. 1 (2014): 103-12).

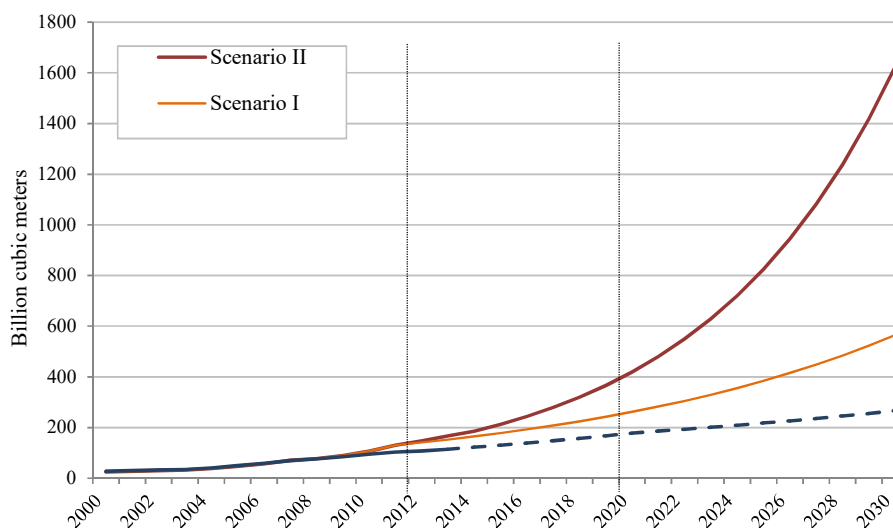
²⁸⁷ In December 2015, "natural gas supply in North China saw a temporary shortage... CNPC met difficulties in unloading the imported LNG in ports, causing a temporary shortage of natural gas supply in North China" (Lan Lan, "North China encounters gas supply shortage," *China Daily Europe* (December 28, 2015)).

Figure 4.3: Natural Gas Production and Consumption in the PRC (1990 – 2013)



Data Source: BP, *Statistical Review of World Energy*.

Figure 4.4: China's Natural Gas Consumption Projections (2000 – 2030)



Notes: ¹ Data source for 2000-2011 and 2012 (Scenario I) is US EIA.

² Data source for 2012 (Scenario II), and 2013 and 2014 estimates is CNPC Economic and Technology Research Institute (June 2012).

³ *Scenario I* is based on the CNPC's projections of China's natural gas consumption to rise by 8% annually between 2011 and 2030.

⁴ *Scenario II* is based on the Chinese government's statement from April 23, 2014 discussing an increase of China's natural gas supply to 420 bcm/year by 2020.

⁵ *Domestic Production* after 2013 is a rough estimate based on IEA's estimates of China's domestic gas production reaching 178 bcm in 2020, and 266 bcm by 2030.

As China becomes more dependent on gas, the government and NOCs are putting forward measures for securing gas supply chains. If policy actors succeed in creating a perception of secure gas supplies through expansion of infrastructure, attainment of assets overseas, and signing of a variety of delivery contracts while limited demand and low gas prices persist, securitization of gas supply chains is unlikely to take off. Moreover, NOCs more than anyone else are interested in demonstrating secure rather than securitized gas supply chains because the latter would signify their failure to manage supply chains effectively. In the current conditions of gas supply chains increasingly perceived as more threatened than before NOCs should ensure their security. Otherwise, they risk losing their power to emerging players – private O&G companies – in an increasingly heterogeneous policy arena and the gas sector.

4.2.2.3 Summary

This section outlined relationships between securitizing actors and other policy stakeholders involved in the O&G policy-making process. It has also separated securitization process within oil supply chains and gas supply chains to highlight the differences between the two and distinctive features of each.

The analysis reveals five key characteristics of the policy arena governing China's oil and gas supply chains. To begin with, its boundaries have expanded over time to include a growing number of actors. Despite increased heterogeneity and expanded borders, the entry into the policy arena is under tight control of its existing participants and institutional jurisdiction, and there have been no instances of policy arena infiltration by outside policy entrepreneurs. Also, the policy arena governing oil supply chains has seen the rise of three different types of securitizing actors: policy entrepreneur (the petroleum group in the 1950s – 1970s), policy broker (NOCs in the 1980s – 1990s) and dominant decision-maker (NOCs since the early 2000s). All of the above securitizing actors emerged from among the central level policy actors.

Finally, the analysis demonstrates that one type of securitizing actor can evolve into another.

4.2.3 Type III Inputs: Institutions – Referent Object Link

4.2.3.1 Oil and Gas Supply Chains Institutions Decomposed

Type I inputs from embedded institutions and the institutional environment and Type II inputs from the policy arena explored in the previous sections affect the referent object's performance by influencing the institutional arrangement where Type III inputs – represented by the policy framework, legal framework, and administrative arrangements – are generated (See Figure 4.5).

In the context of oil supply chains' securitization, out of the three components of the institutional arrangement, policy actors used to prioritize changes in the administrative arrangements over the legal and policy frameworks as the major instrument of control over the O&G sector. This was until the policy shift towards accepting foreign participation in the upstream in the late 1970s, which required the development of an appropriate legal base. Additionally, in terms of policy direction, the O&G sector was originally following the overall objectives of the national economic development, whereas since the 1990s, narrower policies directed at conventional and unconventional oil and gas resources have been put forward.

While oil and gas are governed by the same actors and share the same legal base, policies of the last decade demonstrate that gas is gradually branching out into an independent sector with its own legal and policy guidelines. Gas supply chains as a referent object in the securitization process are a new phenomenon. Changes in the institutional arrangement result in incremental changes in the sector's performance, and securitization of gas supply chains is yet to materialize.

Figure 4.5: Changes in the Institutional Arrangement Relevant to the Securitization of China’s O&G Supply Chains (1949 – 2015)

OIL	✓			✓	✓	✓	✓
				✓	✓		✓
	✓	✓		✓	✓	✓	✓
	1950s	1960s	1970s	1980s	1990s	2000s	2010s
GAS						✓	✓
				✓	✓		✓

Notes: “✓” signifies the presence of changes (relevant to securitization) in the components of the institutional arrangement governing oil and gas supply chains in China.

The institutional arrangement consists of the following components:

	- policy framework;
	- legal framework;
	- administrative arrangements.

1950s – 1970s: Focus on Policy Development

Historically, China’s oil and gas policy discourse prioritized measures of increasing supply over measures of curbing domestic demand.²⁸⁸ Heavy emphasis on the importance of oil supply originated in the 1950s from the lack of developed indigenous resources, which were believed to be essential for the success of China’s developmental model fuelled by strong industrial growth. In the administrative arrangements this policy focus was reflected in the MPI overtaking the Ministry of Geology’s original functions in the upstream activities, spearhead the development of the Daqing oil field – the major sought-after source of petroleum in the country – and ensure the PRC’s self-sufficiency in petroleum production. The MPI’s ability to deliver on the leadership’s expectations led to growth of MPI’s “budget and its ability to control” the oil and gas supply chains.²⁸⁹ Thus, underpinned by the pursuit of self-reliance, which maximized domestic capacity and minimized foreign involvement,

²⁸⁸ Philip Andrews-Speed, Xuanli Liao and Roland Dannreuther, “The Strategic Implications of China’s Energy Needs,” *The Adelphi Papers* 42, no. 346 (2002), 49; Downs, “China,” 2, 25-6; David Pietz, “The Past, Present, and Future of China’s Energy Sector,” in *China’s energy strategy: the impact on Beijing’s maritime policies*, ed., Gabriel B. Collins (Annapolis, MD: Naval Institute Press, 2008), 50.

²⁸⁹ Tatsu Kambara and Christopher Howe, *China and the Global Energy Crisis: Development and Prospects for China’s Oil and Natural Gas* (Cheltenham, UK: Edward Elgar, 2007), 25.

and aided by the Soviet expertise,²⁹⁰ the initial focus on oil supply laid the foundation for a highly centralized hierarchical structure of policy-making in China's oil and gas sector.

After the break with the Soviet Union, reinforced focus on oil supplies was justified by domestic energy crisis and fuel shortages experienced by the PLA.²⁹¹ As a result, policies of the early 1960s ensured that development of the Daqing oil field was sped up. Overall, in the 1950s – 1970s, “China's oil industry developed in the fashion of military ‘massive campaigns’ (*da hui zhan*).”²⁹² During this time, the MPI was solely responsible for designing and implementing these campaigns. The status of the ministry as a strong actor in the policy-making process of a highly centralized command-and-control environment was also illustrated by its ability to successfully initiate international technological exchanges with Japan and France in the mid-1960s.²⁹³ Hence, the ministry acquired a range of duties along the oil and gas supply chain, from coordinating exploration and production to ensuring proper transportation and marketing. It also expanded its reach well beyond the central policy-making apparatus and into the provinces, being in charge of negotiating investment funding and allocating it to the subordinate Petroleum Administration Bureau (PAB).²⁹⁴

The evidence of working policies came from China's self-sufficiency in energy commodities achieved between 1963 and 1973,²⁹⁵ (See Figure 4.6) and small exports contributing to the country's foreign currency reserves. By 1973 China reached the status of a net energy exporter with crude oil and oil products now delivered to Hong Kong, Japan, Thailand, and the Philippines. As a result, the 1973 oil crisis did not

²⁹⁰ The need to develop domestic natural resources created a favorable environment for China's cooperation with the Soviet Union and Eastern Bloc countries. Not only did Soviet expertise improve China's technical capabilities, it also left a sizeable imprint on the future direction of the oil and gas sector “which took a turn toward large-scale, centrally funded projects” (Woodard, *Ibid.*, 32).

²⁹¹ Woodard, *Ibid.*, 25-6; Lieberthal and Oksenberg, *Ibid.*, 172. It is possible that security concerns outweighed economic problems. The Chinese leadership and the military perceived threats from multiple sources: the Soviet Union, Taiwan, and India (Lieberthal and Oksenberg, *Ibid.*, 172).

²⁹² Zhang, *Ibid.*, 5-6.

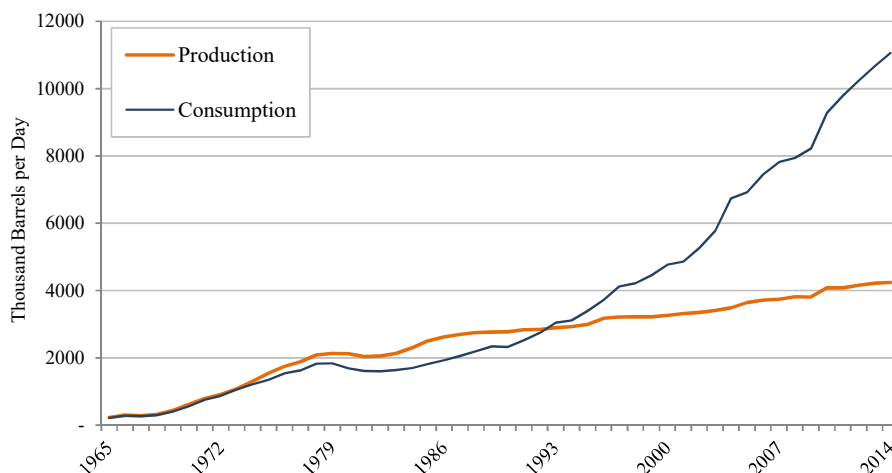
²⁹³ Lieberthal and Oksenberg, *Ibid.*, 194-5.

²⁹⁴ Zhang, *Ibid.*, 6.

²⁹⁵ Woodard, *Ibid.*, 222.

have a major negative impact on the Chinese oil and gas sector or the economy as a whole.

Figure 4.6: Crude Oil Production and Consumption in the PRC (1965 – 2014)



Data Source: BP, *Statistical Review of World Energy*.

1979 Policy Shift and Legal Framework Expansion

The 1979 decision to permit foreign equity is generally seen as a turning point in China’s oil and gas policy. But the process leading up to this decision was the result of a series of incremental steps taken over the course of more than 10 years.²⁹⁶ Also, this policy shift was deeper than a change at the policy arena or the institutional arrangement level.²⁹⁷ On the one hand, preparatory work took a long time because it needed unconditional support of country’s leaders in order to succeed. On the other hand, the changes in policy transformed the understanding of self-reliance, which has historical significance and is linked to embedded institutions and CCP’s ideology.

²⁹⁶ Although the tense political situation of the Cultural Revolution did not allow the idea of expanded foreign cooperation to officially enter China’s policy agenda until 1979, the network of contacts between Chinese oil and gas experts and the outside world started to emerge in the 1960s. Small Chinese delegations participated in international exhibitions as early as 1963 – 1964 and technological exchanges with Japan and France in 1964 – 1967.

²⁹⁷ It involved changes in all three institutional components: policy framework (shift towards foreign cooperation and permission to create Sino-Foreign joint ventures), legal framework (relevant laws and regulations for onshore and offshore resources), and administrative arrangement (decreased power of MPI, establishment of first NOCs).

In preparation for the bold policy shift the country's leadership was by no means united on the country's future direction²⁹⁸, but the petroleum group of the MPI was able to offer consensus-building solutions and continued to lead the oil and gas industry and the national economy. Suggested solutions of imports financing through oil exports and accelerated oil field development through opening-up found support virtually from all sides of the debate on the future of China's development.²⁹⁹ The biggest, previously unthinkable, policy break-through materialized despite the top leaders' disagreements on overall development strategy and became "an interesting instance of coalition building in Chinese politics, where... leaders can agree on a bold departure in policy for different reasons."³⁰⁰ Those who supported opening-up and increased foreign involvement cited, first and foremost, economic benefits of joint ventures for the development of China's domestic resources: enhancement of security of supply, "minimized Chinese financial obligations," and "maximum technology transfer."³⁰¹

The policy change of 1979 would not be possible without the development of a previously non-existent legal framework governing oil and gas supply chains. The first legal guidelines designed in 1979 – 1983 were forced by new economic realities of peaking oil production in the Daqing field and an urgent need to find and develop new oil fields.³⁰² They were drafted during negotiations of the model contract³⁰³ between local and foreign companies in joint ventures in order to maintain resource sovereignty in the presence of foreigners. The model contract was more significant than the vague Law on Sino-Foreign Equity Joint Venture Companies (1979)³⁰⁴

²⁹⁸ Lieberthal and Oksenberg, *Ibid.*, 206.

²⁹⁹ *Ibid.*, 207.

³⁰⁰ *Ibid.*, 227-28.

³⁰¹ Lieberthal and Oksenberg, *Ibid.*, 227-228.

³⁰² *Ibid.*

³⁰³ The contract applied to all foreign companies doing business in China, was 30 years long and was divided into three phases corresponding to exploration, development, and production (Lieberthal and Oksenberg, *Ibid.*, 241).

³⁰⁴ In addition to the 1979 law regulating foreign investment in an equity joint venture, similar laws were passed with regards to two other forms of foreign participation allowed in Chinese oil and gas sector. One was the Law on Wholly Foreign-funded Enterprises (1986) and accompanying rules for its

which “left the foreign investment community devoid of any real certainty in its investment in China.”³⁰⁵ It became the foundation of the Chinese hybrid model and has not lost its relevance to this day.³⁰⁶

Legislation for offshore resources management was developed around the same time as the model contract, as it also involved foreign participation due to the lack of “technology and equipment needed to develop offshore petroleum reserves.”³⁰⁷ Regulations of the PRC on the Exploitation of Offshore Petroleum Resources in Cooperation with Foreign Enterprises (1982) entered into force, and China National Offshore Oil Company (CNOOC) – one of the first future major national oil companies (NOCs) – created during the same year obtained the responsibility for contract negotiation with foreign oil companies.

A more comprehensive law on mineral and energy resources and their exploitation, the Mineral Resources Law of the PRC (1986), was enacted a few years later. It states that exploitation of resources by any authorized entity does not alter “state ownership of mineral resources.”³⁰⁸ The law serves the purpose of “developing the mining industry, promoting the exploration, development, utilization and protection of mineral resources”³⁰⁹ for the benefit “of the socialist modernization programme.”³¹⁰ It contains provisions for the payment of “resource tax and resource compensation”³¹¹

implementation (1990) and the other was the Law on Sino-Foreign Cooperative Joint Venture Companies (1988) followed by Regulations on its implementation (1995). Both laws were revised in 2000. According to the regulations on the implementation of both laws, the Ministry of Commerce (MOFCOM) examines applications for and approves wholly foreign-owned enterprises (Ministry of Commerce of the People’s Republic of China, *Detailed Rules for the Implementation of the Law on Wholly Foreign-Owned Enterprises* (1990)) and cooperative joint ventures (Ministry of Commerce of the People’s Republic of China, *Detailed Rules for the Implementation of the Law on Sino-Foreign Cooperative Joint Ventures* (1995)).

³⁰⁵ Barbara Campbell Potter, “China’s equity joint venture law: a standing invitation to the West for foreign investment?” *University of Pennsylvania Journal of International Business Law* 14, no. 1 (1993), 14. Even though the Regulations to the JV Law (1983) clarified some controversial points of the law and expanded the avenues for dispute resolution, the law did not improve much until the substantive amendments were passed in 1990.

³⁰⁶ Lieberthal and Oksenberg, *Ibid.*, 230-1.

³⁰⁷ *Ibid.*, 194.

³⁰⁸ Government of China, *Mineral Resources Law of the People’s Republic of China* (1986), Article 3.

³⁰⁹ *Ibid.*, Article 1.

³¹⁰ *Ibid.*, Article 1.

³¹¹ *Ibid.*, Article 5.

and takes into consideration environmental protection measures, such as diligent reporting and prevention of pollution.³¹² Rules for Implementation of the Mineral Resources Law of the PRC (1994) promulgated a few years later, emphasized once again that “all mineral resources shall be owned by the state,”³¹³ and gave the right of interpreting these rules to the then Ministry of Geology and Mineral Resources³¹⁴ (Ministry of Land and Resources (MLR) since 1998).

Administrative Reforms of the 1980s

In the 1980s, China remained wary of the international market’s influence on its domestic oil and gas sector. In addition to expanding the legal framework which specified the roles of the state, the domestic bureaucracy and foreign participants, Chinese leaders implemented measures to control the price dimension of energy supply security in order to ensure dominance of domestic government over external political and economic forces. Strict policies ensured that the government was in charge of O&G prices and volumes of imported crude oil at all times. These measures corresponded with major changes in the administrative arrangements – the end of the ministerial era and the beginning of the NOC era.

The end of the ministerial era is associated with the termination of the MPI in 1988, when responsibilities of the ministry along with those of other energy resources ministries were transferred to the new overarching Ministry of Energy, and the abolition of the latter only a few years later in 1993. However, the demise of the petroleum group and the MPI on the national economic scene started before 1988 and “coincided with a period of major reorganization of the government bureaucracy” in 1979 – 1983.³¹⁵ It is explained not by the developments inside oil and gas industry management, but rather by “a massive effort to remove the petroleum group from the

³¹² Ibid., Articles 21 and 32.

³¹³ Ministry of Land and Resources of the People’s Republic of China, *Rules for Implementation of the Mineral Resources Law of the People’s Republic of China* (1994), Article 3.

³¹⁴ Ibid., Article 45.

³¹⁵ Lieberthal and Oksenberg, *Ibid.*, 254-5.

commanding heights of the economic bureaucracies.”³¹⁶ MPI’s power gradually declined despite attempts to restore it.³¹⁷ By 1982, the MPI relinquished its responsibilities for negotiation of contracts with foreign oil companies to its subordinate organization, China National Oil and Gas Exploration and Development Corporation (CNODC). CNODC was the first in line of soon to mushroom oil and gas ‘corporations’, which would first be nurtured under the powerful wing of MPI and obtain independence by the late-1980s. The power of these corporations would also be, in part, responsible for the failure of the Ministry of Energy (1988 – 1993) to “gain control over the energy sector”³¹⁸ in the wake of government recentralization and a Three-Year Austerity Programme (1988 – 1991).³¹⁹

Responsibilities of the MPI and other energy-related ministries were removed incrementally, allowing for a smooth organizational transition from ministries to SOEs. Major national oil companies (NOCs) were established as part of corporatization drive in different years between 1982 and 1988, using MPI assets: China National Offshore Oil Company (CNOOC) in 1982, China Petrochemical Corporation (Sinopec) in 1983³²⁰, and China National Petroleum Corporation (CNPC) in 1988.

1990s: Security of Supply and Growing Role of Natural Gas

The remainders of MPI and ministries in charge of other fossil fuels and chemical industry were merged into the Ministry of Energy (MOE). By 1993, the last bits of the MOE’s powers in the oil and gas sector were redistributed between the NDRC, SETC, and NOCs. The abolition of the MOE signified the end of the ministerial era,

³¹⁶ Ibid., 252-3.

³¹⁷ In spring 1979, Finance and Economic Committee (FEC) was established, which created competition to the State Planning Commission, one of the MPI’s allies. A year later FEC was abolished and replaced with the Finance and Economics Leading Small Group led by the representatives of petroleum group. In August 1980, State Energy Commission was established under the leadership of the same individuals, but it “failed to provide coherence and coordination to energy policy” resulting in its abolition in May 1982 (Lieberthal and Oksenberg, Ibid., 252-4).

³¹⁸ Downs, “China,” 17-18; Dorian, Ibid., 114.

³¹⁹ Dorian, Ibid., 75, 80.

³²⁰ Zhang, Ibid., 5; Downs, “China,” 21-4; Wang, Ibid., 117-8, 127.

and the rise of the NOC-centered management of oil and gas supply chains. Serving the central objective of national energy self-sufficiency, NOCs were designed as novel instruments for achieving security of supply: addressing new challenges of acquiring foreign technology, developing industry expertise, cooperating with foreign companies in China, and streamlining both processes through separation of policy-making and operations.³²¹

Overall, throughout the 1990s, three significant processes and events in the institutional arrangement took place: persisting misperceptions³²² about non-existent or very limited legal framework despite its continuous expansion,³²³ restructuring and strengthening of NOCs in the context of industrial policy,³²⁴ China's change of status to a net oil importer status³²⁵ (See Figure 4.6), and natural gas gaining significance as a substitute for oil.³²⁶

³²¹ Dorian, *Ibid.*, 114; Downs, "China," 6, 21-4; Downs, "China's "New" Energy Administration," 42-3.

³²² Dorian, *Ibid.*, 238.

³²³ By early 1998, the State Council enforced over 30 administrative laws, regulations and documents pertaining to the mineral industry. International Business Publications, USA, *China mining laws and regulations handbook*, Vol. 1, Strategic and Legal Information (Washington, D.C.: International Business Publications, USA, 2012), 46. In oil and gas, other relevant nation-wide laws and regulations include: Regulations for oil and gas pipeline protection (1989), Measures for Registration Administration of Exploration Blocks of Mineral Resources (1998), Regulation for Registering To Explore for Mineral Resources Using the Block System (1998), which replaced Interim Measures on Registration for Mineral Exploration (1987), and Interim Measures on Registration for the Exploration and Mining of Petroleum and Gas (1987), Measures for the Registration Administration of Mineral Resources Exploitation (1998), and Measures for the Administration of Transfer of Mineral Exploration Right and Mining Right (1998). Despite the fact that the laws and rules on their implementation did exist, lack of clarity remained a serious issue. In addition to laws implemented on the national level, local governments of provinces, autonomous regions and municipalities enforced laws and regulations. Overall, this body of laws provided satisfactory conditions for foreign investors and legalized the dominance of NOCs.

³²⁴ NOCs continued to advance the concept of self-reliance. But as 'companies' they had an additional task of profit generation. Consequently, all major oil and gas policies of the 1990s culminating in the 1998 SOE reform were devoted to strengthening NOCs' performance and demarcating supply chain boundaries between them to avoid inefficiencies of competition in a centralized state-controlled environment.

³²⁵ Domestic resources were able to satisfy domestic demand. In 1993, oil consumption outpaced domestic oil production, and domestic resources were no longer able to satisfy the demand. Domestic production growth has since been incremental with a modest average annual increase of 1.9% in 1995 – 2014 (BP, Statistical Review). The government did not anticipate that the country would become a net oil importer in 1993. First, 1993 was the year of oil sector liberalization, which worsened inflation and caused chaos in the oil market, mainly because rapid loosening up was not supported by a proper legal system. Second, in 1993, the Ministry of Energy – the major coordinating body of national energy policy was abolished. Although SETC was established in the same year to take over the ministry's functions, it lacked the power to implement its duties and had to withstand competition with NDRC (despite the fact that nominally their functions were not overlapping).

³²⁶ China turned to more active natural gas exploration in the late 1990s. In March 2001, at the Fourth Plenary Session of the 9th National People's Congress Zhu Rongji stressed the importance of putting gas

This is when security of supply gained extra importance, and NOCs, which were seen as the leading mechanism for ensuring success of oil and gas policies, were put in charge of attaining necessary supply targets. For instance, the Regulations Concerning the Exploitation of Onshore Petroleum Resources in Cooperation with Foreign Enterprises (1993)³²⁷ gave CNPC a unique right to cooperate with foreign enterprises in onshore oil exploitation.³²⁸ These regulations also divided administrative powers between MOFCOM,³²⁹ MOF,³³⁰ and the State Council.³³¹

2000s: Energy Security, Administrative Changes, New Policies and Regulations

In the aftermath of China's transition to a net importer of oil and the abolition of the Ministry of Energy, government policies of the first decade of the 21st century were largely reactive and needed time to adapt to a new reality. First, "energy security" entered the official policy-making domain only with the implementation of the Special Energy Development Plan in the framework of the 10th Five-Year Plan (2001 – 2005).³³² The arrival of the concept into the policy language can be attributed to soaring imports and dramatic increase in oil prices. Oil imports increased from 154 thousand barrels a day (b/d) in 1993 to 6,811 thousand b/d. in 2014.³³³ Second, it took China more than a decade to arrange for a viable alternative to the Ministry of Energy – coordinating body that would be in charge of national energy policy. Preceded by the National Energy Bureau (2003 - 2008) and National Energy Administration (2008 – Present), National Energy Commission was finally put together in 2010. The

"on an equal footing with petroleum" (Kong, *China's international petroleum policy*, 47). Some of the avenues for increased gas consumption included expansion of transmission pipelines and distribution networks as well as the increase in imports (Ibid.).

³²⁷ Government of China, *Regulations concerning the exploitation of on-shore petroleum resources* (October 7, 1993).

³²⁸ According to Article 7 of the regulations, CNPC "shall have an exclusive right to engage in petroleum exploration, development and production in cooperation with foreign enterprises."

³²⁹ Given the power to approve contracts (Article 8).

³³⁰ Given the power to design preferential treatment measures for lowering duties and taxes on equipment and materials for contracts (Article 12).

³³¹ Given the right to reassess MOFCOM's approval and responsible for demarcating or delegating the responsibility of demarcating cooperation blocks (Article 6).

³³² The plan introduced strategic petroleum reserves, called for increased share of natural gas in the national energy mix, and emphasized the importance of a robust regulatory system for the oil and gas sector.

³³³ BP, Statistical Review.

establishment of the NEA and NEC resulted in more concrete policies in the oil and gas sector, which remains central to the overall energy planning. In particular, the natural gas industry received a lot of attention with specific policies formulated for LNG, shale gas, and CBM.³³⁴ Also, a comprehensive nation-wide natural gas pricing reform was rolled out in 2013.³³⁵

In the context of reactive piecemeal policies in the beginning of the 21st century, the oil and gas sector did not experience any major legal changes.³³⁶ But a wave of fiscal and regulatory reforms swept over China's oil and gas landscape in 2010 – 2014. The changes include the Law of the PRC on the Protection of Oil and Natural Gas Pipelines (2010)³³⁷ and new tax regulations³³⁸ related to decentralization and growing

³³⁴ The share of unconventional natural gas resources in the overall supply is very small, but policies are being developed to increase their share until 2020 and beyond. 12 LNG receiving terminals have been built since 2006 (International Gas Union, "World LNG Report – 2014 Edition," IGU (2015), 56-8), with at least two more currently under construction. (Guangxi LNG is expected to be commissioned by the end of December 2015: Xinhua Finance Agency, "Sinopec to commission LNG terminal in S. China's Guangxi," Xinhua Finance in Beijing (November 3, 2015); completion of Shenzhen LNG is planned for 2017-2018: Xinhua Finance Agency, "CNOOC slows down building of LNG receiving terminal in Shenzhen," Xinhua Finance in Beijing (May 27, 2015)). The 12th Five-Year Programme (2011 – 2015) promotes the use of shale gas and CBM for the first time (Kang Wu, "China's energy security: Oil and gas," *Energy Policy* 73 (2014), 7). The NEA issued two policy documents important for the shale gas development: Shale Gas Development Plan (2011 – 2015) in March 2012 and First Shale Gas Industrial Policy in October 2013. In November 2012, the NEA and MOF issued a joint notice announcing a subsidy for shale gas production in 2012 – 2015. CBM development has been guided by the 12th Five-Year Coalbed Methane Development and Use Plan (2011 – 2015). According to the latest Energy Development Strategy Action Plan (2014 – 2020), shale gas and CBM production targets stand at 30 bcm per year each by 2020 (Xiang Bo, "China unveils energy strategy, targets for 2020," Xinhuanet (November 19, 2014)).

³³⁵ While the old pricing regime failed to incentivize domestic gas supply development, the reformed system has limitations as well. The major disadvantages of the new pricing regime are that it fails to address local distribution and retail issues, and favors large suppliers (Sergey Paltsev and D. Zhang, *Natural gas pricing reform in China: Getting closer to a market system?* Report no. 282, MIT Joint Program on the Science and Policy of Global Change (MIT, 2015), 24).

³³⁶ With the exception of a few additions to the legal framework like CBM specific regulations: Coalbed methane (CBM) received more attention in terms of legislation in 2000s. In 2006, MOF, General Administration of Customs (GAC) and State Administration of Customs (SAC) released a Circular on Distributing the Regulations of Exempting the Import Tariffs of Materials for the Coalbed Methane Prospecting and Exploiting (See Government of China, *Circular of Ministry of Finance, General Administration of Customs and State Administration of Customs on distributing the regulations of exempting the import tariffs of materials for the coalbed methane prospecting and exploiting*, Asian Legal Information Institute (October 25, 2006)). One year later, the NDRC, MOFCOM and MLR publicized a joint Notice on Issues Concerning Further Expanding the Cooperation with Foreign Parties in Mining Coal bed Methane (See "Notice of the Ministry of Commerce," Shanghai Nuo Di Law Firm (December 29, 2014)). Also, provisional rules for safety supervision and management of oil and gas pipelines (2000).

³³⁷ The new Law of the PRC on the Protection of Oil and Natural Gas Pipelines (2010) covers planning and construction of pipelines, protection of pipeline operations, and coordination of pipelines between separate administrative regions as well as with other local and regional infrastructure. Although the law is dedicated to onshore pipelines, Article 60 authorizes the State Council to "formulate special provisions on the protection of pipelines of offshore oil and natural gas" (Law of the PRC on Protection of Oil and Natural Gas Pipelines (2010), Article 60).

role of provincial and local governments. Additionally, until 2011, there was no differentiation between oil and gas resources in the legislation with both resources being covered by the same laws. The current decade is characterized by increased attention to shale gas as an “independent mining resource” which fell outside the category of “conventional natural gas,”³³⁹ one of the encouraged industries for foreign investment.³⁴⁰ Finally, further elimination of legal barriers to foreign participation in the sector is ongoing. For example, Sino-Foreign joint ventures can now directly participate in bidding rounds,³⁴¹ for several years (2007, 2011, 2013, and 2015) upstream oil and natural gas has been on the list of encouraged foreign investment industries,³⁴² and two State Council’s decisions – from May 2013 and February 2014 – relaxed regulations applicable to conventional and nonconventional oil and gas.³⁴³

³³⁸ New tax regulations which took precedence over the Provisional Regulations of the PRC on Resource Tax (1993) were implemented by the State Council in September 2011. The 1993 regulations had distinct local and central government taxes, which were collected separately, and distinguished between three basic taxes: a value-added tax (VAT), an enterprise income tax (EIT), and a personal income tax (PIT). (Wang, *Ibid.*, 10-1, 65) The new law replaced production-based taxation with sales-based taxation at a 5-10 percent rate for crude oil and natural gas, and substituted royalties for resource taxes. If the 1993 rules were designed to boost rapidly dropping central government revenue, 2011 regulations appear to benefit local governments. (“China Kicks off National Resource Tax Reform”; KPMG, “China Alert”).

³³⁹ In 2011, the MLR’s Announcement №30 gave shale gas a new legal classification.

³⁴⁰ According to the new issue of the recurring Catalogue of Industries for Guiding Foreign Investment released by the NDRC and MOFCOM in 2011. Foreign companies with experience in shale gas exploration and production were welcome to participate in China’s industry. (Stressed in the October 2012 MLR Circular on Exploration, Exploitation and Administration of Shale Gas. It also specified conditions for being granted the right to operate in the industry) In 2011 – 2012, two rounds of bidding were held attracting an increasing number of participants and distributing a growing number of blocks. In the first bidding held in June 2011, six SOEs (CNPC, Sinopec, CNOOC, Yanchang Petroleum, CUCBM, and Henan CBM) participated in the invitation bidding and only two, Sinopec and Henan CBM, received exploration rights. In the next round, in September 2012, 83 companies participated, including two private firms, and 16 were granted the rights. The third round was initially scheduled for 2013, but was delayed several times ultimately being rescheduled for early 2016. Unlike the previous two rounds, which were administered by the MLR, the third bidding process was supposed to be managed by the local governments. This change was a cause of concern among domestic private and foreign investors. (See Yue Wang, “China’s Coming Shale Gas Auction Offers Little Hope To Private Investors,” *Forbes* (August 07, 2014)) but, as of November 2015, administrative duties were transferred back to the MLR. (Bloomberg, “China Pushing Ahead With Shale While Falling Prices Dim Interest,” *Bloomberg.com* (November 05, 2015)). All these initiatives opened up new avenues for foreign investment entering China’s oil and gas sector, but foreign companies can participate in upstream shale gas operations only as part of joint ventures with Chinese companies.

³⁴¹ This is demonstrated by the second bidding round for shale gas exploration. Earlier only Chinese joint ventures had this right.

³⁴² They enjoy simplified project approval procedures. See “Global Oil & Gas Newsletter: Views from around the World,” *Deloitte* (April 2013); “Catalogue for the Guidance of Foreign Investment Industries (Amended in 2011),” *Ministry of Commerce, People’s Republic of China* (February 21, 2012).

³⁴³ The Decision to Eliminate or Delegate Certain Administrative Approval Items (May 2013) abolished the requirement for MOFCOM to approve oil and gas (including CBM) contracts with foreign parties. The Decision also delegated several approval items from NDRC and other central agencies to their local branches and provincial government authorities. The Decision to Further Eliminate Certain

NOCs remain under the central government's control despite growing into powerful corporate entities. The Central Committee of the CCP continues to appoint NOCs' top leadership and, as part of their management performance assessment, executives are evaluated on "how well they serve the CCP's interests."³⁴⁴ Also, the practice of NOC leadership reshuffling is a central government means to demonstrate its "control over these immensely powerful organizational actors."³⁴⁵ Finally, a range of other control mechanisms includes government approval of substantial domestic and foreign investment, SASAC,³⁴⁶ petroleum production targets, health, safety, and environment (HSE) standards, as well as various economic and social targets.³⁴⁷

However, the government is dependent on the NOCs as much as the NOCs are dependent on the government, and there is a mutual understanding that the role of the government is important for NOCs' ability to secure interests overseas.³⁴⁸ The NOCs' unique role in the O&G policy framework consists of consultations with the government, and policy inputs during the decision-making process.³⁴⁹ The dominant point of view sees NOCs as "the key drivers of "supply side" policies,"³⁵⁰ and policy implementers guided by both state goals and their own priorities.³⁵¹ But there appears

Administrative Approval Items and Delegate Administrative Power to Lower Government Authorities (February 2014) removed the requirement to obtain MLR's approval for E&P of mineral resources for the parties to the Sino-Foreign cooperation contract (Philip Andrews-Speed and Christopher Len, "China Coalbed Methane: Slow Start and Still Work in Progress," Energy Studies Institute (December 5, 2014)).

³⁴⁴ Downs, "China's "New" Energy Administration," 42-3.

³⁴⁵ Lewis, *Ibid.*, 9. The most recent NOC leadership reshuffling took place in 2011 and 2015. Michal Meidan, "The structure of China's oil industry: Past trends and future prospects," The Oxford Institute for Energy Studies (May 2016).

³⁴⁶ Kong, *China's international petroleum policy*, 26; Qunhui Huang and Jing Yu, "A New Approach to China's SOE Reform and Governance," *China Economist* (2014), 22. As discussed earlier in the chapter, SASAC employs two major mechanisms: financial control of state assets and Discipline and Inspection Groups appointments.

³⁴⁷ Øystein Tunsjø, *Security and profit in China's energy policy: hedging against risk* (New York: Columbia University Press, 2013), 42.

³⁴⁸ NOCs receive loans below market rates, and the government provides infrastructure investment and aid to oil producing states. (Downs, "China," 41) This help is considered beneficial to both NOCs and the Chinese state as a whole, because NOCs are profitable and contribute significantly to the state budget.

³⁴⁹ Downs, "The Chinese Energy Security Debate," 25; Kong, *China's international petroleum policy*, 1-2.

³⁵⁰ Downs, "The Chinese Energy Security Debate," 25.

³⁵¹ Pietz, *Ibid.*, 54; Downs, "China," 16, Gabriel B. Collins and Andrew S. Erickson, "Chinese Efforts to Create a National Tanker Fleet," in *China's energy strategy: the impact on Beijing's maritime policies*, ed., Gabriel B. Collins (Annapolis, MD: Naval Institute Press, 2008), 92-93; Downs, "China's "New" Energy Administration," 42-3; Dorian, *Ibid.*, 51.

to be a disagreement on the role of NOCs in agenda setting and policy formulation. Some argue that “corporate actors... come into play...” during policy formulation and decision-making stages.³⁵² Others believe that NOCs “are rarely present at the stages of problem identification or in the elaboration of policy alternatives... [and] only react to actual policies.”³⁵³ Regardless of the most recent reshuffles in their top management (2011 and 2015) and corruption purge (2012 – 2013),³⁵⁴ the NOCs continue to “work as high-ranking bureaucracies,”³⁵⁵ and influence the overall direction of energy policy.

Summary

China’s O&G policy framework reflects the influence of a variety of factors: institutional path dependence, organizational inefficiency (i.e., coordination and power-sharing issues), changes in administrative arrangements, ideological shifts over time, changes in the legal framework as well as factors outside direct control of China’s institutions and policy actors (e.g., foreign resource exploitation in 1842-1949 and Soviet approach to development).

The legal framework has from the beginning had the objective of attracting foreign capital and technical expertise, while ensuring that mineral resources belong to the Chinese state. While regulating various O&G sector participants, including state-, collectively-, and privately-owned enterprises, the legal framework promotes the role of major NOCs, especially CNOOC and CNPC. It guards their leadership position and protects assets administered by NOCs from private investment. For instance, none of major NOCs are participating in the SOE hybrid ownership reform underway since the late 2013,³⁵⁶ which is designed to attract more private capital into management of SOEs. Moreover, compared to the general trend of many industries

³⁵² Meidan et al., *Ibid.*, 593; Kong, *China's international petroleum policy*, 1-2.

³⁵³ Constantin, *Ibid.*, 18-19.

³⁵⁴ Meidan, *Ibid.*, 46, 50; David Lague, Benjamin Kang Lim, and Charlie Zhu, "Special Report: Fear and retribution in Xi's corruption purge," Reuters (December 23, 2014).

³⁵⁵ Conglin Xu, "China's NOC's expansion," *Oil & Gas Journal* (April 22, 2013).

³⁵⁶ "China names companies for SOE reform; oil companies move ahead with change," Platts (July 17, 2014).

opening up for foreign investment, oil and gas remains one of the more regulated sectors. Although the 2015 list of sectors requiring foreign investors to partner up with a Chinese investor was reduced from 43 to 15, exploration and development of conventional and unconventional oil and gas resources is among those 15 sectors.³⁵⁷

The central government's "authority to direct, control, and implement" China's oil and gas strategy is strong,³⁵⁸ but the administrative arrangements illustrate that it has limited resources to manage the O&G and the energy sector as a whole. While the overall energy policy of the PRC can be characterized as "muddling through and at times chaotic,"³⁵⁹ "paralyzed,"³⁶⁰ "reactive,"³⁶¹ and governed by "fragmented institutional authority,"³⁶² the same qualities, but of a smaller magnitude are characteristic of China's oil and gas policy. There are specific administrative units governing the oil and gas sector, although the boundaries of their responsibilities are often blurred. NOCs are powerful entities and tend to promote China's national interests with slight modifications, but they remain under the central government's control.

4.2.3.2 Referent Object Performance

Since the late 1970s actors governing and participating in China's oil and gas supply chains were no longer identical (See Table 4.2). Along with the first NOCs, foreign companies entered the sector in the late 1970s – early 1980s and were joined by domestic private companies in the 2000s. While NOCs remain the key players in the oil and gas sector and the performance of oil and gas supply chains is analyzed based

³⁵⁷ This is reflected in the Foreign Investment Industrial Guidance Catalogue, one of the most essential documents in the foreign investment regulatory regime.

³⁵⁸ Tunsjø, *Ibid.*, 51.

³⁵⁹ Pietz, *Ibid.*, 54.

³⁶⁰ Downs, "China's "New" Energy Administration," 42-3.

³⁶¹ Kong, *China's international petroleum policy*, 145.

³⁶² Downs, "China," 24.

on their performance, foreign and domestic private companies are briefly discussed first.

Table 4.2: Key Players in China’s Upstream and Midstream Oil and Gas Sector (1960s – 2015)

1960s – 1970s	1980s	1990s	2000s	2010s
MPI	MPI	NOCs	NOCs	NOCs
MFT	SOEs (NOCs)	Foreign companies	Private companies	Private companies
SPC	COEs		Foreign companies	
	Foreign companies			

Notes: **MPI** – Ministry of Petroleum Industry (1955 – 1978), although the name of the ministry changed several times during this period
MFT – Ministry of Foreign Trade (1952 – 1982)
SPC – State Planning Commission (1954 – 1998), now known as NDRC
SOEs: CNPC, Sinopec, CNOOC, Sinochem, Yanchang Petroleum, Zhenhua Oil and others
Foreign companies have been present in China’s O&G sector since the 1980s, but can participate only in cooperation with Chinese companies (Sino-Foreign JVs)
Private companies refer to domestic companies: GUPC (a union of about 100 private companies), Guanghai Energy and its petroleum subsidiary, etc.

Foreign Companies

Prior to 1979, foreign companies played an important role of equipment sellers and consultants in contract design between the Chinese government and foreign O&G companies. By the early 1980s, MPI was forming many joint ventures with foreign firms in order to improve onshore production and “survey, explore, and develop China’s offshore potential.”³⁶³ Already in those JVs “foreigners obtained equity holdings in China.”³⁶⁴ The 7th Five-Year Plan (FYP) (1986 – 1990) called for a “gradual opening of China’s refining sector to foreign involvement.”³⁶⁵ During the 1998 – 2000 NOC restructuring and flotation of their subsidiaries, foreign companies solidified their presence in China. In April 2000, British Petroleum acquired 20% of PetroChina’s shares. In October 2000, ExxonMobil, BP and Shell collectively bought

³⁶³ Lieberthal and Oksenberg, *Ibid.*, 206-207, 260; Dorian, *Ibid.*, 171.

³⁶⁴ Lieberthal and Oksenberg, *Ibid.*, 169.

³⁶⁵ Dorian, *Ibid.*, 172.

about 8% of Sinopec's shares worth \$7 billion.³⁶⁶ In February 2001, Shell acquired \$200 million of CNOOC shares.³⁶⁷

However, by 2004, all of the above foreign companies relinquished acquired shares. ExxonMobil, Shell and BP were not "in the list of top ten shareholders... as of Sinopec's 2007 annual report date."³⁶⁸ BP sold its PetroChina shares in 2004 responding to international NGOs' criticism over construction of a controversial Sebei-Lanzhou pipeline in Tibet.³⁶⁹ But all companies continue to cooperate with China's NOCs via joint ventures mainly in the downstream, including activities like product marketing and brand building, and well as wholesale, retail, storage and transportation of refined oil products.³⁷⁰ For instance, BP maintained its presence in China via a joint venture with PetroChina – BP PetroChina Petroleum Co., Ltd. – that "owns and operates gasoline stations in China,"³⁷¹ mainly in Guangdong province.³⁷²

Thus, foreign companies flourished throughout the 1990s, but were dealt a setback in the 2000s. Currently, their participation in China's upstream and midstream is minimal, and so is their importance in the securitization processes. They have not been able to rise to the ranks of very influential policy and sector players because the policy arena participants governing O&G supply chains and the institutional environment as a whole have always been wary of the outsiders, especially foreigners.

³⁶⁶ Xinting Jia and Roman Tomasic, *Corporate governance and resource security in China: the transformation of China's global resources companies* (New York: Routledge, 2010), 110.

³⁶⁷ International Business Publications, USA, *China energy policy, laws and regulation handbook*, Vol. 1, Strategic Information and Basic Laws (Washington, D.C.: International Business Publications, USA, 2015), 72.

³⁶⁸ Jia and Tomasic, *Ibid.*, 110.

³⁶⁹ "BP sells controversial PetroChina shares," International Campaign for Tibet (January 13, 2004).

³⁷⁰ Sinopec Corp, *Our Partners*.

³⁷¹ Bloomberg, "Company Overview of BP Petrochina Petroleum Co., Ltd." *Bloomberg.com*.

³⁷² Leslie Hook, "PetroChina open to closer ties with BP," *Financial Times* (July 12, 2010).

Domestic Participants Beyond NOCs

Domestic players in China's O&G sector started to emerge in the early 1980s. In addition to what later became major NOCs, private companies and collectively-owned enterprises (COEs)³⁷³ were created.³⁷⁴ In the early 1990s, the government "ease[d] restrictions on investments into the nation's interior provinces."³⁷⁵ However, market liberalization "created chaos in the oil market due to an inadequate legal system,"³⁷⁶ and in 1994 the government reversed oil and gas sector decentralization measures including "price decontrol and unrestricted oil business licenses."³⁷⁷ As a result of tight government regulations, private companies, the majority of which flourished in the downstream sector, were forced out of business. During the next few years leading up to the extensive 1998 reform, NOCs were restructured and given more power than their private counterparts and COEs. This resulted in the consolidation of many COEs and private companies' assets in the hands of the three major NOCs.

Since the late 1990s, the dominance of a limited number of NOCs in the Chinese oil and gas market was preconditioned by their almost exclusive access to resource-rich acreage and unique right to import crude oil. These factors explain the lack of competition in the upstream and midstream sectors, with all other market players limited to operations in the downstream. Even though policies and regulations implemented in 2005 (known as "36 Non-State Articles") encouraged development of private enterprises,³⁷⁸ restrictions on crude oil imports remained a powerful tool of market control in the hands of NOCs. In 2010, the "New 36 Non-State Articles"

³⁷³ COEs were "usually owned by the local community or local government of the townships and villages in which they [were] located; they obtain[ed] a small proportion of their supplies from the state and distribute[d] a small percentage of their sales through the state" (Wang, *Ibid.*, 6).

³⁷⁴ Wang, *Ibid.*, 6; Dorian, *Ibid.*, 222-4.

³⁷⁵ Dorian, *Ibid.*, 172.

³⁷⁶ Wang, *Ibid.*, 49.

³⁷⁷ *Ibid.*, 49-50.

³⁷⁸ The Great-Wall United Petroleum Company (GUPC), "China's first independent oil giant was formed in June 2005," (Kong, *An Anatomy of China's Energy Insecurity*, 45-7; Kong, *China's International Petroleum Policy*, 79) representing "at least 100 domestic privately-owned oil firms" ("Private Oil Companies Unite to Form Great-Wall," China.org.cn (May 26, 2005)).

became a more extensive attempt at reforming monopolized industries, but energy remained one of a few sectors where implementation of directives lagged behind.³⁷⁹ Even the June 2012 “Implementation Opinions on Encouraging and Guiding Expanded Non-state Investment in the Energy Sector” by the NEA had no mention of relaxing the crude oil import rights requirement with regards to private oil companies. Expanding domestic refining capacity in 2010s resulted in lower profit margins among domestic refiners and led to a rise in petroleum product exports.³⁸⁰ In March 2014, 3.4% exports increase and 25% imports decrease on the same month a year ago turned China into a net exporter of oil products for the first time since January 2010.³⁸¹ Finally, in August 2014, the petroleum subsidiary of Guanghui Energy “was granted an import quota of 200,000 metric tons of crude oil for 2014, becoming the first private company to obtain such a license.”³⁸² In August 2015, two independent refiners – Dongming Petrochemical and Beifang Asphalt Fuel – were granted licenses to import crude oil as well.³⁸³ Hence, market liberalization in China’s oil and gas industry has been slow, but it is moving forward. Today, “SOEs as well as private domestic and international actors are... all part of the system.”³⁸⁴

Thus, compared with the foreign players, China’s domestic private companies play an increasingly important role. Even though domestic non-SOE players are still very limited due to existing restrictions, given the developments of the recent years, they do change the competitive landscape and represent potential competition to major

³⁷⁹ Zhenhua Oil, a subsidiary of the China North Industries Group (“Norinco Group”) became the only recipient of an oil import permit besides NOCs and several other state-owned enterprises. But the company had “non-state crude oil import qualifications because of its military background,” and, thus, had no right to circulate imported oil domestically (Wu, *Ibid.*, 8; Xingyuan Feng, Christer Ljungwall and Guangwen He, *The ecology of Chinese private enterprises* (Hackensack, NJ: World Scientific, 2015), 50; Bloomberg, “Company Overview of China ZhenHua Oil Co., Ltd.,” Bloomberg.com).

³⁸⁰ As of 2015, China’s refining capacity stands above 14 million b/d (“U.S. Energy Information Administration - EIA - Independent Statistics and Analysis,” U.S. Energy Information Administration (May 14, 2015)).

³⁸¹ Neil Hume, “China shifts to oil product exporter,” *Financial Times* (April 11, 2014).

³⁸² Du Juan, “Private firm Guanghui gets oil import license, shares jump,” *China Daily USA* (August 29, 2014).

³⁸³ “China approves crude import licenses for two independent refineries,” *Platts* (August 25, 2015).

³⁸⁴ Meidan et al., *Ibid.*, 597.

NOCs. Their role in the policy process is very limited, but they can become vocal stakeholders in the near future.

NOC Evolution

While seven periods can be distinguished in the evolution of China’s oil and gas supply chains, the first three of them spanning over three decades (1949 – 1981) predate the establishment of the NOCs (See Table 4.3). Period I is characterized by a nascent oil and gas sector because it preceded the development of the first oil field in the PRC. Periods II and III are associated with the boom in the oil and gas industry, but since the sector was dominated by government agencies, its performance in these periods is better assessed through the analysis of the institutional arrangements conducted earlier in this chapter (See Section 4.2.3.1). Thus, the performance of oil and gas supply chains is analyzed in Periods IV – VII, which saw the formation, advancement and dominance of NOCs.

Table 4.3: Distinct Time Periods in China’s Oil and Gas Sector Development (1949 – 2015)

Net Oil Importer		Net Oil Exporter		Net Oil Importer		
Period I	Period II	Period III	Period IV	Period V	Period VI	Period VII
1949 – 59	1960 – 72	1973 – 81	1982 – 92	1993 – 98	1998 – 2002	2002 – 15
Pre-NOC period			NOC period			

Starting with Period IV, NOCs and their subsidiaries have outweighed all other actors, including foreign and private domestic companies, when it comes to their contribution to the referent object’s performance. Period IV (1982 – 1992) refers to the transition period when ministries were reorganized into SOEs. Period V (1993 – 1998) is the period of continued corporatization of NOCs. Period VI (1998 – 2002) is the time of SOE reform, restructuring and flotation. Period VII (2002 – 2015) is the period of value maintenance and appreciation of state assets held by SOEs.

Securitization of oil supply chains initiated by the MPI persisted with the creation and development of the NOCs. First, the NOCs are the direct successors of the ministry, having inherited the leadership and general outlook on the management of oil supply chains. Second, corporate restructuring and changes in the institutional arrangement focus on improving the NOCs' performance with the goal of ensuring secure oil and gas supply. Additionally, NOCs are using securitized supply chains for their own interests: to keep the competition out of the upstream and midstream segments (1982 – 1992), to take advantage of the government financing (1993 – 1998), to eliminate competition in the form of their own subordinate units (1998 – 2002), and to use the concepts of energy and oil security to compete and obtain expensive assets overseas at any cost (2002 – 2015).

Thus, oil and gas supply chains' performance is analyzed based on the NOCs' evolution during four consecutive stages between 1982 and 2015. The indicators – physical, financial, economic efficiency, and compliance – outlined in the securitization framework are used as a rough guide for analysis.

Transition Period: from Ministries to NOCs (1982 – 1992)

Although the first large NOC was formally established in 1982, the MPI – to – SOEs transformation started in the late 1970s and was accompanied by the struggle for mandates and resources as well as conflicting interests between incumbents and emerging actors. Based on the influence NOCs were able to obtain in the struggle for power and ministerial legacy, CNPC and Sinopec received a ministerial-level rank, while CNOOC was designated a general bureau (vice-ministerial rank).³⁸⁵

³⁸⁵ Dorian, *Ibid.*, 51; Downs, "China," 21-24; Kong, *China's international petroleum policy*, 14.

At initial stages of their development, NOCs were “segmented and focused on one single area of operation” within the oil and gas supply chain.³⁸⁶ CNPC was managing onshore upstream, CNOOC – offshore upstream, Sinopec –refining, and Sinochem – domestic and international trading.³⁸⁷ At the time when oil and gas services space was overcrowded with NOC players,³⁸⁸ monopolization of supply chains’ segments was blocking healthy competition and impeding the NOCs’ ability to effectively respond to oil price volatility and supply insecurity.

Instead of competing with each other and other players in the market, NOCs faced challenges from their own subordinate units. While the government took away NOCs’ rights to production plans, pricing and marketing, subordinate enterprises diminished CNPC and Sinopec’s “financial control, performance and monitoring, procurement, and R&D.”³⁸⁹ Their subordinate production units had a lot of autonomy,³⁹⁰ from making investments and financing them through bank loans, to retaining a large share of profits. For instance, CNPC’s Daqing had aspirations to become an independent vertically integrated entity, and Sinopec’s Zhenhai refinery had ambitions to become the largest regional refiner through mergers and acquisitions (M&As).³⁹¹

Hence, this period in the oil and gas industry management restructuring saw the end of energy ministries and proliferation of SOEs. Despite clear advances towards corporatization and decentralization, NOCs remained under tight government control, explained, in part, by the dual nature of the former as agents of the state and business

³⁸⁶ Kong, *Ibid.*, 14.

³⁸⁷ Kong, *An Anatomy of China’s Energy Insecurity*, 45-7, Kong, *China’s international petroleum policy*, 14.

³⁸⁸ For instance, in the early 1980s, China Nanhai Offshore Joint Services Corporation (CNOJSC), a joint venture between CNOOC and Guangdong province, was competing with CNOOC and other Chinese enterprises servicing recently allowed joint ventures between domestic and foreign companies in offshore petroleum exploration and development (Lieberthal and Oksenberg, *Ibid.*, 339-40, 371).

³⁸⁹ Zhang, *Ibid.*, 6, 134-136.

³⁹⁰ Their autonomy was the result of initial corporatization of various ministries’ assets in the late 1970s – early 1980s, when the Chinese government had started to experiment with the SOEs and appropriated power to these units.

³⁹¹ Zhang, *Ibid.*, 6.

units. The government controlled the functions vital for the profit-driven corporate decision-making, and minimized competition in the sector, with four NOCs dominating their respective segments of the supply chain. In addition to the government restraints, NOCs were powerless against their strong subordinate units.

Continued Corporatization (1993 – 1998)

Dominated by the three NOCs in 1993, upstream and midstream segments of O&G supply chains encountered challenges of “an overheated economy” characterized by too fast of a growth in oil and gas compared to other sectors of the economy. The central government was concerned with deteriorating performance of many SOEs: “falling rates of return on capital investment; a rising proportion of loss-making companies; an increasing level of indebtedness to banks and a low level of central government tax revenue.”³⁹² Thus, proliferation of SOEs had to be curbed, and focus shifted to enhancing their performance.³⁹³

In addition to the shift from quantitative to qualitative growth, this period was characterized by a number of new developments. First, strict boundaries between NOCs in the supply chain started to erode. CNPC and Sinopec formed joint ventures with Sinochem, the major downstream player, which allowed them to enter the business of import/export.³⁹⁴ Second, despite the government’s opposition,³⁹⁵ CNPC began to invest overseas since the early 1990s in order to boost its profits, having “announced that internationalizing its operations was one of its three main strategies.”³⁹⁶ At the same time, extensive government support³⁹⁷ continued to

³⁹² Andrews-Speed et al. (2000), 8.

³⁹³ Implemented since 1991, the 8th FYP had shifted a priority from “initiating new” SOEs to “improvement of economic returns and upgrading of existing enterprises” (Dorian, *Ibid.*, 81; Wang, *Ibid.*, 6).

³⁹⁴ Wang, *Ibid.*, 65.

³⁹⁵ The Chinese government changed its stance by the late 1990s and endorsed the “going out” strategy by NOCs and other SOEs.

³⁹⁶ Downs, “China,” 39.

negatively affect NOCs' ability to earn profits independently and sustain their existence. Third, the status of a net importer of oil³⁹⁸ and potential accession to the WTO³⁹⁹ pushed China towards a more open domestic oil market and active international cooperation.

Thus, despite their curbed proliferation, NOCs continued to accumulate power during this period. Zhu Rongji, who was in charge of China's economy in 1993 – 2003, "deliberately enhanced the financial and administrative autonomy of China's NOCs to make them more efficient in preparation for the listing of their subsidiaries on international stock exchanges."⁴⁰⁰ These few years became a cleaning-up and tightening up period preparing the industry for a major overhaul of 1998 – 2000.

SOE Reform, Restructuring and Flotation (1998 – 2002)

SOE reforms of 1998 have been the most extensive in the history of NOCs thus far. First, CNPC and Sinopec were restructured into vertically integrated majors. CNPC monopolized operations along the whole supply chain in Northern and Western China, while Sinopec's assets were located in the South and East.⁴⁰¹ Also, the two NOCs absorbed the remaining provincial level companies.⁴⁰²

Second, nominally, NOCs lost their regulatory functions to the SETC,⁴⁰³ but at the same time obtained more independence in decision-making. NOCs were now

³⁹⁷ The government provided a guarantee of materials supply, market for their output, controlled prices, workers' employment, and repayment of debt at no interest (Wang, *Ibid.*, 9).

³⁹⁸ As a net importer of oil, the government now had to devise new comprehensive strategies for supplying the resource, but it just stripped itself off the central planning agency – the Ministry of Energy.

³⁹⁹ The negotiation of China's accession into the WTO presupposed fulfillment of certain conditions. Pressured "to open its internal market as a precondition for entering the WTO, China scraped import licenses and quotas for 367 commodities in 1995," including crude oil. However, "the change [had] virtually no impact on the domestic market... [because] refineries' crude intake and production [were] completely administrated by the central government... There [was] no refinery capacity outside of Sinopec and CNPC to run additional imported crude" (Wang, *Ibid.*, 69-70).

⁴⁰⁰ Downs, "China," 21.

⁴⁰¹ International Energy Agency, "Developing China's Natural Gas Market: The Energy Policy Challenges," 82; Andrews-Speed et al. (2000), 14.

⁴⁰² International Energy Agency, *Ibid.*, 295.

⁴⁰³ *Ibid.*, 82; Andrews-Speed et al. (2000), 11-2.

responsible for financing their operations predominantly through bank loans rather than capital allocated to them by the central government, decided on production quantities, sources and nature of raw materials and components, determined hiring policies and wages of their employees, and had to pay taxes directly to the government instead of remitting profits.⁴⁰⁴ Nevertheless, the government continued to play a strong role in the NOCs' investment decisions, and controlled oil trade and prices.⁴⁰⁵

The next step of the reform process was “restructuring and flotation” (*chongzhu shangshi*),⁴⁰⁶ or further organizational changes and listing of companies on international stock exchanges in Hong Kong and New York in 1999 – 2000. The new shareholding companies were two integrated oil and gas firms, PetroChina as part of CNPC and Sinopec as part of Sinopec Group. Both ‘child companies’ were “successfully listed on the international market and have entered the league of top ten publicly-traded oil companies in the world.”⁴⁰⁷

Thus, the proclaimed determination of the Chinese government to “construct internationally competitive large firms”⁴⁰⁸ was finally materializing. In their organizational structure, PetroChina and Sinopec were very similar to other international integrated oil companies. If in the beginning they lacked “a strong ‘one company’ corporate identity and culture,”⁴⁰⁹ they won authority over their subordinate units with the establishment of the ‘one-tier’ legal person system (*yiji faren zhi*). PetroChina and Sinopec starting to centralize their investment, financial, and marketing control over the branch companies was the ultimate indication that CNPC and Sinopec won the fight against smaller dispersed competitors. Finally,

⁴⁰⁴ Wang, *Ibid.*, 9.

⁴⁰⁵ although “domestic oil prices [were] linked directly to international prices through a formula set” by the NDRC (Andrews-Speed et al. (2000), 14).

⁴⁰⁶ Zhang, *Ibid.*, 1-2.

⁴⁰⁷ Zhang, *Ibid.*, 3.

⁴⁰⁸ Peter Nolan and Jin Zhang, *The Challenge of Globalization for Large Chinese Firms*, United Nations Conference on Trade and Development (July 2002).

⁴⁰⁹ Zhang, *Ibid.*, 183.

although competition was still absent, the fact that the asset-swap agreement between CNPC and Sinopec “did not give exclusive rights to either company... provid[ed] room for gradual competition.”⁴¹⁰

Value Maintenance and Appreciation of State Assets (2002 - 2015)

While designing the governance of the oil and gas sector around SOEs was the focus of the late 1970s – early 2000s, once flotation was completed and NOCs were increasingly looking like self-sufficient corporations, the central government shifted its attention to adapting other organizations, responsible for the regulation of the sector and NOCs, to changed economic and political conditions.

From this point forward, the relationship between the government and NOCs has been “characterized by increased friction at home and improved coordination abroad.”⁴¹¹ Domestically, the central government’s attempt at creating a competitive oil and gas market by endorsing private investment in 2005 was against the NOCs’ interests. Internationally, the “going out” strategy was expanded in an effort “to help NOCs secure trade and investment opportunities and to prevent them from competing against each other.”⁴¹²

However, even overseas tensions sometimes arise between the government and NOCs. This happens when the companies’ objectives clash with the government’s objectives, the problem that originates in the profit-oriented vs. national interest political priorities. Additionally, there have been instances when Chinese NOCs competed against one another internationally for overseas assets.⁴¹³

⁴¹⁰ International Energy Agency, “Developing China’s Natural Gas Market: The Energy Policy Challenges,” 82.

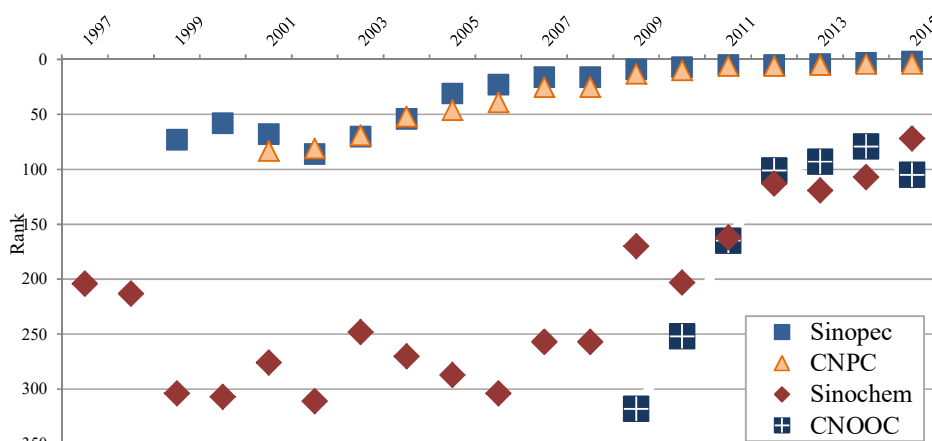
⁴¹¹ Downs, “China,” 2.

⁴¹² *Ibid.*, 7.

⁴¹³ *Ibid.*, 24.

Although three major NOCs – CNPC, Sinopec, and CNOOC – share the same origin, they evolved into “different corporate entities.”⁴¹⁴ In terms of aligning their strategies with government policies, CNPC is “more attuned to state direction,” CNOOC is “at the other end of the spectrum,” and Sinopec “lies in between.”⁴¹⁵ Differences between the three are reflected in financial performance indicators. Ranking of China’s majors in Fortune Global 500 list in the period from 1997 to 2015 is one of the ways to illustrate their comparative performance (See Figure 4.7).⁴¹⁶ As of 2015, Sinopec is ranked 2nd, CNPC 4th, and CNOOC 105th by total revenues.

Figure 4.7: Ranking of China’s Major NOCs in Fortune’s Global 500 (1997 – 2015)



Source: “Global 500.”

Note: companies are ranked by total revenues for each fiscal year

The companies’ total assets multiplied in the last 10-15 years, after the flotation of their subsidiaries. CNPC’s assets increased five times between 2003 and 2014, from 808 billion RMB yuan to almost 4,000 billion RMB yuan.⁴¹⁷ Sinopec’s total assets have seen similar growth in 1998 – 2014, from 312 to 1,451 billion RMB yuan.⁴¹⁸

⁴¹⁴ Ibid., 40.

⁴¹⁵ Pietz, Ibid., 54.

⁴¹⁶ Sinopec and CNPC first appeared in the ranking in 1999 and 2001 in high positions, 73 and 83 respectively. As a much smaller company among the three, CNOOC debuted in Global 500 only in 2009 in 318th place. However, CNOOC’s ascent to the top is much more impressive than that of CNPC and Sinopec. CNOOC climbed 239 points in five years (2009 – 2014) and reached 79th position.

⁴¹⁷ CNPC, *Annual Reports*, 2004 – 2015. <http://www.cnpc.com.cn/en/>.

⁴¹⁸ Sinopec Corp, *Annual Reports*, 1999 – 2015. http://english.sinopec.com/investor_center/reports/.

Finally, CNOOC's assets in 2013 were nine times larger than in 2003, having multiplied from 120 to 1,042 billion RMB yuan in a decade.⁴¹⁹

NOCs' profitability has been rising steadily as well. Since the late 1990s – early 2000s, Sinopec and CNOOC's net profit increased about 10 times. CNPC's net profit growth has been much more moderate, having tripled in 2003 – 2014. In real numbers, as of 2014, CNPC's net profit was larger than that of CNOOC and Sinopec combined. Low oil prices of 2015 had a significant negative impact on all three companies with Sinopec's net profit down by 9%,⁴²⁰ and CNPC and CNOOC's by about 65% each.⁴²¹

Competition between the three NOCs has intensified, and it is encouraged by the central government through the *nomenklatura* system and leadership appointments.⁴²² In the 12th FYP (2011 – 2015), the central government also made it clear that support for “going out” strategy will endure. This is despite the criticism of the role of foreign asset ownership in enhancing national energy security. Active participation of NOCs and to a smaller extent private companies in oil exploration and production abroad compensates high import dependence. In 2011 – 2013, Chinese companies invested US \$75 billion in upstream M&A deals overseas.⁴²³ As of 2013, their overseas assets are estimated to produce 2.1 million b/d of oil, up from 1.36 million b/d in 2011.⁴²⁴

In a little over thirty years China's major NOCs have transformed from ministry departments to central SOEs to state-run companies struggling to make profits to the world's largest oil and gas firms outperforming major IOCs. Although that they are state-owned and serve the interest of the same country, they are first and foremost

⁴¹⁹ CNOOC, *Annual Reports, 2004 – 2014*. <http://www.cnooc.com.cn/col/col7151/index.html>.

⁴²⁰ Sinopec Corp, *Annual Report, 2015*.

⁴²¹ PetroChina, *Annual Report 2015* (April 2016).

⁴²² Lewis, *Ibid.*, 19.

⁴²³ Jiang and Ding, *Ibid.*, 13.

⁴²⁴ *Ibid.*

firms. As corporate entities, they are more likely to compete than cooperate, especially overseas where the influence of their domestic government is limited.

4.3 Key Findings

First, in addition to the agreement among policy actors that the referent object is threatened, it is important that they agree on *what* is threatened. In other words, for securitization to take place, the boundaries of the referent object have to be clearly defined. After all, the referent object is the object of securitizing actor's actions, not the threat. Securitization does not attempt to eliminate a threat. It tries to change the behavior of the referent object.

Second, heterogeneity of the policy arena is expressed not only through the number of policy actors in it, but also by the attributes of its actors. Diversity of policy arena actors is rooted in the institutional environment. For example, in the case of China, factionalism in the CCP (institutional environment) leads to increased diversity in the oil and gas policy arena.

Third, as the Chinese experience demonstrates, it is possible for one type of securitizing actor to evolve into another. This is illustrative of the ability of securitizing actors to evolve and adapt to new policy arena and institutional conditions.

Fourth, it is possible to trace the beginning of the securitization process to certain policy actors (which emerged as securitizing actors), but it is usually difficult to attribute it to a single or a combination of events. Instead, all three types of inputs are at play, although at various degrees.

Fifth, as long as the referent object remains relevant in the eyes of any policy actors, the securitization process is unlikely to be reversed even if the power of securitization

actor fades over time. The process is likely to proceed in waves, with layers adding up on one another. Thus, in most cases, the securitizing actor is necessary to kick start securitization, but its presence is not required for securitization to endure.

Chapter 5: Securitization of Oil and Gas Supply Chains in Canada (1947 – 2015)

5.1 Introduction

Canada's oil and gas (O&G) sector is one of the most sophisticated national O&G sectors in the world. The government has generally applied a market approach to governing the sector, and all components of O&G supply chains, from upstream activities and pipeline transportation to refining and downstream operations, are fully liberalized. In the downstream sector, gasoline price regulations imposed by the four Atlantic provinces⁴²⁵ and Quebec are the only exception to the overarching liberalized market framework.

Historically, hydrocarbon production has been concentrated in Western Canada.⁴²⁶ In 1950s – 1990s, for geographic, economic, demographic, and policy reasons, Canadian provinces east of Ontario and later east of Quebec have been cut off from Western Canadian supplies and have had to substitute them with foreign imports. Since the mid-1990s, Canada's participation in NAFTA resulted in further transformation of domestic west-east flows between provinces into international north-south flows between Canada and the US. As a result of NAFTA, Ontario and Quebec also consumed more imported crude oil. Despite the prevalent role of exports, imports have played an important part in Canada's O&G balance of trade. Crude and refined oil imports help meet large shares of Canada's demand in six provinces.

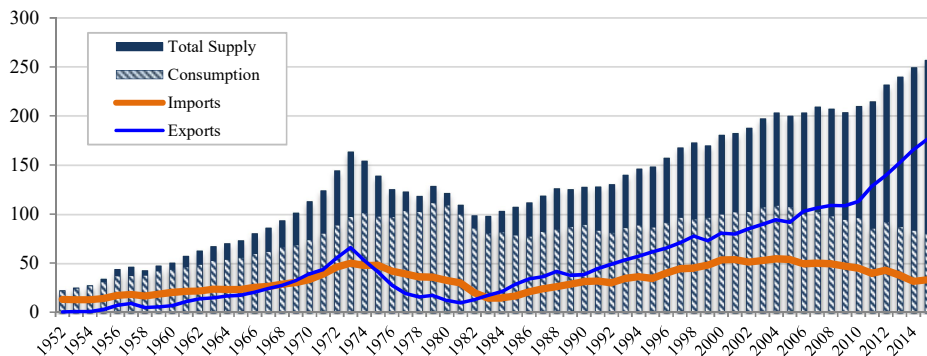
According to the 2014 estimates, Canada holds 10% of the world's proven reserves of crude oil, ranking 3rd after Venezuela and Saudi Arabia, but only 1% of the world's

⁴²⁵ The region of Atlantic Canada includes four provinces: New Brunswick, Prince Edward Island, Nova Scotia, and Newfoundland and Labrador.

⁴²⁶ Alberta and Saskatchewan are the leaders in crude bitumen production. Much smaller quantities of oil have been sourced from Ontario since 1861 and Newfoundland since 1996 (Larry Hughes, "Eastern Canadian crude oil supply and its implications for regional energy security," *Energy Policy* 38, no. 6 (2010), 2694). Nova Scotia produced offshore crude oil between 1991 and 1999. Light tight and shale oil reserves are located in Saskatchewan and Manitoba. Some unconventional oil resources potentially suitable for commercial development are also found in Eastern Canada (International Energy Agency, "Energy Policies of IEA Countries – Canada 2015 Review," *OECD* (2015), 31, 126, 131-132).

proven reserves of natural gas, ranking 18th. Canada is also the 5th largest producer of oil and 4th largest producer of gas.⁴²⁷ It has been a net exporter of natural gas since the late 1950s, a net exporter of petroleum products since 1974, and a net exporter of crude oil since 1983 (See Figures 5.1, 5.2 and 5.3).

Figure 5.1: Canada’s Crude Oil Dynamics, million cubic meters (1952 – 2015)



Data Sources: Statistics Canada, “Table 126-0002”; Statistics Canada, “Table 126-0001.”

Notes: ⁱ Majority of imports are destined for Ontario, Quebec and the Atlantic provinces.⁴²⁸

ⁱⁱ 97% of exports are destined for the US.⁴²⁹

ⁱⁱⁱ Sources of imports vary from year to year, and supplies are split unevenly between the receiving provinces. In 1990 – 2008, Algeria, the UK, and Norway were the top suppliers of Canadian crude oil imports.⁴³⁰ In 2013, the top suppliers were the US (20%), Algeria (13%) and Iraq (12%).⁴³¹ In 2014, the US (54%), Saudi Arabia (11%) and Iraq (8%) provided over two thirds of Canada’s consumption.⁴³²

⁴²⁷ Natural Resources Canada, *Energy Fact Book 2015 – 2016* (Canada, 2015), 3, 20, 42. The majority of domestically produced natural gas is shale and tight gas, with reserves spread out across the country (Ibid., 44). Concentration of gas reserves in Western Canada is very high, with 98% of production located in Alberta, British Columbia, and Saskatchewan (IEA, “Energy Policies of IEA Countries – Canada 2015 Review,” 98, 110; International Energy Agency, “Natural Gas Information: 2015 edition,” IEA (2015)). But unlike with crude oil, eastern provinces have major shale and tight gas development potential, and are likely to dilute the concentration of production in the near future.

⁴²⁸ Ontario receives a part of domestic production via pipelines, Quebec is currently fully dependent on foreign imports via a pipeline and tankers, and Atlantic Provinces are completely disconnected from the pipeline infrastructure and receive all supplies via tankers (Hughes, Ibid., 2693).

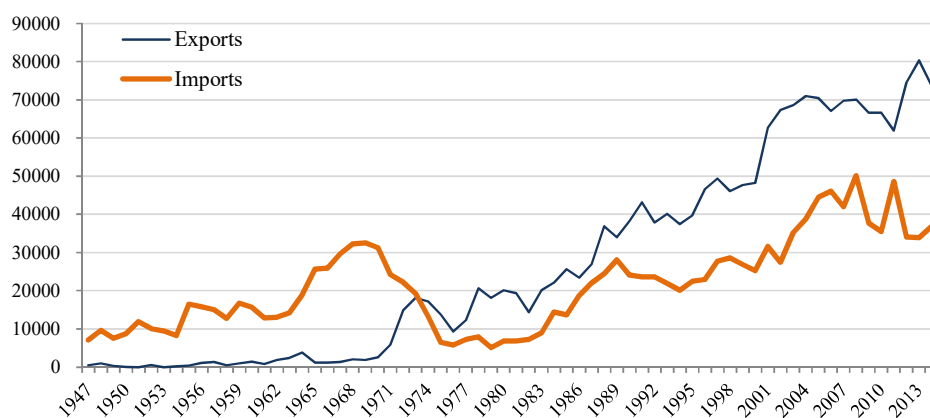
⁴²⁹ Natural Resources Canada, *Energy Fact Book 2015 – 2016*, 5.

⁴³⁰ Hughes, Ibid., 2695.

⁴³¹ Natural Resources Canada, *Pipeline Safety* (Canada, 2014).

⁴³² Natural Resources Canada, *Energy Fact Book 2015 – 2016*.

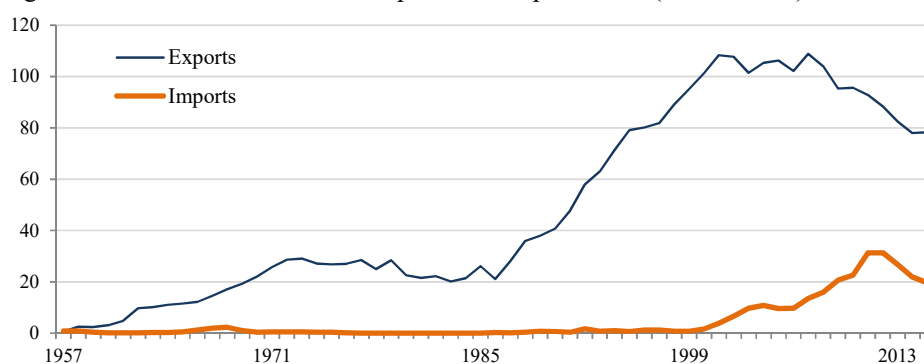
Figure 5.2: Canada's Petroleum Products Exports and Imports, cubic meters/day (1947 – 2014)



Data Source: Canadian Association of Petroleum Producers. *Statistical Handbook*.

- Notes:
- ⁱ Amounts of exported and imported petroleum products include condensate and pentanes plus and propane/butane/mixes.
 - ⁱⁱ Refining capacity is concentrated in Alberta, Ontario, Quebec, and New Brunswick.
 - ⁱⁱⁱ As of 2014, Canada exports 25% of its production and imports 12% of its consumption needs.
 - ^{iv} 76% of exports are destined for and 92% of imports originate in the US (Natural Resources Canada. *Energy Fact Book 2015 - 2016*).

Figure 5.3: Canada's Natural Gas Exports and Imports, bcm (1957 – 2015)



Sources: Statistics Canada, "Table 131-0001"; Statistics Canada, "131-0003."

- Notes:
- ⁱ More than half of Canadian natural gas production is exported, and the US is currently the only market for Canada's gas exports.
 - ⁱⁱ Canada's exports peaked in 2007, and its imports surged 165% in 2003 – 2013 (IEA, "Energy Policies of IEA Countries – Canada 2015 Review," 101-102).
 - ⁱⁱⁱ In 2014, Canada imported 25% of consumed gas, largely from the US, but with supplements from Qatar and Trinidad and Tobago.

By and large, Canada's oil and gas supply chains can be characterized as non-securitized. Policy processes around them do not fit the definition of securitization (see Chapter 3, Section 3.2.4) where securitizing actors would perceive oil and gas supply chains as threatened and attempt to alter their performance to better cope with the threat. Although talks on supply diversification and development of new export markets have been part of the policy discourse since the 1970s, no significant steps have been taken towards achieving either one of these suggested objectives with the exception of a brief period in 1973 – 1984.

When large scale development of the O&G sector took off in Canada in the late 1940s, oil and natural gas received equal attention from industry players and different policy treatment from the policy actors. Both fuels have always been important items on the list of exported products, but natural gas is a preferred source of energy domestically since the early 1970s when the government propagated the switch from oil to gas for the general purpose of sustainable development.⁴³³

The (non-)securitization of oil and gas supply chains has not always been parallel. The period of 1973 – 1984 can be seen as the time of oil supply securitization in Canada peaking in 1976 – 1980. The first oil shock of 1973 served as a trigger for oil supply chains securitization. It highlighted the fact that Canada was importing significant amounts of oil. Also, there was a marginal difference between crude oil imports and exports at the time. Eastern provinces fully dependent on imports were suddenly perceived as vulnerable to any prolonged supply disruption. Possibly, Canada's concerns were aggravated by an awareness of shrinking US production. The gap in US supply and consumption might have diminished the status of the US as a reliable partner and a secure transit point for potential oil deliveries to Canada from the perspective of Canadian policy-makers.

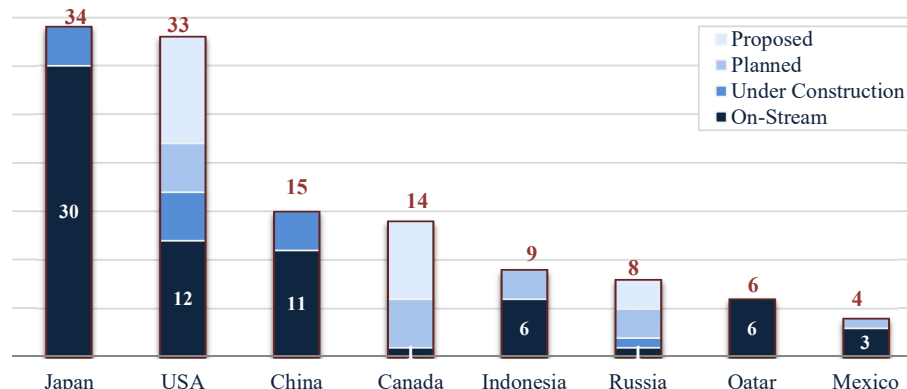
⁴³³ Bregha, Francois. "The Mackenzie Valley Pipeline and Canadian Natural Gas Policy." *Canadian Public Policy / Analyse de Politiques* 3, no. 1 (1977), 65.

Natural gas supply chains did not receive the same securitization treatment. Natural gas imports were minimal, and its supplies within Canada's borders were not perceived as threatened, although efforts were made to limit exports in the late 1970s. Thus, efforts to secure the referent object were limited to decreasing exports and simultaneously boosting domestic production. For the reasons discussed throughout this chapter, these measures were deemed inappropriate within a few years and scrapped by 1985.

In the decades that followed, neither oil, nor gas supply chains have seen a return to securitization, but Canada does have implicit concerns about security of oil and gas demand. These concerns arise from the US shale revolution posing a threat to Canada's oil and gas exports. However, Canada has enjoyed a rather unique position as part of the integrated and liberated North American oil and gas market. Due to deep integration between Canadian and US energy trade flows, it is arguable whether Canada would perceive the US shale revolution and disagreement over bilateral pipeline projects as a threat to its O&G sector. Canada's gas exports decreased in recent years, but pipeline flow reversals have ensured that its increased demand for oil and gas imports is met. Also, the number of LNG projects is on the rise⁴³⁴ (See Figure 5.4), and alternatives to Keystone XL are being considered to take Canadian oil to foreign markets.

⁴³⁴ Having fully relied on pipelined gas for over half a century, Canada is now seriously considering LNG as a means of diversification of supply sources and export markets. But as domestic gas production is forecasted to increase through 2040 (National Energy Board, *Canada's Energy Future 2016: Energy Supply and Demand Projections to 2040* (Canada, 2016)), the country would need to expand its LNG facilities quickly to be able to develop new export markets. After 2040, as production growth is expected to stabilize, if necessary, LNG infrastructure could be used for importing purposes.

Figure 5.4: LNG Infrastructure Development in Select Countries (February 2016)



Data Source: Global LNG Ltd., *World's LNG Plants and Regasification Terminals*.

Notes: LNG infrastructure includes LNG liquefaction plants and regasification terminals
As of February 2016, Canada has only one operational LNG facility.

An analysis of Canada's O&G supply chains through the lens of the securitization framework is an attempt to systematically assess the country's governance of O&G sector with the goal of uncovering securitization trends and explaining the reasons behind non-securitization. Guided by the theoretical framework and the research question, the case analysis systematizes existing observations and findings on the subject and provides insight into securitization processes in Canada's O&G supply chains based on multidimensional interactions between the institutional ecosystem, the policy arena, and the supply chains' performance.

In the case of Canada, type I inputs (Section 5.2.1) illustrate how embedded institutions and the institutional environment constrain long-term securitization and contribute to reversing short-term securitization trends in O&G supply chains. Nevertheless, as demonstrated by type II inputs (Section 5.2.2), even the institutional environment largely opposed to securitization can be vulnerable to securitizing actors' manipulations. In 1972 – 1984, Canada's O&G supply chains saw the rise of a dominant securitizing actor who then transformed into a policy broker. Ultimately, however, the heterogeneity of the policy arena minimizes securitization trends. Type III inputs (Section 5.2.3) reveal the key role of provincial-level actors in the construction

and modification of the institutional arrangement governing oil and gas supply chains. Given their significant power as the policy-makers, regulators and administrators of the O&G sector, the provinces are able to keep the federal government's intentions in check. Shaping the performance of the referent object, the institutional environment and the institutional arrangement have formed a liberalized oil and gas market with a unique history of the initial prevalence of foreign IOCs and a short-term government intervention through the national oil company. Finally, Section 5.2.4 discusses the key findings.

5.2 Canada's O&G Supply Chains in the Securitization Framework

5.2.1 Type I Inputs: Institutional Ecosystem

5.2.1.1 Embedded Institutions

As the deepest level of the institutional ecosystem, for centuries, embedded institutions were laying the cultural foundation for future structural political, economic and social choices of the institutional environment that came about in 1867 with the establishment of the modern Canadian state.

Similar to the other New World states, foreign embedded institutions transplanted from the Old World displaced indigenous cultural values, norms and traditions as Europeans settling on the vast lands of North America overwhelmed the sparse and largely disconnected groups of indigenous populations. Europeans brought with them many features of their home embedded institutions, such as respect for the state authority, acceptance of social hierarchy, traditionalism, and conservatism.⁴³⁵

Although indigenous embedded institutions' traits were largely overridden by the foreign ones, they did contribute to the development of Canadian cultural identity.

⁴³⁵ Seymour Martin Lipset, *Continental divide: the values and institutions of the United States and Canada* (New York: Routledge, 1990); Kenneth D. McRae, "The Structure of Canadian History," in *The founding of new societies*, ed., Louis Hartz, pp. 219-74 (New York: Harcourt, Brace & World, 1964); W. L. Morton, *The Canadian identity* (Madison: University of Wisconsin Press, 1961).

Arguably, the harsh northern nature predisposed Europeans and Native Americans to cooperation more than a milder climate did in the United States.⁴³⁶ Acceptance of a wider variety of societal actors promoted the practice of negotiation and compromise, and, at the same time, led to the rejection of the idea of a “dominant nation-state imposing its will.”⁴³⁷

In addition to the European settlers and indigenous population, embedded institutions of the United States played a role in the formation of Canada’s institutional identity. It is not at all surprising that the US, the statehood of which dates back to 1776, would be influential in the development of its neighbor. However, Canadians tend to think of themselves as “un-American,” or opposing US values.⁴³⁸ This attitude provides partial explanation for core Canadian values such as preference for statism, conservatism, order and well-defined hierarchy.

Thus, the combination of multiple elements of originally independent embedded institutions resulted in a complex and contradictory institutional environment inside the boundaries of the modern Canadian state. Some of the resulting contradictions inherent in the institutional environment include the ones between Francophone and Anglophone Canada (autonomy vs. integration), between federal and provincial governments (overarching oversight vs. local control), and between heavy government presence in economic and social affairs co-existing with a strong private sector across various economic sectors.

⁴³⁶ John Ralston Saul, *Reflections of a Siamese twin: Canada at the end of the twentieth century* (Toronto, ON: Viking Canada, 1997); Harold Adams Innis, *The fur trade in Canada: an introduction to Canadian economic history* (Toronto: University of Toronto Press, 1956); Donald Grant Creighton, *The forked road: Canada, 1939-1957* (Toronto: McClelland and Stewart, 1976); Sherrill Grace, *Canada and the idea of North* (Montréal: McGill-Queen's University Press, 2002); Cole Harris and John Warkentin, *Canada before Confederation: a study in historical geography* (Montreal: McGill-Queen's University Press, 2000); John M. Murrin, "A Roof without Walls: the Dilemma of American National Identity," in *Beyond confederation: origins of the constitution and American national identity*, eds., Richard R. Beeman, Stephen Botein and Edward Carlos Carter, 333-48 (Chapel Hill: University of North Carolina Press, 1987).

⁴³⁷ Saul, *Ibid.*, 81, 106.

⁴³⁸ Lipset, *Ibid.*; Blair Fraser, *The search for identity: Canada, 1945-1967* (Garden City, NY: Doubleday, 1967); Frank H. Underhill, *In search of Canadian liberalism* (Toronto: Macmillan Co. of Canada, 1960).

5.2.1.2 Institutional Environment

Affected by the demographic, sociocultural, global and other trends, Canada's embedded institutions continue to influence and be influenced by the institutional environment and sector-specific institutional arrangements. The legacy of Canada's multifaceted embedded institutions is reflected in the country's institutional framework. The institutional environment is underpinned by the national Constitution and is centered around the interaction between three co-dependent branches of government within the parliamentary democracy framework, with the Crown – whose role arises from the fact that Canada is also a constitutional monarchy – located on the periphery.

The Crown

The Queen of Canada⁴³⁹ is the head of state in charge of the executive branch of government. Similar to other constitutional monarchies, the Queen's role in Canadian policy-making is symbolic, and the Crown's influence on the institutional environment is minimal. However, the symbolism of the Crown is deeply rooted in Canada's embedded institutions. The monarch is an important part of Canadian identity because Her/His Majesty provides Canadians with "a collective sense of belonging."⁴⁴⁰ Moreover, both federal and provincial lands are referred to as Crown Land, and natural resources are the property of the Crown. Oil and natural gas resources are no exception; they are owned by the Crown and leased to domestic and foreign companies for development.

Federal and Provincial Governments' Powers Vested in the Constitution

The Constitution of Canada is a body of legal documents rather than a single supreme

⁴³⁹ The title was formally established by the Royal Style and Titles Act (1953). It is "a role independent of that [of the] Queen of the United Kingdom and the other Commonwealth realms" (See "The Monarch," Government of Canada (October 16, 2015) and Scott Nicholas Romaniuk and Joshua K. Wasylciw, "Canada's Evolving Crown: From a British Crown to a "Crown of Maples"," *American, British and Canadian Studies Journal* 23, no. 1 (2014).)

⁴⁴⁰ "The Monarch," *Ibid.*

law due to the Canadian colonial past. Prior to completing the patriation process and achieving its legislative independence with the passage of the *Constitution Act, 1982*, the country was governed by British laws, which could be amended only by the acts of the British Parliament, the most significant of which was the *British North America Act (1867)* (BNA Act).⁴⁴¹ The BNA Act defined the sources of the Constitution of Canada,⁴⁴² sketched out the boundaries of the modern Canadian state, and established two essential pillars of the Canadian institutional environment, namely federal and parliamentary systems. While Canada became a fully sovereign state with the implementation of the *Constitution Act, 1982*, the role of the Queen of Canada as the head of state remained unchanged.

The rights and responsibilities of the federal and provincial governments in the management of non-renewable natural resources, including oil and gas, were already delineated in the *Constitution Act, 1867*. Initially applicable to the original four provinces in the Canadian confederation, the law included all ten provinces by 1949.⁴⁴³ Section 109 of the Act states that provinces have ownership rights over their “lands, mines, minerals, and royalties.”⁴⁴⁴ Section 92 details provinces’ exclusive

⁴⁴¹ The *Constitution Act, 1982* renamed the British North America Act (1867) as the *Constitution Act, 1867*.

⁴⁴² The *Constitution Act, 1982* defined the Constitution of Canada as consisting of:

(a) the *Canada Act 1982* (passed by the UK Parliament to enact the Constitution Act, 1982.) inclusive of the Canadian Charter of Rights and Freedoms (which makes sure that civil rights and liberties of Canadian citizens are protected by the Constitution; it has also added judicial checks to the existing legislative checks for “moderating influences in the political system.” (See Dennis Baker and Rainer Knopff, “Charter Checks and Parliamentary Balances,” *Constitutional Forum* 16, no. 2 (2007), 76) and the rest of the *Constitution Act, 1982*,

(b) the *Constitution Act, 1867* as well as 29 other Acts and Orders, and

(c) any amendments that have been made to (a) and (b) (Constitution Act, 1982, Section 52(2)).

⁴⁴³ The original four provinces included Ontario, Quebec, Nova Scotia, and New Brunswick. British Columbia (British Columbia Terms of Union (1871) formerly known as Order of Her Majesty in Council admitting British Columbia into the Union (May 16, 1871)) and Prince Edward Island (Prince Edward Island Terms of Union (1873) formerly known as Order of Her Majesty in Council admitting Prince Edward Island into the Union (June 26, 1873)) provinces joined the original four in 1871 and 1873, respectively. The *Constitution Act, 1930* (Since the UK still had legal control over Canada, the *Constitution Act, 1930* was passed by the British Parliament in order to ratify *Natural Resources Acts*, which were a row of agreements between the federal government and the newly established provinces of Alberta, British Columbia, Manitoba and Saskatchewan, designed to transfer control over land and natural resources from federal to provincial governments.) granted provincial status to Manitoba, Alberta and Saskatchewan, whose natural resources had been under federal government’s control since the enactment of Dominion Lands Act in 1872. Newfoundland received provincial status only in 1949 (The *Newfoundland Act* (1949)).

⁴⁴⁴ Constitution Act, 1867. Section 109.

legal powers with regards to non-renewable natural resources. These include exploration, development, conservation, and management of resources⁴⁴⁵; and their exports “to another part of Canada.”⁴⁴⁶ Provinces are also given exclusive direct taxation powers.⁴⁴⁷

Unlike the ten provinces, three territories – Northwest Territories, Nunavut and Yukon – derive their powers from the federal government and not the Constitution. Thus, self-governance of the territories is limited compared to that of the provinces, although it has evolved significantly in the last few decades. The land and natural resources of the territories are under the federal government’s control.

The responsibilities of the federal government are stated in Section 91 of the *Constitution Act, 1867*. The federal government is “to make laws for the peace, order, and good government of Canada,”⁴⁴⁸ to regulate “trade and commerce,”⁴⁴⁹ to raise money through taxes⁴⁵⁰, and to regulate other subject areas beyond provincial jurisdiction⁴⁵¹. Finally, the federal government retains exclusive legislative authority over “Indians, and Lands reserved for the Indians.”⁴⁵²

With regards to land and its significance for upstream oil and gas sector, one more category of land owned by the federal government is worth mentioning. Frontier Lands are not defined in the Constitution of Canada, but they are governed by the same principles of the Constitution as other federal Crown Lands. Frontier lands are legally defined by the Canada Petroleum Resources Act and include Northwest Territories, Nunavut, Sable Island, their submarine areas, and the continental shelf of

⁴⁴⁵ Ibid., Section 92A(1).

⁴⁴⁶ Ibid., Section 92A(2).

⁴⁴⁷ Ibid., Sections 92 (2), 92A (4a).

⁴⁴⁸ Ibid., Section 91.

⁴⁴⁹ Ibid., Section 91 (2).

⁴⁵⁰ Ibid., Section 91 (3).

⁴⁵¹ Ibid., Section 91 (29).

⁴⁵² Ibid., Section 91 (24). According to Statistics Canada (2011), there are 3,100 Indian reserves across Canada. Also, there are over 630 recognized First Nations governments (bands) across Canada, representing the population of more than 850,000 people.

Canada.⁴⁵³

Canadian constitutional documents defining the powers of the federal and provincial governments contribute to conflicting nature of the federal system and, at the same time, to long-term stability in this environment. On the one hand, the distribution of powers makes federal and provincial governments “coequal,”⁴⁵⁴ meaning that their jurisdictions often overlap, that tension between different governments is common, and that “bold”⁴⁵⁵ federal initiatives are rare.⁴⁵⁶ Moreover, governments can easily ignore their obligations in intergovernmental agreements because they are accountable to their respective constituencies and legislatures but not to one another.⁴⁵⁷ “Demonstration of the power and determination” by one government to another in times of intergovernmental disagreement is part of the bargaining process which helps both sides achieve desired outcomes and better terms.⁴⁵⁸ Also, dispersed responsibilities and required intergovernmental consultations create “many lags in making decisions” (i.e., obtaining a regulatory approval for the construction of a pipeline), which sometimes help reduce economic costs and moderate policy actors’ extreme views.⁴⁵⁹ Finally, despite disagreements with provincial governments, the ultimate goal of the federal government is to reconcile the interests of 10 provinces and 3 territories under the umbrella of the federal democracy.

⁴⁵³ Government of Canada, *Canada Petroleum Resources Act* (1985).

⁴⁵⁴ IEA, “Energy Policies of IEA Countries – Canada 2015 Review,” 45.

⁴⁵⁵ Fen Osler Hampson, *Forming economic policy: the case of energy in Canada and Mexico* (New York: St. Martin's Press, 1986), 106.

⁴⁵⁶ Ian McDougall, “Energy, Natural Resources, and the Economics of Federalism: National Harmony or Continental Hegemony?” in *The Future of North America: Canada, the United States, and Quebec Nationalism*, eds., Elliot J. Feldman and Neil Nevitte (Cambridge, MA: Center for International Affairs, Harvard University, 1979), 173-174; Bruce F. Willson, *The energy squeeze: Canadian policies for survival* (Toronto: J. Lorimer in association with the Canadian Institute for Economic Policy, 1980), 9; Hampson, *Ibid.*, 104-5; Bruce G. Pollard, “Canadian Energy Policy in 1985: Toward a Renewed Federalism?” *Publius* 16, no. 3 (1986), 173-174; L. S. Wilson, Robin W. Boadway and Paul A. R. Hobson, “Intergovernmental Fiscal Relations in Canada,” *Canadian Public Policy / Analyse de Politiques* 20, no. 2 (1994), 4.

⁴⁵⁷ D. Macdonald and Matthew Lesch, “Competing Visions and Inequitable Costs: the national energy strategy and regional distributive conflicts,” *Journal of Environmental Law and Practice* 25 (2013), 13-4.

⁴⁵⁸ John F. Helliwell and Robert N. McRae, “Resolving the Energy Conflict: From the National Energy Program to the Energy Agreements,” *Canadian Public Policy / Analyse de Politiques* 8, no. 1 (1982), 22.

⁴⁵⁹ John F. Helliwell, “Canadian Energy Policy,” *Annual Review of Energy* 4, no. 1 (1979), 176.

The Parliamentary Framework: Party Politics and Coalition Building

While Canada's parliamentary system is modeled after the Westminster system and accounts of its description and analysis are abound,⁴⁶⁰ this section focuses only on the aspects relevant to the study of the institutional environment and securitization processes. Three aspects of the parliamentary system stand out with respect to the governance of oil and gas supply chains in Canada: the role of the Cabinet, party politics and coalition building between the parties in the Parliament.

First, the Cabinet is a very powerful representative of the federal government. All ministerial, agency and other organizations' decisions are finalized only upon Cabinet approval. Even the National Energy Board (NEB), known as "an independent federal regulatory tribunal"⁴⁶¹ has to receive Cabinet approval before its decisions can be implemented. In the 1970s, when the federal government exercised increased control over oil and natural gas prices and exports, the NEB saw a few of its major functions transferred to the Cabinet, including export permits issuance duty in 1973 and price regulation in 1975.⁴⁶²

Second, Canada's political parties' ideological leanings create a "linkage between a party and resource policy."⁴⁶³ With regards to the oil and gas sector management, differences arise from the parties' perspectives on the degree of state participation in the industry as well as the division of economic benefits between the province and the industry (and the federal government). For instance, parties in producing provinces, regardless of their ideology, would like to see their provincial economies benefitting from resource development, but their views on how to achieve this objective diverge

⁴⁶⁰ C. E. S. Franks, *The Parliament of Canada* (Toronto: University of Toronto Press, 1987); *Maureen McTeer, Parliament: Canada's democracy and how it works* (Canada: Random House of Canada, 1995); D.C. Docherty and S. White, "Parliamentary Democracy in Canada," *Parliamentary Affairs* 57, no. 3 (2004): 613-29; Eugene A. Forsey, "How Canadians Govern Themselves" Library of Parliament, 9th ed (February 2016).

⁴⁶¹ Government of Canada, *National Energy Board*, Website.

⁴⁶² Bruce G. Doern and Monica Gattinger, *Power switch: energy regulatory governance in the twenty-first century* (Toronto: University of Toronto Press, 2003), 99.

⁴⁶³ Marsha A. Chandler, "The politics of provincial resource policy," in *The Politics of Canadian public policy*, eds., Michael M. Atkinson, and Marsha A. Chandler (Toronto: University of Toronto Press, 1983), 43-44.

significantly. The left (Liberal Party) is generally seen as leaning towards greater government intervention and participation in the oil and gas sector, while the right (Conservative Party⁴⁶⁴) promotes free-market principles.⁴⁶⁵ Despite the preference of the left for greater government involvement, all parties “share a commitment to a market economy... based on private property ownership.”⁴⁶⁶

Third, coalition building is an important instrument for a ruling party in control of a minority government. But alliances with other parties can be costly because compromises have the capability to seriously skew the direction of the policy. If the minority government party’s ally has a securitization agenda, the coalition can give rise to a policy broker. For example, creation of a national oil company was never on the agenda of the Liberal party. However, the party was able to secure only a minority government in the 1972 federal election and was forced to form an alliance with the New Democratic Party (NDP). The demands of the NDP in the coalition were *partly*⁴⁶⁷ responsible for the Liberal government’s December 1973 decision to create a national oil company.⁴⁶⁸ Thus, minority governments are more vulnerable to crises, are dependent on the interests of their allies, and tend to focus on short-term micro-political decisions while avoiding any bold initiatives that would not be tolerated by the strong opposition (See Figure 5.5).

⁴⁶⁴ In 1942 – 2003, the party’s official name was Progressive Conservative Party.

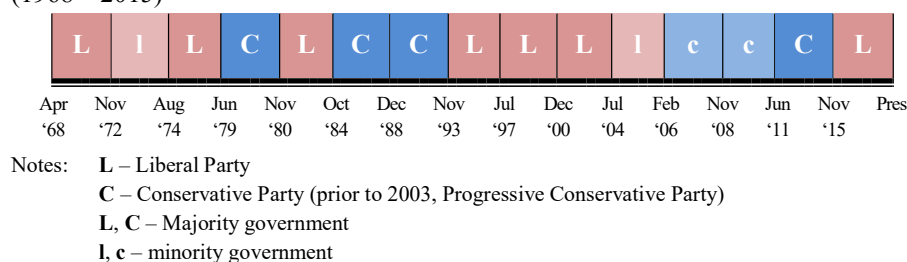
⁴⁶⁵ Chandler, *Ibid.*, 43-4.

⁴⁶⁶ Chandler, *Ibid.*, 52-3.

⁴⁶⁷ The other influential factors include the effect of the 1973 oil crisis which resulted in perception of decreased security of supply by the government, and bureaucratic politics (Allan Tupper and G. Bruce Doern, *Public corporations and public policy in Canada* (Montreal: Institute for Research on Public Policy, 1981), 107) driven by the desire of the federal departments to extend their control of the energy sector.

⁴⁶⁸ Tupper and Doern, *Ibid.*, 106-9; D. J. Blair, "Energy Security and Canadian Energy Policy: Independent versus Collective Action," *Millennium - Journal of International Studies* 11, no. 2 (1982), 131; Hampson, *Ibid.*, 90-1.

Figure 5.5: Liberal Party vs. Conservative Party Rule in the Federal Government (1968 – 2015)



5.2.1.3 Horizontal Linkages

In Canada's institutional ecosystem, horizontal linkages are apparent at all institutional levels. At the level of embedded institutions, a number of previously independent institutions from different ecosystems blended to form the foundation of Canada's unique institutional environment.

At the institutional environment level, components of one system of parliamentary democracy and constitutional monarchy are both complementary and overlapping. The institution of the Crown is weak and complements the Parliament. At the same time, the equally powerful federal and provincial governments, designed to complement one another, often overlap due to their inseparable Constitutional duties.

At the level of the institutional arrangement, initially, a group of institutions governing Canada's oil and gas sector developed as relatively independent in two ways. First, they were independent from the institutions governing other non-renewable (coal) and renewable (hydro, nuclear) energy resources. Second, provincial oil and gas institutions are independent from federal institutions, with the exception of the management of inter-provincial oil and gas infrastructure, which fell under the federal government's mandate.

However, a closer look at the *group* of institutions governing Canada's oil and gas sector reveals the complementarity tendencies between institutions governing various aspects of the sector. On both federal and provincial levels, proper management of

O&G supply chains has always required close cooperation between finance ministries, land regulators, transportation authorities, agencies managing resource development, safety watchdogs, as well as consideration of social and environmental objectives. The latter two, social and environmental issues, gained prominence only in the 1990s and, as newcomers to the O&G sector playing field, have caused some tensions because the objectives they brought in diverge from the traditional objectives of the sector.

Besides, once independent from other parts of energy-related policy-making, institutions governing oil and gas sector are now part of a more complex institutional arrangement. This tendency has been most apparent in the attempts of provincial and, especially, federal governments to bring together ‘energy’ and ‘environment’ as two increasingly interdependent policy fields. The federal government can be credited as the initiator of these attempts, having joined the Kyoto protocol (ratified in 2002)⁴⁶⁹ and having introduced the Clean Air Act (2006)⁴⁷⁰.

Nevertheless, oil and gas remained largely the domain of provincial governments. The federal government, with the exception of areas where aboriginal interests are involved, has applied environmental regulations very loosely.⁴⁷¹ The provinces have taken over the environmental policy mandate from the federal government, which has been expressed in multiple provincial level initiatives directly aimed at regulating the environment. Provinces that do not produce much or any O&G⁴⁷² “have been particularly active on climate change issues [as they] envision a potential role for

⁴⁶⁹ The Protocol was ratified by the Canadian Parliament in 2002, despite provincial “dislike of the agreement” and provincial campaigns directed at weakening public support for it (Keith Brownsey, “The New Oil Order: The Post Staples Paradigm and the Canadian Upstream Oil and Gas Industry,” *Canadian Political Science Review* 1, no. 01 (2007), 101).

⁴⁷⁰ The Clean Air Act was to serve as the basis for “integrated, nationally-consistent policy approach” to including environmental concerns into the overall energy objectives (Government of Canada, *Notice of intent to develop and implement regulations and other measures to reduce air emissions*, Canada Gazette, Part I (October 21, 2006), 2).

⁴⁷¹ Mark S. Winfield and Clare Demerse, “13. Climate Change and Canadian Energy Policy,” *A Globally Integrated Climate Policy for Canada* (2007), 4.

⁴⁷² including Quebec, Manitoba and British Columbia.

themselves as low-carbon energy exporters.”⁴⁷³ Even producing provinces, which would be expected to resist environmental regulations, made significant progress. Alberta “became the first jurisdiction in North America to pass climate change legislation requiring large emitters to reduce greenhouse gas (GHG) emissions.”⁴⁷⁴ All provinces, at least to some extent, enhanced their climate change strategies. Finally, the federal government exiting the Kyoto protocol, but provincial governments showing progress towards meeting international-level climate objectives demonstrates that the federal government finally agreed to delegate this responsibility to the provinces.

5.2.1.4 Institutional Ecosystem – Policy Arena Link

In the institutional ecosystem, the most foundational levels of institutions with the exception of the ones at the level of the institutional arrangement are too broad in scope and too removed from the day-to-day policy decisions to be directly affected by or affect sudden changes in securitization processes which are related to specific referent objects like oil and gas supply chains. However, they are the enablers, or in case of Canada, the sources of constraint, of longer-term securitization processes. Thus, Canada’s embedded institutions and the institutional environment offer a partial explanation for the lack of securitization of national oil and gas supply chains, and also help understand why heightened securitization periods have been short-lived and easily reversible.

On the institutional environment level, complementary and even more so overlapping institutions have the ability to stall securitization processes. Heterogeneity of institutions with coinciding as well as contradictory objectives creates a lot of work for a potential securitizing actor who is trying to mobilize resources or create a shared

⁴⁷³ Winfield and Demerse, *Ibid.*, 8-9.

⁴⁷⁴ Emissions Reduction Alberta. *About*. <http://ccemc.ca/about/>.

threat perception. But as Canadian experience of 1976 policy of self-reliance demonstrated, the institutional environment can be vulnerable to securitizing actors' manipulations. Self-reliance is an example of a vague objective put forward by the securitizing actor but accepted by policy stakeholders with differing objectives of their own as a means to their individual ends.

Thus, the institutional ecosystem consists of elements, which have the potential to enable and constrain securitization processes. It also affects the type of securitizing actor likely to emerge in certain conditions. Finally, the relationship between the institutional ecosystem and policy arena is not one way. Policy arenas affect the institutional ecosystem too, although the institutional arrangements are more likely to be immediately affected by the policy actors' decisions than deeper levels of the institutional ecosystem. Policy arena and its participants governing oil and gas supply chains are the subject of the next section.

5.2.2 Type II Inputs: Policy Arena

5.2.2.1 Overview of Policy Actors

The governance of oil and gas supply chains in Canada exhibits characteristics generally shared by federal systems; reflects the North American economic integration experience; and underscores the importance of country-specific attributes including geography, politics, economics and attitudes towards the private sector. All three groups of factors combined, Canada's oil and gas supply chains management represents a unique blend of policy actors: the federal and provincial governments, the US government based on bilateral and NAFTA commitments, the oil and gas companies, and public interest groups.

Federal and Provincial Governments as Equal Policy Actors

Canada's complex Federal – Provincial relations on the level of the institutional environment are projected onto the oil and gas policy arena. For both the federal and provincial governments, the rights and responsibilities towards the sector arise from the Constitution that was examined in the section on Canada's institutional ecosystem (See Section 5.2.1.2). Provincial governments are the mineral resources' owners in their respective provinces,⁴⁷⁵ while the federal government exercises resource ownership on Canada Lands⁴⁷⁶ and is responsible for regulating interprovincial trade⁴⁷⁷. As one of the most decentralized federations in the world⁴⁷⁸, Canada has gone through the ups and downs of dual-level governance. On the one hand, these have included comparatively short and infrequent periods when federal and provincial interests coincided, and the level of conflict was thus reduced. On the other hand, there have been much more frequent situations of conflict. These resulted in intergovernmental consultations, legal battles over jurisdictions, fiscal battles over taxation powers, and on one occasion went as far as a prolonged stalemate⁴⁷⁹.

While the evolution of various administrative units (ministries, agencies, etc.) is detailed later in this chapter, in the section on the institutional arrangement governing oil and gas supply chains (see Section 5.2.3.2), Table 5.1 provides an overview of the major federal and provincial level actors today (See Table 5.1).

⁴⁷⁵ The Constitution of Canada, Section 109.

⁴⁷⁶ Relevant to the oil and gas industry, *Canada Lands* include the Yukon, Northwest Territories and Nunavut, as well as Canada's offshore area (See "About Canada Lands," Natural Resources Canada (December 19, 2016)). However, their governance is not at all straightforward. While the federal government (through the Department of Indian Affairs and Northern Development) is in charge of oil and gas supply chains management in Northwest Territories, Yukon has received control of the territory's land-based resources in 1998 (Peter R. Sinclair, *Energy in Canada* (Don Mills, Ontario: Oxford University Press, 2011), 44).

⁴⁷⁷ S91-2 of the BNA Act (1867). Government of Canada, *Constitution Acts, 1867 to 1982*. <http://laws-lois.justice.gc.ca/eng/const/>.

⁴⁷⁸ L. Thorlakson, "Patterns of Party Integration, Influence and Autonomy in Seven Federations," *Party Politics* 15, no. 2 (2009): 157-77; Karen Bakker and Christina Cook, "Water Governance in Canada: Innovation and Fragmentation," *International Journal of Water Resources Development* 27, no. 2 (2011): 275-89; David Cameron and Richard Simeon. "Intergovernmental Relations in Canada: The Emergence of Collaborative Federalism." *Publius* 32, no. 2 (2002): 49-72; Pollard, *Ibid*.

⁴⁷⁹ This occasion refers to the federal government – Alberta provincial government stalemate of 1980 – 1981 as a consequence of the National Energy Program (NEP) implemented unilaterally by the federal government.

Table 5.1: Federal and Provincial Policy Actors in Canadian O&G (as of 2015)

Federal Policy Actors	Provincial Policy Actors
The Cabinet of Canada	<p>Alberta: Alberta’s Energy Resources Conservation Board + Alberta Public Utilities Board + Alberta Geological Survey = Alberta Energy and Utilities Board (AEUB)</p> <p>2008 – 2013: Energy Resources Conservation Board (ERCB)⁴⁸⁰</p> <p>2013 – Present: Alberta Energy Regulator</p> <p>1921 – Present (under AER): Alberta Geological Survey</p> <p>British Columbia: O&G Commission (BCOGC)</p> <p>Manitoba: Public Utilities Board (MPUB)</p> <p>New Brunswick: Energy & Utilities Board (NBEUB)</p> <p>Northwest Territories: the Office of the Regulator of O&G Operations (OROGO)</p> <p>Nova Scotia: Utility and Review Board (NSUARB)</p> <p>Ontario: Ontario Energy Board (OEB), Technical Standards and Safety Authority (TSSA), Ministry of Environment and Climate Change</p> <p>Saskatchewan: SaskOil (Crown corporation) in 1974 – 1986; Wascana Energy Inc (public company) in 1986 – 1997; Nexen in 1997 - present Saskatchewan Ministry of Economy</p> <p>Quebec: 12 agencies involved in O&G governance</p>
1935 – Present: Transport Canada	
1948 – 1971: Advisory Committee on Northern Development (ACND)	
1959 – Present: National Energy Board (NEB)	
1953 – 1966: Department of Northern Affairs and National Resources	
1966 – Present: Department of Indian Affairs and Northern Development (DIAND, or Indigenous and Northern Affairs Canada)	
1971 – Present: Environment and Climate Change Canada (EC)	
1966 – 1995: Department of Energy, Mines and Resources (EMR)	
1995 – Present: Natural Resources Canada (NRCan)	
1990 – Present: Transportation Safety Board of Canada (TSB)	
<p>Federal - Provincial Policy Actors (offshore petroleum boards, 1987 - Present)</p> <p>Canada – Newfoundland and Labrador Offshore Petroleum Board (C-NLOPB)</p> <p>Canada – Nova Scotia Offshore Petroleum Board (C-NSOPB)</p>	

⁴⁸⁰ Alberta Petroleum and Natural Gas Conservation Board was originally established in 1938 (See David Finch, "The History of the Conservation Board," Alberta Oil Magazine (February 23, 2012)).

O&G Companies: from Data Sources to Industry Lobbyists

Canada's oil and gas industry participants are given due attention later in this chapter, in the section on O&G sector performance (See Section 5.2.3.2). With regards to the policy arena, it is worth noting their role as influential stakeholders in the policy process alongside government actors. The majority of these influential stakeholders are privately-owned, both foreign and domestic, companies. In addition to the private sector, a short-lived Canadian national oil company, Petro-Canada (1976 – 1991⁴⁸¹), assumed some policy functions, too.

Initially, O&G companies exercised influence as the leading information providers to provincial and federal governments.⁴⁸² The governments relied on private sector data for forecasting. This role allowed companies to participate in governments' agenda-setting through direct engagement in energy trends forecasting. Eventually, the private sector was joined and later completely replaced by government agencies designed to collect and analyze O&G sector data.

Once 'data provider' option of participating in the policy-making process was exhausted, private companies were left with the only way to influence policy-making – lobbying. For instance, the Canadian Association of Petroleum Producers (CAPP) is the single most powerful oil and gas lobby in the country, and its history can be traced back to the 1920s.⁴⁸³ Other major oil industry associations include Canadian Energy Pipeline Association (CEPA) and the Canadian Association of Oilwell Drilling Contractors (CAODC). In the gas sector, Canadian Gas Association (CGA), Explorers and Producers Association of Canada (EPAC), and Canadian Society for

⁴⁸¹ The federal government initiated privatization of Petro-Canada in 1991. In 2004, the government sold the remaining 19% of the company in its ownership (Government of Canada, *Notice of intent*, 5).

⁴⁸² Ghislaine Cestre, *Petro-Canada: A National Oil Company in the Canadian Context* (Committee on Energy and Natural Resources, U.S. Senate, 1977), 6; John Bridger Robinson, "Pendulum Policy: Natural Gas Forecasts and Canadian Energy Policy, 1969–1981," *Canadian Journal of Political Science* 16, no. 02 (1983), 304.

⁴⁸³ Canadian Association of Petroleum Producers. "Our History." CAPP Website. <http://www.capp.ca/about-us/our-history>.

Unconventional Resources (CSUR) are some of the most well-known industry amalgamations.

Public Interest

While corporate interests of oil and gas players in the Canadian market are generally considered very powerful sources influencing government policies, they are not the only interests shaping the federal and provincial governments' policy-making processes. Public interest has been increasingly more represented as well. It includes opinions of aboriginal and environmental groups among others, whose access to oil and gas decision-making was very limited until the late 1970s. Today aboriginal groups are vocal with regards to O&G development and pipeline construction,⁴⁸⁴ are actively involved in coalition-building with like-minded aboriginal and non-aboriginal interest groups in Canada and the US,⁴⁸⁵ and are fighting for inclusion in the regulatory processes.⁴⁸⁶

Moreover, the government co-organizes research and consultation groups on various contentious subjects. For example, in 1993, the Alberta government brought together industry and government representatives – the National Oil Sands Task Force – in order to develop a framework for efficient oil sands development.⁴⁸⁷ Some other examples of multistakeholder collaboration are briefly discussed in the section on administrative arrangements (Section 5.2.3.1).

The Role of External Actors in Canadian O&G Supply Chains Management

The United States and NAFTA

Evolving economic integration on the North American continent and US energy policy in particular have played a major part in shaping the Canadian oil and gas

⁴⁸⁴ Jason Markusoff and Martin Patriquin, "Why Trudeau and the oil industry are losing the pipeline battle," *Macleans.ca* (September 29, 2016).

⁴⁸⁵ Ross Marowitz, "U.S. and Canadian aboriginal groups sign treaty to oppose oil sands development," *Vancouver Sun* (September 23, 2016).

⁴⁸⁶ Gordon Jaremko, "Canada's Liberal Government Expands NEB to Accommodate Aboriginal Input, Review Energy East," *Natural Gas Intelligence* (October 21, 2016).

⁴⁸⁷ Dan Woynilowicz, Chris Severson-Baker and Marlo Reynolds, "Oil Sands Fever: The Environmental Implications of Canada's Oil Sands Rush," *Pembina Institute* (November 2005).

policy arena. The factors that contributed to the interdependence of the US and Canada are: a high concentration of US companies in Canada as (co-)owners of upstream assets and pipeline infrastructure dating back to the mid-19th and 20th centuries respectively, the proximity of the US market ready to consume Western Canadian natural gas, oil and petroleum products as early as 1960s, and the repeal of restrictions on Canadian oil imports in 1972. The more or less unrestricted flow of oil and gas from Canada to the US took care of Canada's concerns of securing market access for its resources. Many, if not all, policy actors in Canada's O&G supply chain management did not believe these supply chains were under imminent threat.

However, US – Canada bilateral cooperation in oil and gas was not always smooth. The partnership ran into difficulties several times in the late 1960s – early 1980s. This was partly due to changes in Canada's domestic conditions which gave rise to securitization trends and partly, although to a much smaller degree, due to the competition for resources, their transportation, and end energy users between the two countries. Competition between the US and Canada in the energy sector was most apparent when oil was discovered in Alaska's Prudhoe Bay in 1968. The discovery posed a direct threat to Canada as the major US oil supplier. In order to protect Canadian interests and justify the US need for Canadian oil, Canada's National Energy Board (NEB) released a forecast a year later arguing that supplies originating from Alaska would not be sufficient to meet US demand in the long term.⁴⁸⁸

Both heightened nationalist sentiment and propensity for increased securitization were precipitated by drastic changes in Canada's oil and gas reserves. In just a few years, between 1969 and 1971/1972, the status of oil and gas changed from desired items among national exports to quickly depleting resources of national significance. Canada's oil exports to the US dropped rapidly with the ultimate objective of being discontinued, while natural gas exports were highly regulated. By the mid-1980s, a

⁴⁸⁸ Robinson, *Ibid.*, 304.

turnaround in Canada's perceptions on the size of its oil and gas reserves and the overall policy direction – from self-reliance to market liberalization – led to the normalization of US – Canada relations.

Despite some setbacks along the way and episodes of decreased cooperation, the two countries' continued efforts in aligning their respective multi-level policies culminated in the development of sophisticated and fully liberalized oil and gas markets by the mid-1990s. Oil and gas trade flows were an integral part of the 1988 Canada – US Free Trade Agreement (FTA) and 1994 NAFTA agreements, and they can no longer be regulated solely by a single provincial or the federal government of Canada. Since continent-wide integration processes were formalized, it is hard to imagine a reversal of commitments among three interdependent economies of Canada, Mexico, and the US.

In the 21st century, North American integration deepened further with the three NAFTA signatories launching the Security and Prosperity Partnership in March 2005⁴⁸⁹, and establishing the Energy Ministers' Working Group on Climate Change and Energy in May 2015.⁴⁹⁰ The first initiative encompasses numerous areas of cooperation, but energy security and environmental protection are two of its priorities.⁴⁹¹ The second initiative aims at harmonizing the three countries' climate change adaptation and energy efficiency policies. In June 2016, NAFTA partners committed to reducing their methane emissions from the O&G sector.⁴⁹²

The most significant developments, illustrative of the deep integration between the North American neighbors, are the shale revolution in the US that started in 2009 and

⁴⁸⁹ "Security and Prosperity Partnership of North America," U.S. Department of State (March 23, 2005).

⁴⁹⁰ Leila Mead, "Canada, Mexico, US Partner on Climate Change and Energy," SDG Knowledge Hub (May 28, 2015).

⁴⁹¹ M. Angeles Villarreal and Jennifer E. Lake, "Security and Prosperity Partnership of North America: An Overview and Selected Issues," Congressional Research Service (May 27, 2009), 2.

⁴⁹² "Leaders' Statement on a North American Climate, Clean Energy, and Environment Partnership," Office of the Prime Minister of Canada (October 24, 2016). This commitment followed the US and Canada's joint announcement from March 2016 ("U.S.-Canada Joint Statement on Climate, Energy, and Arctic Leadership," The White House (March 10, 2016)).

the rejection of the Keystone XL Pipeline project by the US Presidential Administration in 2015. The shale revolution has changed gas trade flows, increased competition, and diminished Canadian gas exports to the US.⁴⁹³ The negative decision on the new pipeline route after over seven years of negotiations and reviews limits expected pipeline capacity and potential market access for the Canadian oil sands. Nevertheless, despite the new challenges, there have been no major conflicts or disruptions of oil and gas flows. The continental market is successfully adapting to new conditions and is pushing national energy policies to adjust as well.⁴⁹⁴

International Community: IEA and UN

While the United States has always been an influential stakeholder in Canada's oil and gas policy arena, both through bilateral and NAFTA ties, the role of other international organizations such as the OECD and the UN has not had a comparable effect on the country's oil and gas policy management. Thus, beyond NAFTA, the role of international organizations is minimal.

In 1974, the federal government made a decision – conditioned by Parliament's approval – to join the OECD's International Energy Agency (IEA).⁴⁹⁵ Unlike the majority of other OECD member-countries, Canada has been a net exporter of oil with the exception of a brief period in 1975 – 1979. Thus, except those years, it has not had to comply with the IEA's 90-day stockholding requirement.⁴⁹⁶ And when it had to (in 1975 – 1979), it did so on paper, but not in reality, for three reasons. First,

⁴⁹³ IEA, "Energy Policies of IEA Countries – Canada 2015 Review," 11, 122.

⁴⁹⁴ For example, the original Keystone pipeline operational since 2010 was extended in 2011 (Cushing Extension) and in 2014 (Keystone XL Southern Leg) (See Carrie Tait and Kelly Cryderman, "Keystone XL pipeline rejection sends a chill over Canada's energy industry," *The Globe and Mail* (November 07, 2015)). Canadian companies are also pursuing domestic provincial markets and access to export terminals for Alberta's oil sands via Energy East, Northern Gateway and Trans Mountain expansion pipelines.

⁴⁹⁵ The establishment of the IEA was triggered by the 1973 oil crisis. The agency was created by 16 founding members (as of 2014, there are 29 member-states) aspiring to establish a multilateral emergency response mechanism for events of short-term oil supply disruption.

⁴⁹⁶ International Energy Agency, "Chapter 4: Emergency Response Systems of Individual IEA Countries," *Energy Supply Security 2014*, Part 2 (2014), 120.

not all emergency stocks were held in eastern Canada where they would be needed in case of a disruption. Second, the required amount of stocks was based on a country's net imports, which was misleading in the case of Canada because the points of entry/exit of exports and imports were located in different parts of the country. Moreover, eastern Canadian refineries were not designed to handle west Canadian quality of crude oil.⁴⁹⁷ Third, the IEA's extremely complex oil-sharing system was scrutinized neither by the public nor by the Canadian government due to the lack of political motivations to do so.⁴⁹⁸

The UN gained some relevance, yet not much influence, in Canada's decision-making in the 1990s, when environmental issues climbed to the top of policy agenda in many countries around the world. Canada became a signatory to initiatives like the UN Framework Convention on Climate Change (UNFCCC) in 1992 and the Kyoto Protocol in 1997. However, Canada's actions with regards to balancing environmental and energy policies in the 2000s suggest that the country's policy actors have a strong preference for federal – provincial consultation in setting their targets and for the continentalist approach to energy policy-making over the international community approach. These preferences manifested themselves in Canada's withdrawal from the Kyoto Protocol in 2011.

5.2.2.2 Securitizing Actors and Policy Stakeholders

Put into a historical perspective, the federal – provincial government dynamics can be separated into a series of stages with different prevailing trends and corresponding effects on the securitization of oil and gas supply chains (See Table 5.2). The height of securitization of the country's oil and gas supply chains is the period between 1972 and 1981, and the federal government was the principal securitizing actor. During this

⁴⁹⁷ Blair, *Ibid.*, 135-6.

⁴⁹⁸ *Ibid.*

time, Canada first embarked on the search for self-sufficiency (1973 – 1976), later modified and framed as self-reliance (1976 – 1980), and complemented it with the idea of Canadianization of domestic oil and gas industry (1980 – 1981). Implementation of these priorities resulted in a nationalistic energy policy. Put forward by the federal government without any provincial consultation, this policy course clashed with some provinces' interests⁴⁹⁹ and led to a confrontation between the federal government and affected provinces.

Table 5.2: Federal – Provincial Governments Dynamics (1930 – 2015)

Period	Key Trends	Resulting Policy	As a result, securitization...
1930 – 1972	PGs are largely in charge Minimal FG involvement O&G sector export-oriented	Welcoming foreign investment and IOCs Export-oriented	n/a
1972 – 1980	Large-scale <i>direct</i> interventions by FG	Nationalistic	↗
1980 – 1981	FG – PGs stalemate over the NEP	Self-sufficiency (self-reliance)	↗
1981 – 1985	FG – PGs consultation processes	Export-oriented	↘
1986 - 1988	PGs as dominant regulators O&G sector liberalization	Export-oriented	↘
1988 - 1997	FG involvement through consultations with PGs and commitment to bilateral/continental agreements	Continentalist	↘
1997 - 2011	Multiple FG – PG initiatives FG as a signatory to a number of new multilateral initiatives beyond North America	Multilateralism Emphasis on environment and aboriginal affairs	↘
2011 – 2015	PGs as main drivers of regulatory changes		→

Source: Author

Notes: FG – federal government

PGs – provincial governments

⁴⁹⁹ especially those of Western Canada's provinces searching for bigger profits from exporting their resources than selling them to Eastern provinces

In addition to the federal and provincial governments, the actors discussed above have included O&G companies operating in Canada, public interest groups, the US, NAFTA, the IEA, and the UN. All of them can be put in a category of policy stakeholders, with the O&G companies and NAFTA exerting the most influence, and international organizations – the IEA and the UN – exerting the least influence.

Although the US has been an important stakeholder in Canada's O&G supply chains governance, it has not played a role of securitizing actor in Canada's oil and gas sector. This is largely because Canada's securitized oil and gas supply chains could potentially jeopardize the US interest of securing supplies of these resources from its neighbor. Domestic factors negatively affected US-Canada cooperation in the 1970s – early 1980s when Canada's oil and gas policy took a nationalistic turn. This is the same period when Canada's oil and gas supply chains were securitized by the federal government, for the first time in the country's history. As discussed above, US-Canada relations were normalized with the change in Canada's policy direction and oil and gas desecuritization by the mid-1980s. Thus, it is possible to say that US-Canada and later NAFTA cooperation helped keep potential securitization of Canada's oil and gas supply chains at bay.

5.2.2.3 Summary

The analysis of the O&G supply chains policy arena demonstrates actor heterogeneity that persists in Canada. The sheer number of participants, a variety of interests and objectives, as well as apparent links between provincial, federal, and international policy contexts have all contributed to minimizing securitization trends.

The 1972 – 1984 period of strengthened securitization processes in the management of O&G supply chains coincided with increased tensions between federal and provincial governments, their inability to compromise, and emergence of unilateral

decision-making on the part of the federal government. Whereas some provincial governments and the O&G sector strongly opposed securitization of any part of supply chains, initially, between 1973 and 1980, the federal government emerged as a dominant decision-maker “unconcerned with the other stakeholders’ reaction to its actions.”⁵⁰⁰ But the provinces’ ability to block federal decisions on the one hand and the federal government’s continued interest in pursuing securitization on the other forced the federal government to adapt. As a result of the 1980 – 1981 breakdown in federal – provincial communications, the federal government transformed into and played the role of a policy broker in 1981 - 1984 who was more willing to compromise.

Relying on the insights about Type I and Type II inputs, the next part of this chapter, Section 5.2.3, will explore Type III inputs – the institutional arrangement governing oil and gas supply chains and their interaction with the referent object’s performance.

5.2.3 Type III Inputs: Institutions – Referent Object Link

5.2.3.1 O&G Supply Chains Institutions Decomposed

Nested within Canada’s institutional environment with characteristics of a parliamentary democracy and a constitutional monarchy is the institutional arrangement governing oil and gas supply chains. It is complex but not convoluted; interdependent components of the legal framework, the policy framework, and administrative arrangements co-evolved into intricate, mature, and transparent institutions, and both the federal government and the provinces are the sources of continuity and change in legislation, policy initiatives and decisions on administrative design.

⁵⁰⁰ Chapter 3, Section 3.2.2.3 (Securitizing Actors Typology).

1947 – 1973: Harmony of Multi-Level Public and Private Interests

Ever since Canada entered the era of substantial oil production in 1947, the federal government has been in the difficult position of trying to reconcile various – often opposing – provincial interests, and balance them with the overarching national interest in the management of oil and gas supply chains.⁵⁰¹ Four types of federal-level administrative arrangements⁵⁰² – four departments, four statutory and other agencies, as well as one departmental corporation and one special operating agency⁵⁰³ (See Figure 5.6) – encompass a wide range of responsibilities,⁵⁰⁴ and interdepartmental conflict exists along with cooperation. The most serious conflicts date back to the 1960s – 1980s, such as the ones between Indigenous and Northern Affairs Canada (INAC) and other federal departments,⁵⁰⁵ Department of Energy, Mines and Resources (EMR, now Natural Resources Canada, NRCan) and the NEB,⁵⁰⁶ EMR and the Department of External Affairs.⁵⁰⁷ Provincial-level governance mirrors federal administrative arrangements. Provinces have departments parallel to the

⁵⁰¹ Sinclair, *Ibid.*, 25; Earle Gray, *The great Canadian oil patch* (Toronto: Maclean-Hunter, 1970), 3.

⁵⁰² The federal government of Canada, through the *Financial Administration Act*, distinguishes six types of federal-level organizations, but only four of them are directly relevant to the management of O&G supply chains.

⁵⁰³ The other two types of federal-level organizations are agents of Parliament and service agencies. For detailed description of each organizational type see "Glossary of Terms for Parliamentary Returns," Government of Canada, Privy Council Office (May 01, 2009).

⁵⁰⁴ from regulating export and import of energy, the complete life-cycle of pipelines, as well as traffic, tolls and tariffs applicable to these pipelines; monitor secure transportation of hydrocarbon resources on roads, by rail and pipelines; ensure safe and sustainable development of resources on federal lands, northern territories and aboriginal lands; promote interests of all Canadians including Aboriginal peoples; consider effects on the environment and design climate change adaptation measures; supply and analyze large amounts of information related to all aspects of O&G sector in Canada; and participate in technology and research development (NEB, NRCan, CEAA, EC, TC, INAC, StatCan and the following analyses of these agencies: Richard E. Hamilton, "Natural Gas and Canadian Policy" in *The Energy question; an international failure of policy*, eds., Edward W. Erickson and Leonard Waverman, Vol. 2 (Toronto: University of Toronto Press, 1974), 158; Cestre, *Ibid.*, 6; McDougall, *Ibid.*, 178; Helliwell, *Ibid.*, 195; Simon McInnes, "The Policy Consequences of Northern Development," in *The Politics of Canadian public policy*, eds., Michael M. Atkinson and Marsha A. Chandler (Toronto: University of Toronto Press, 1983), 249; Hampson, *Ibid.*, 100; Doern and Gattinger, *Ibid.*, 51-3, 95-6; Winfield and Demerse, *Ibid.*, 5; Sinclair, *Ibid.*; IEA, "Energy Policies of IEA Countries – Canada 2015 Review," 24 – 5, 35, 115.).

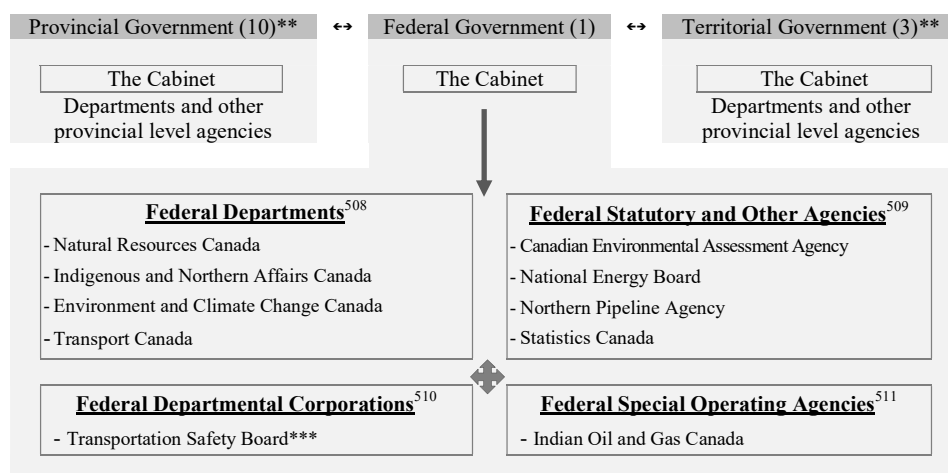
⁵⁰⁵ In the 1960s, Indigenous and Northern Affairs Canada (INAC) created as a way to coordinate federal policies in the North was unable to lead the multitude of federal departments because it was given only a provincial-type jurisdiction (Edgar J. Dosman, *The national interest: the politics of northern development 1968-75* (Toronto: McClelland and Stewart, 1975), 3, 9-10).

⁵⁰⁶ EMR was created later than the NEB and saw it as a competitor. The two departments fought for financing and influence throughout the 1970s and early 1980s (Bregha, *Ibid.*, 68-69; Doern and Gattinger, *Ibid.*, 96 – 100). In the 1980s, EMR suffered from internal conflict trying to reconcile its old objective of promoting industrial interests with its new objective of sustainable development (Tupper and Doern, *Ibid.*, 109).

⁵⁰⁷ During the same period, EMR also had disagreements with the Department of External Affairs over the nationalistic vs. continental direction of Canada's energy policy (Blair, *Ibid.*, 132-3).

federal ones. Energy, Environment and Climate Change, Northern Development, and Natural Resources are among provincial departments that are common across the board and have experienced conflicts similar to those between the federal-level departments.

Figure 5.6: Administrative Arrangements* of Canada's O&G Supply Chains Management Institutions (2015)



Source: Author

Notes: * This figure includes only the most relevant organizations; although the figure reflects the basic structure of Canada's O&G supply chain management, in reality, administrative arrangement has more levels of details (i.e., intergovernmental boards and interministerial councils/commissions, etc.)

** There are 10 Provincial and 3 Territorial Governments, and governance of O&G supply chains in each one of them is structured differently. Thus, governance on provincial/territorial level is not detailed in this figure.

*** Canadian Transportation Accident Investigation and Safety Board (Official abbreviation – TSB)

⁵⁰⁸ Departments are ministry-type bodies with the broadest policy mandates among all types of organizations. At the same time, they are the least autonomous type, under the control of the assigned Minister.

⁵⁰⁹ Statutory and other agencies have a more narrow area of responsibilities and are generally operational in nature. Despite the fact that they report to the Parliament through the responsible Minister, they have much more autonomy from the government than departments. For instance, the National Energy Board (NEB), which is the most significant federal body in the governance of O&G, communicates with the Cabinet through the Minister of Natural Resources (NRCan). Yet, it is completely independent from the federal department of Natural Resources Canada (NRCan).

⁵¹⁰ Departmental corporations are similar to statutory and other agencies in the level of their autonomy, but perform research, advisory, and administrative functions.

⁵¹¹ Special operating agencies (SOAs) are operating units within the department, but have separate accountability systems and are service-oriented. Created as part of the Indigenous and Northern Affairs Canada (INAC) in 1987, Indian Oil and Gas Canada received SOA status in 1993 in order to be able “to promote client-focused service delivery” (“History,” Government of Canada; Indigenous and Northern Affairs Canada; Communications Branch (September 29, 2010)).

The Federal government has embedded the East – West divide, preconditioned by the physical resource endowment and already established patterns of IOCs’ operations, into the national political and economic discourse with the passage of the National Oil Policy (NOP) in 1961. The NOP effectively split the country into two markets, west and east of the Ottawa Valley (the Borden Line).⁵¹² This decision was to benefit the West by providing it with access to domestic and foreign demand, and the East by allowing it to import supplies that would be cheaper than resources transported from the Canadian West. Canada as a whole would benefit by creating a healthy balance of payments between “cheap” imports and “expensive” exports.⁵¹³

In addition to different policy objectives, federal and provincial regulations have approached the O&G sector from different angles. The federal government is concerned with the management of resources on federal lands and ensuring uninterrupted flow of resources between provinces, while provincial governments, which set out to develop their legal frameworks for the management of oil and gas resources much earlier,⁵¹⁴ emphasize conservation, proper recovery, safe operations on the ground, and fiscal regulations. Largely borrowed from the US and adopted to provincial contexts, the main fiscal instruments in the 1960s and 1970s included revenues from royalties, land sales, bonus bids for production rights, profit tax, super-

⁵¹² Joseph G. Debanné, “Oil and Canadian Policy,” *The Energy question: an international failure of policy*, eds., Edward W. Erickson and Leonard Waverman, Vol. 2 (Toronto: University of Toronto Press, 1974), 124.

⁵¹³ Debanné, *Ibid.*, 133-4; R. M. Hyndman and Meyer W. Bucovetsky, “Rents, Rentiers, and Royalties: Government Revenue from Canadian Oil and Gas,” in *The Energy question: an international failure of policy*, eds., Edward W. Erickson and Leonard Waverman, Vol. 2 (Toronto: University of Toronto Press, 1974), 192; John F. Helliwell, Paul M. Boothe and Robert N. McRae, “Stabilization, Allocation and the 1970s Oil Price Shocks,” *The Scandinavian Journal of Economics* 84, no. 2 (1982), 261.

⁵¹⁴ The leading oil producing province Alberta had a regulatory framework in place since 1938 (The Act created Petroleum and Natural Gas Conservation Board of Alberta in the same year. However, the first iteration of provincial energy regulator was the Turner Valley Gas Conservation Board set up in 1932, shortly after Alberta claimed natural resources ownership rights (1930) (See Alberta Energy Regulator, *Highlights in Alberta’s Energy Development*, 2016.)), when it introduced *Oil and Gas Conservation Act*. Ottawa took the first decisive step towards formulation of a federal legal framework in 1959 when it created a federal energy regulator with the passage of the *National Energy Board Act*, NEB Act. Its implementation enabled a number of more recent federal regulations: *Energy Administration Act* (1985), *Northern Pipeline Act* (1985), *Mackenzie Valley Resource Management Act* (1998), *National Energy Board Onshore Pipeline Regulations* (1999) and others).

royalties, etc.⁵¹⁵ At the same time, abundant fiscal incentives provided very generous conditions for O&G companies doing business in Western Canada.⁵¹⁶

Both pre-NOP and post-NOP (up until early 1970s) arrangements satisfied the federal and provincial governments alike and minimized friction between them. The interests of the federal and provincial governments also coincided with those of the oil and gas industry operating in Canada. By taking a “hands-off” approach to the regulation of the private sector, yet providing it with the necessary incentives⁵¹⁷, sponsoring essential infrastructure⁵¹⁸ and injecting capital⁵¹⁹, the federal and provincial governments together embodied an effective administrator of the oil and gas industry in the eyes of the private sector.

1973 – 1984: Securitization of Institutional Arrangement Components

However, the alignment of federal, provincial and private sector interests started to unravel in the early 1970s. The years between 1973 and 1984 can be described as the most turbulent period in Canadian oil and gas policy-making. Challenges aggravated throughout the 1970s, and culminated into a major fall-out in federal-provincial relations in 1980. They only improved gradually after numerous changes in domestic, regional, and wider international contexts.

The 1973 – 1984 period in Canada’s O&G policy arena had three major characteristics. First, previously minimal federal government’s involvement in the legal framework saw the most prolific expansion in the history of Canadian O&G. Regulations were directed at deepening government intervention into the sector and constraining market forces. Since 1973, corporate income tax, governed by the

⁵¹⁵ Helliwell, *Ibid.*, 192; Chandler, *Ibid.*, 50-51.

⁵¹⁶ Hyndman and Bucovetsky, *Ibid.*, 202-4.

⁵¹⁷ Royalty and tax rates attractive for the industry, tax rebates, and other fiscal incentives.

⁵¹⁸ In 1956, federal government sponsored “uneconomic section of the Trans-Canada natural gas pipeline” (Tupper and Doern, *Ibid.*, 96-7).

⁵¹⁹ In the late 1960s, the federal government invested in the oil and gas exploration in the eastern Arctic Islands (*Ibid.*). In the Canadian North, large capital investment was required for technical reasons, but it was deemed too risky by the private companies. In line with its northern development strategy, the government stepped in to finance Frontier resource development projects on several occasions, in the 1960s and in the 1970s.

*Income Tax Act*⁵²⁰ has been the main fiscal instrument in the hands of the federal government with regards to financial regulation of the O&G sector.⁵²¹ Several major regulations were related to security of supply, while some were at odds with the traditional continental orientation of Canada's oil and gas policies. Almost all were repealed or gradually reversed.⁵²²

Second, policies put forward were piecemeal, reactive rather than prescriptive, and represented incremental rather than fundamental attempts of the Canadian government to adapt to new domestic, regional and international realities.⁵²³ Such policies resulted in a heated confrontation between two levels of government as well as the public sector and the private sector. Also, a number of policy initiatives were short-lived. For example, the *self-sufficiency* goal of Energy Policy for Canada (December 1973) was replaced with a more realistic and economically efficient goal of *self-reliance* in An Energy Strategy for Canada (April 1976). The March 1973 decision to completely phase out petroleum exports within the following ten years was overturned by 1985. The large-scale National Energy Program (NEP) introduced in October 1980 was scrapped by 1985.

Third, Canadian oil and gas policies quickly developed a nationalistic undertone, a trait previously alien to the industry in Canada. According to various estimates, by late 1960s – early 1970s, 75% to 91% of oil and gas assets were under foreign control.⁵²⁴ Thus, a sharp turn towards unilateralism at the expense of bilateral cooperation with the US, the newly proclaimed goal of “Canadianization,” and

⁵²⁰ Government of Canada, *Income Tax Act* (1985).

⁵²¹ Helliwell, *Ibid.*, 192.

⁵²² Imposed regulations led to full government control over crude oil prices in 1973 – 1985 (“Why Canada Doesn’t Regulate Crude Oil and Fuel Prices,” Natural Resources Canada (November 15, 2013)). Some of the introduced measures included:

- February 1973 oil export controls and license requirement (Debanné, *Ibid.*, 135-8; Helliwell, *Ibid.*, 186-8; Tupper and Doern, *Ibid.*, 100; Helliwell et al., *Ibid.*, 261),

- September 1973 ‘voluntary’ freeze on the crude oil price with some concessions for eastern importing provinces (Debanné, *Ibid.*, 138; Helliwell, *Ibid.*, 186-8; Tupper and Doern, *Ibid.*, 100-1), and

- November 1973 subsidies for refineries in eastern provinces (Hampson, *Ibid.*, 90).

- In 1974, royalty payments were excluded from the list of deductible expenses (Helliwell, *Ibid.*, 192; Chandler, *Ibid.*, 47).

⁵²³ Bregha, *Ibid.*, 69-70, 73; Helliwell, *Ibid.*, 186; Tupper and Doern, *Ibid.*, 100.

⁵²⁴ Tupper and Doern, *Ibid.*, 97; Gray, *Ibid.*, 257; Debanné, *Ibid.*, 128.

creation of a national oil company, Petro-Canada, contributed to an already chaotic situation in the oil and gas sector.

Regulations imposed on the oil and gas industry in Canada in 1973 – 1984 had mixed effects on the sector and the national economy, but they are generally regarded as negative. Although Petro-Canada served as a viable policy instrument for investing in otherwise unattractive areas and helped develop Canada's Frontier areas and the oil sands industry, it raised questions among the private sector participants about the fairness of competing with the government-backed national oil company. At the same time, oil and natural gas price controls, oil export ban and tight natural gas export regulations led to Canada becoming a net importer of oil by 1975,⁵²⁵ which was reminiscent of 1947, when the country imported 90% of its petroleum requirements.⁵²⁶

1985 – 1990s: Increased Regulations in the Context of Liberalization

The 1980-1981 impasse between the federal and provincial governments is a lesson still remembered today by provincial and federal governments alike. The federal government has not tried to implement similar unilateral decisions since. On both levels, governments have been working hard to reconcile their differences and minimize negative effects on their constituencies. Canada, in conjunction with the US and its federal and state agencies, took a course towards both oil and gas markets liberalization throughout the 1980s and 1990s. This resulted in a liberalized market underpinned by a framework of complex fiscal, technical, safety and environmental regulations.

In 1985 – 1989, oil and gas regulations reflected the return to the 'pro-market' direction of federal policy,⁵²⁷ but at the same time expanded the presence of the federal and provincial governments throughout the 1990s and beyond. Starting in

⁵²⁵ Cestre, *Ibid.*, 7.

⁵²⁶ Gray, *Ibid.*, 3.

⁵²⁷ Pollard, *Ibid.*, 168-170; Doern and Gattinger, *Ibid.*, 33.

1985, the federal and provincial governments started working together and delegated many regulatory functions to the market.⁵²⁸ Promising forecasts for onshore and offshore oil and gas resources in Northern frontier lands, which are under federal control, led to the introduction of joint management of oil and gas resources by federal and provincial governments.⁵²⁹ In Atlantic provinces where sizable offshore O&G resources were discovered, intergovernmental federal – provincial regulatory regimes were established and governed by two *Accord Acts: Canada – Newfoundland and Labrador Atlantic Accord Implementation Act (1987)*⁵³⁰ and *Canada – Nova Scotia Offshore Petroleum Resources Accord Implementation Act (1988)*.⁵³¹

Canada's embrace of O&G market liberalization post-1985 culminated in the signing of the US – Canada FTA in 1987⁵³², when national efforts of both Canada and the US were joined together to promote further integration. This partnership expanded into continent-wide cooperation and resulted in NAFTA in 1994.⁵³³ Energy trade is an essential component of both the FTA and NAFTA, and is protected from national governments' interventionist policies and regulations. At the same time, well-functioning oil and gas markets in provincial, federal, and continental contexts require a sophisticated regulatory framework for smooth day-to-day performance. Thus, liberalization and deregulation should not be equated.⁵³⁴ As liberalization of oil and gas sector in Canada progressed, so did the depth and breadth of government regulations.

⁵²⁸ Gas well-head prices were deregulated and gas supply chains were fully unbundled in 1986, and reserve tests for natural gas exports were abandoned (Doern and Gattinger, *Ibid.*, 88, 102; André Plourde, "The Changing Nature of National and Continental Energy Markets," in *Canadian Energy Policy and the Struggle for Sustainable Development*, ed., G. Bruce Doern (Toronto: University of Toronto Press, 2005), 64, 66); crude oil prices were deregulated, oil and gas prices decoupled, numerous previously established taxes were phased out, and new incentives to attract foreign and domestic investment alike introduced (Pollard, *Ibid.*, 169-70).

⁵²⁹ These included *Canada Oil and Gas Operations Act*, COGOA (1985) and *Canada Petroleum Resources Act*, CPRA (1986).

⁵³⁰ pursuant to the Atlantic Accord, also known as the Memorandum of Agreement between the Government of Canada and the Government of New Foundland and Labrador from February 11, 1985.

⁵³¹ pursuant to the Canada – Nova Scotia Offshore Petroleum Resources Accord from August 26, 1986.

⁵³² "Canada-United States Free Trade Agreement (FTA)," Global Affairs Canada (November 17, 2016).

⁵³³ NAFTA Secretariat, *North American Free Trade Agreement* (1994).

⁵³⁴ C. Slagorsky and B. Fraser, "The Changing Nature Of The Canadian Oil And Gas Business," *Journal of Canadian Petroleum Technology* 30, no. 02 (1991), 53; Sinclair, *Ibid.*, 24.

2000s: Expanded Boundaries of Oil and Gas Governance

Present on paper, in statutes and regulations of the federal government and provinces since at least 1960s – 1970s, the understanding that oil and gas policies impact and in turn are affected by social and environmental policies and realities took center stage only in the beginning of the 21st century. Various interest groups at home and the IEA and UN efforts abroad pushed Canada's federal and provincial governments towards incorporation of social and environmental issues into oil and gas policy framework. Federal regulations from the 1990s reflect increased attention of the federal government to accommodating (1) aboriginal interests,⁵³⁵ (2) environmental concerns,⁵³⁶ and (3) North American cooperation principles in natural resource development.⁵³⁷ Focus on these issues provided a push for provincial governments to concentrate on these same areas in their respective regulatory frameworks. As a result, the majority of regulatory changes of the 2000s have taken place on the provincial level, with aboriginal affairs and environment highlighted by new

⁵³⁵ Enabled by an earlier much more general *Indian Oil and Gas Act*, IOG Act (1984), *Indian Oil and Gas Regulations*, IOG Regulations (1995) specified and improved enforcement of previously vague responsibilities of provincial governments "to consult with, and potentially accommodate, aboriginal groups if aboriginal or treaty rights may be adversely affected by energy projects." (Laura Wright and Jerry P. White, "Developing Oil and Gas Resources On or Near Indigenous Lands in Canada: An Overview of Laws, Treaties, Regulations and Agreements," *The International Indigenous Policy Journal* 3, no. 2 (2012): 1-18). Other significant pieces of legislation with regards to aboriginal rights and O&G management include the *First Nations Land Management Act*, FNLM Act (1999) (The FNLM Act applies only to the signatories of the Framework Agreement. Initially, only 13 First Nations signed the agreement in February 1996. However, as of February 2010, there are 58 signatories. As part of the agreement and under the FNLM Act, these 58 First Nations now have or are developing their own land codes) and the *First Nations Oil and Gas and Moneys Management Act*, FNOGMM Act (2005). Finally, previously mentioned IOG Act was amended in May 2009, but its implementation is pending similar amendments to the IOG Regulations, which currently (as of April 2016) are under review.

⁵³⁶ First, *Canadian Environmental Assessment Act*, CEAA (1992) and now its updated version *Canadian Environmental Assessment Act*, CEAA (2012) requires certain energy projects to undergo an environmental assessment. These include offshore projects, pipelines and LNG facilities. Compared with CEAA (1992), CEAA (2012) is more flexible on delegating assessment responsibilities to the provinces (IEA, "Energy Policies of IEA Countries – Canada 2015 Review," 103, 107). *Canadian Environmental Protection Act*, CEPA (1999) has a wider scope of "pollution prevention and the protection of the environment and human health." Besides nation-wide regulations, Canada became a signatory to the Kyoto Protocol (1997). Despite the fact that Canada's commitment to the Kyoto Protocol's targets was not realized and the country pulled out of the international agreement in 2011, environmental and climate change objectives did remain on the federal and provincial governments' agenda.

⁵³⁷ North American integration manifested in an intergovernmental commitment with the implementation of the NAFTA. The groundwork for it was completed by the late 1980s with the liberalization of oil and gas markets inside Canada, but the federal government had to ensure that tensions between provinces and opposition to NAFTA is minimal. As part of its efforts, *Agreement on Internal Trade*, AIT (1994) was implemented the same year as NAFTA in order to "eliminate barriers to trade, investment and mobility within Canada." Chapter 11 on Natural Resources Processing which covers production and sale of mineral resources and products derived from them, states that "governments are to reconcile differences in any measures that impact on trade in the processing of natural resources."

regulations.⁵³⁸ Provinces have also been active in enhancing their O&G regulatory frameworks in the 2000s beyond environmental regulations.⁵³⁹

Despite the dominance of provincial level regulations, a number of significant initiatives originated from the federal government. These refer to the review of production bases and revenue sources in the late 1990s – early 2000s, elimination of the federal capital tax in 2006, and reduction of corporate income tax rates in 2012.⁵⁴⁰ Also, in addition to the CEEA (2012), three regulatory acts implemented by the federal government in 2010s are worth noting: *Northwest Territories Oil and Gas Operations Act* (2014),⁵⁴¹ *Energy Safety and Security Act*, ESSA (2015),⁵⁴² and *Pipeline Safety Act* (2015).⁵⁴³

Active incorporation of social and environmental perspectives into oil and gas policy-making has been accompanied by increased inter-departmental cooperation since the 1990s. The departments' mandates became more comprehensive, and they made

⁵³⁸ One of the examples of federal push is the 2006 announcement by the federal government to regulate O&G sector emissions. While the announcement has not resulted into federal regulations, a number of provincial governments, including those of oil and gas producing provinces took steps towards flaring and emissions limitations in the upstream O&G (Government of Canada, *Notice of intent*, 2; IEA, "Energy Policies of IEA Countries – Canada 2015 Review," 48). In Alberta, *Carbon Capture and Storage Funding Act* (2009) encourages carbon capture storage (CCS) projects in the province dependent on fossil fuels for its economic development (Henry J. Krupa, "The Legal Framework for Carbon Capture and Storage in Canada," in *Carbon capture and storage: emerging legal and regulatory issues*, eds., Ian Havercroft, Richard Macrory and Richard B. Stewart (Oxford: Hart Publishing, 2011), 297). *Specific Gas Emitters Regulation*, SGER (2007) is another Alberta-based environmental initiative implemented under the *Climate Change and Emissions Management Act* that adopts strict GHG emission requirements. In November 2015, a comprehensive new climate change plan was announced by Alberta Premier. Other provinces active in environment and climate change issues are Quebec (cap-and-trade system introduced in 2012), Manitoba (carbon pricing and cap-and-trade systems under development since 2015), Saskatchewan (commitment to increase a share of power generation from renewables) and British Columbia (carbon tax) (Winfield and Demerse, *Ibid.*, 8-9; IEA, *Ibid.*, 51-2).

⁵³⁹ For example, in Alberta, several acts and many more regulations were introduced or updated since the turn of the century. Some of them include the *Mines and Minerals Act* (2000), the *Oil and Gas Conservation Act* (2000), the *Oil Sands Conservation Act* (2000), the *Public Lands Act* (2000), *Responsible Energy Development Act* (2012), and *Crown Minerals Registration Regulations* (2001, 2002, 2003, 2004, 2004, 2014).

⁵⁴⁰ Harvey Lazar, *Toward a new mission statement for Canadian fiscal federalism* (Montreal: McGill-Queen's Univ. Press, 2000), 145-8; IEA, "Energy Policies of IEA Countries – Canada 2015 Review," 34.

⁵⁴¹ "Fifth Session, Seventeenth legislative assembly of the northwest territories," Legislative Assembly of the Northwest Territories (March 14, 2006).

⁵⁴² enforced since February 2016, is designed to enhance regulatory ability of the federal government in the North and Canadian Arctic through commitment to improved safety, transparency, and information sharing ("Fact Sheet: Energy Safety and Security Act," Government of Canada, National Energy Board (December 01, 2016)).

⁵⁴³ in force since June 2016, the act emphasizes oversight and emergency management of pipeline infrastructure, as well as corporate liability (Natural Resources Canada, *Pipeline Safety*, 4; IEA, "Energy Policies of IEA Countries – Canada 2015 Review," 10, 32, 103).

efforts to avoid replication of duties.⁵⁴⁴ Additionally, numerous networks, information portals and alliances between oil and gas sector companies, industry associations, environmental groups and other stakeholders supplement intergovernmental cooperation.⁵⁴⁵ Finally, interprovincial,⁵⁴⁶ federal – provincial,⁵⁴⁷ and intracontinental⁵⁴⁸ intergovernmental cooperation is on the rise.

While general directions of provincial energy policies are gradually converging, means of reaching similar goals are still divergent. There is no uniform blueprint used by provinces and territories for organizing their administrative arrangements for governing O&G supply chains. Generally, the governance of the sector is reflective of the role oil and gas plays in the province's economy. While some provinces prefer a centralized approach, others choose decentralization of regulatory powers between various agencies. Thus, Alberta, which is home to the earliest O&G administration in

⁵⁴⁴ For instance, the NEB and NRCan signed an MOU “to reduce duplication” and collaborate on data collection and energy studies (“Cooperation with Other Agencies,” Government of Canada, National Energy Board (August 25, 2016)). It has similar agreements with the Northern Pipeline Agency (NPA), Transportation Safety Board of Canada (TSB), other agencies and provincial/territorial administrators. Horizontal cooperation has also been supported by federal government initiatives like the 2007 Major Projects Management Office (MPMO) Initiative, which has been extended until 2020. Under the leadership of NRCan, MPMO Initiative brings together 12 federal departments “to enable efficient and effective regulatory reviews of major resource projects and to... modernize the regulatory system for major resource projects” (See “Horizontal Initiative & Major Projects Management Office Initiative,” Natural Resources Canada (March 10, 2016)).

⁵⁴⁵ Some of them involve government participation, while others do not. Examples include Canada's Oil Sands Innovation Alliance (COSIA) for improved environmental performance of oil sands projects, the Beaufort Regional Environmental Assessment (BREA) for supporting environmental and socio-economic research for better management of oil and gas resources in the Beaufort Sea, and Energy and Utilities Sector Networks throughout Canada for information exchange on security state of critical energy infrastructure.

⁵⁴⁶ Provinces have always promoted information and technology sharing, standardization of technical, safety and emergency response procedures, and harmonization of various regulations of oil and gas operations. Principles of collaboration and open access to scientific and technical information remain relevant today. One of the most recent interprovincial initiatives is the 2012 Canadian FracFocus portal, which Alberta, British Columbia, New Brunswick and the NEB are using as “a mandatory online registry of hydraulic fracturing fluids and chemical disclosure” (IEA, “Energy Policies of IEA Countries – Canada 2015 Review,” 113-114).

⁵⁴⁷ In the 2000s, Canadian Council of Ministers of the Environment (CCME) and Energy and Mines Ministers' Conference (EMMC) were set up for federal – provincial work on aligning their environmental and energy priorities. Energy Technology Working Group (ETWG), created under the EMMC, is a forum for federal, provincial and territorial governments to share their views on energy technology priorities and ways to develop and employ such technologies in due time. Introduced in 2014, MPMO-West, an offshoot of the MPMO Initiative, engages federal departments with the goal of enhancing Aboriginal participation in energy development projects. By locating the federal office in Vancouver, British Columbia federal government signaled its intention to work closely not only with the representatives of the Aboriginal interests in Western Canada, but with the British Columbia and Alberta provincial governments as well.

⁵⁴⁸ North American Energy Working Group (NAEWG) exists between NAFTA governments since 2001 to ensure effective functioning of the North American energy market (Government of Canada, *Notice of intent*, 1; Brownsey, *Ibid.*, 102). In 2015, a ministerial-level trilateral working group on energy and climate change was launched by NAFTA member-states' Energy Ministers.

Canada, has experimented with various governance models since 1938. In 2013, it unified all provincial government responsibilities for O&G management under a single body, Alberta Energy Regulator (AER). The AER's responsibilities go beyond the usual regulator's duties. Its active participation in the O&G sector has also made it "the world's leading and most significant public sector investor" in technological research.⁵⁴⁹ In British Columbia, BC Oil and Gas Commission is a similar "single-window regulatory agency."⁵⁵⁰ Quebec, a net importer of oil and natural gas, has one of the most decentralized oil and gas governance regimes. Pipeline regulation alone is split between 12 agencies and departments.⁵⁵¹

Overall, the federal government finds itself in a position of having to reconcile provincial interests for the benefit of the nation. The federal government is seen as a guarantor of national interest and is expected to be a unifier of ten provinces and three territories. As such, it is often criticized for the absence of federal energy and environment policy.⁵⁵² On account of this criticism, Canadian Energy Strategy (CES), also referred to as National Energy Strategy (NES), received a lot of attention as a potential candidate for the long-awaited nation-wide energy policy of the new century. Despite undergoing an impressive transformation from a concept in a 2007 academic paper to an agenda item in the Canadian Premiers' meeting in July 2015,⁵⁵³ the CES is yet to be endorsed by the federal government. The inaction from the federal government is explained by one of the principles of Canadian energy policy in practice, which is mutual respect for jurisdictions. This respect has been nurtured by federal and provincial governments since the 1980 NEP fiasco, and is still fragile for the federal government to be able to take any bold actions with regards to energy

⁵⁴⁹ Taymaz Rastgardani, *Energy Security for Canada: A Comparison of the Self-Sufficiency and Continental Strategies*, Master's Thesis (Simon Fraser University, 2007), 35.

⁵⁵⁰ "About Us," BC Oil and Gas Commission (January 22, 2015).

⁵⁵¹ "Quebec's Pipeline Regulatory Regime," Natural Resources Canada (September 26, 2016).

⁵⁵² Winfield and Demerse, *Ibid.*, 2; Camille Fertel, Olivier Bahn, Kathleen Vaillancourt, and Jean-Philippe Waaub, "Canadian energy and climate policies: A SWOT analysis in search of federal/provincial coherence," *Energy Policy* 63 (2013), 1148; Macdonald and Lesch, *Ibid.*, 11-12.

⁵⁵³ Canada's Premiers, *Canadian Energy Strategy* (July 2015).

policy. The experience of the federal government in the 1990s – 2000s has shown that “gentle nagging” of the provinces can give better results than forceful calls for action.

Security of Supply vs. Security of Demand

In addition to a complex situation around national energy policy-making, the views on Canada’s security of energy supply are not straightforward either. The argument provides space for both advocates and challengers of the concerns over security of energy supply. While the IEA supports the view that security of supply is a concern,⁵⁵⁴ all components of Canadian institutional arrangement – including policy framework – governing O&G supply chains suggest otherwise.⁵⁵⁵ Neither NEB nor NRCan mention ‘energy security’ or ‘supply security’ in their mandate descriptions. No recent legal or policy changes had an explicit focus on security of supply. Instead, in 2010 – 2015, the policy framework has been dominated by initiatives dealing with social acceptance of large energy projects, environmental impact reviews, and, safety of oil and gas transportation by rail and pipelines.

However, Canada has implicit concerns about security of *demand* rather than supply. This has to do with the US shale revolution underway since 2009 and Canada “losing some ground” in its large oil and only gas export markets.⁵⁵⁶ These concerns motivated renewed federal interest in LNG projects as well as a push by the O&G industry for the expansion of existing pipeline infrastructure. Incentives⁵⁵⁷ encouraging and facilitating LNG facilities development have been put in place, and regulatory approval for LNG projects has been sped up (the NEB approved 26 LNG terminals projects in 2015).⁵⁵⁸ With regards to pipelines, despite the fact that the Keystone XL project failed to materialize, regulatory approval processes are under

⁵⁵⁴ IEA, “Energy Policies of IEA Countries – Canada 2015 Review,” 13.

⁵⁵⁵ Sinclair, *Ibid.*, 34.

⁵⁵⁶ IEA, *Ibid.*, 122.

⁵⁵⁷ These include LNG license extension and accelerated capital cost allowance.

⁵⁵⁸ Natural Resources Canada, *Energy Fact Book 2015 – 2016*, 50.

way for two domestic projects: Energy East that would carry hydrocarbons from Western to Eastern Canada and Trans Mountain extension that would ship oil from Alberta to a port near Vancouver.⁵⁵⁹

Summary

Institutions governing Canada's oil and gas supply chains are sophisticated and consist of integrated legal, policy and administrative arrangement elements. The three elements are nested within a highly complex institutional environment. The institutional environment's influence – combined with the policy actors' manipulations and oil and gas supply chains' performance – has created and sustained liberalized oil and gas markets.

Provinces tend to focus on the legal framework rather than on the wider policy framework. When compared to changes in policy, modifications in the legal framework are more likely to result in altered administrative arrangements. The space of administrative arrangements has historically been dominated by the organizations mandated by the provinces rather than the federal government.

In recent years, the tendency for collaboration between various provincial-level administrators as well as federal and provincial bodies has been on the rise. This is explained by numerous motivations on the part of the governments: research collaboration to decrease costs to provinces, search for solutions to overlapping energy – environment and resource development – social acceptance problems, and leverage creation for pursuing specific interests. Increased and more wide-spread cooperation can also be attributed to the growing participation of aboriginal interest groups in the decision-making and regulatory processes.

As administrators collaborate, provincial oil and gas laws and regulations, although still limited by provincial boundaries, are becoming more harmonized. Growing

⁵⁵⁹ Jesse Snyder, "Oilsands producers face looming bottleneck, even with Trans Mountain pipeline expansion," *Financial Post* (October 20, 2016).

similarities and adherence to the same, usually federally- or continentally-mandated, standards improve inter-provincial understanding and facilitate dialogue. In the absence of official federal energy policy, collaborative tendencies in the oil and gas supply chains institutions are beneficial for Canada’s energy sector.

5.2.3.2 Referent Object Performance

Canada’s oil and gas sector performance can be analyzed with regards to four different periods in the evolution of the sector. Although temporal borders between these periods are vague⁵⁶⁰, they are defined based on changes in the configuration of various O&G sector players. As Table 5.3 demonstrates, the country’s O&G sector can be argued to have gone through three periods: internationalization (1947 – 1973), Canadianization (1973 – 1984), and liberalization (1984 – 2012). The current period – Liberalization* - has not seen any major changes in the configuration of actors, but is singled out due to newly implemented restrictions on foreign NOC participation in the O&G sector (See Table 5.3).

Table 5.3: Ranking of Major Players in Canada’s Oil and Gas Sector (1952 – Present)

Internationalization 1947 – 1973		Canadianization 1973 – 1984		Liberalization 1984 – 2012	Liberalization* 2012 - Present
1. IOCs 2. Domestic Cs 3. F/P Crown Corps		1.Domestic Cs 2.F/P Crown Corps 3.Petro-Canada (NOC) 4.IOCs		1. IOCs 2. Domestic Cs 3. Petro-Canada	1.Domestic Cs 2.IOCs *restrictions for foreign NOCs
Net Crude Oil					
Importer 1952* - 1968		Exporter 1969 - 1974		Importer 1975 - 1982	Exporter 1983 - Present
Pre-NOC period 1947 - 1975		NOC period 1976 - 1991		Post-NOC period 1992 - Present	

Source: Author

Notes: * - 1952 is the first year for which data are available, but 1947, the year of discovery of major O&G reserves in Alberta, is generally treated as the starting point of large-scale O&G industry in Canada

⁵⁶⁰ This is largely due to the lag between changing external and internal market conditions and government regulations on the one hand and sector’s performance on the other.

IOCs – international oil companies
Domestic Cs – domestic companies
F/P Crown Corps – federal and provincial Crown corporations
NOC – national oil company

In 2012, the federal government implemented restrictions on participation of foreign NOCs in Canada’s O&G sector. The restrictions immediately followed the government approval of two large acquisition projects, one by China’s CNOOC⁵⁶¹ and the other by Malaysia’s Petronas⁵⁶². Since the new regulation is preventative in nature and did not have a measurable effect on the O&G sector performance, the regulation is analyzed below as part of the legal framework. For the purposes of sector performance, the third and fourth period are combined in a single period encompassing the years between 1984 and the present.

Thus, the sector’s performance is analyzed according to the three periods and along the lines of criteria set by the securitization framework, including physical, financial, economic efficiency, and compliance indicators.

Internationalization (1947 – 1973)

Since the early days of O&G development, provincial governments – as owners and managers of natural resources – welcomed foreign companies to explore, develop and transport Canadian oil and natural gas resources. Explained by geographic factors and international oil market conditions of the post-World War II world, Canada’s domestic oil and gas sector became host to US-owned international oil companies (IOCs). Facing challenges from increasingly nationalistic governments around the world, US majors were attracted by the friendly investment climate of Canadian hydrocarbon sector, which also happened to be in close proximity with these companies’ home markets. In the 1950s – 1960s, “the big four” established themselves as major players in Canadian O&G. Out of four, three companies – Imperial (Exxon), Gulf Oil Canada (Gulf Oil

⁵⁶¹ CNOOC acquired petroleum producer Nexen for \$15.1 billion. Acquisition was finalized in 2013.

⁵⁶² Petronas acquired natural gas producer Progress Energy Resources for \$6 billion.

Corporation) and Texaco – were subsidiaries of US firms. The fourth one, Shell, was a Dutch-English firm.⁵⁶³ The same companies dominated the refining sector.

Following discoveries of large reserves in Western Canada in the late 1940s, Canada's pipeline network experienced a development boom in the 1950s and 1960s. Unlike in the upstream sector, pipeline infrastructure projects initiated in this period were owned and controlled mainly by Canadian companies (Interprovincial Pipe Line Inc., Pembina Pipeline System). However, participation of US-based companies, as was the case with TransMountain Pipeline System, and ventures jointly financed by both sides, such as a 50-50 partnership between TransCanada Pipeline Ltd and its US counterpart, were common.⁵⁶⁴

Both crude oil supply and domestic consumption were on the rise throughout the 1960s, but production outpaced consumption. By the end of the decade, Canada's crude oil exports grew larger than imports, and the country changed its status from a net importer to a net exporter of oil in 1969. During the same decade, the volume of exported natural gas increased more than six times, from 3.1 bcm in 1960 to 19.3 bcm in 1969 (See Figure 5.3). At the same time, refinery crude runs saw a steady rise; imports of petroleum products increased sharply, especially in the late 1960s, while their exports remained minimal and flat.

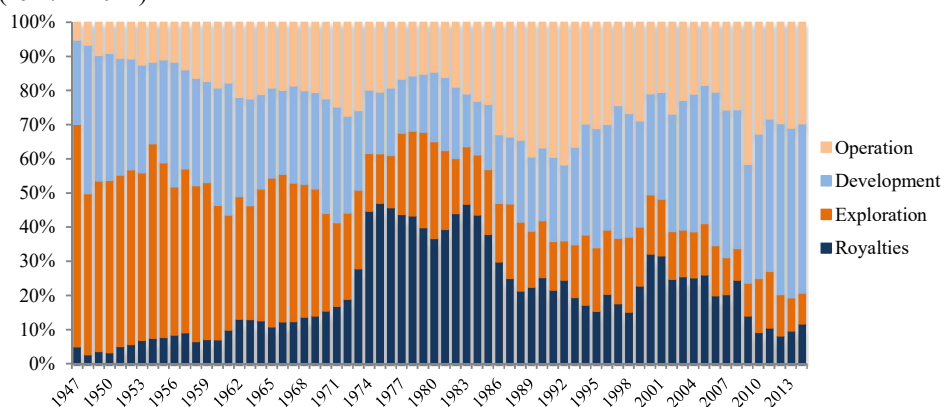
Overall, internationalization in the Canadian oil and gas sector can be characterized as the time when Canada took the first steps towards establishing itself as a significant exporter of crude oil and natural gas. Also, encouraged by the federal and provincial regulators, private companies invested into oil and gas pipeline infrastructure to bring Canadian hydrocarbon resources to various markets. In this period, it is possible to see the first roots of the long-term focus on supply expansion as opposed to demand moderation measures. Finally, the active role of the government recognizing the value

⁵⁶³ Gray, *Ibid.*, 257; Sinclair, *Ibid.*, 25.

⁵⁶⁴ Helliwell, *Ibid.*, 196; "About Pipelines: Our Energy Connections," CEPA (November 2012); IEA, "Energy Policies of IEA Countries – Canada 2015 Review," 143.

of extracted resources became clear in the 1960s. In Alberta, the province accounting for the lion's share of Canada's oil and gas production, royalties paid by the petroleum industry to the provincial government were on the rise representing about 4% of total annual expenditures accruing to the companies in the late 1940s, 7% in the 1950s, and 12% in the 1960s (See Figure 5.7). Hence, the government welcomed the IOCs' expertise in the exploration and development of Canada's resources, but these activities were to be regulated to benefit both private and public interests.

Figure 5.7: Breakdown of Net Cash Expenditures of Alberta Petroleum Industry (1947 – 2014)



Data Source: Canadian Association of Petroleum Producers, *Statistical Handbook*.

Canadianization (1973 – 1984)

With the growing production and surging exports of oil and gas came the wide-spread criticism of multinational companies operating in Canada. Negative attitude towards foreign control of domestic resources in Canada coincided with dramatic events of the 1973 oil crisis in the international market and led to a wave of Canadianization measures in the oil and gas industry. These included a range of new ownership regulations, taxation, export controls and foreign investment restrictions.

Canadianization resulted in large-scale divestment by the IOCs and created a new market environment. Domestic and foreign companies' market shares during the late 1970s were inverted by the early 1980s. Now less than 35% of upstream oil and gas

assets were under foreign control, while the rest were split between domestic private companies and Petro-Canada, a newly established national oil company. Some provincial governments followed the lead of the federal government and established several provincial Crown corporations in the oil and gas sector. For example, in 1974, British Columbia established a monopolistic natural gas trading agency BC Petroleum Corporation.⁵⁶⁵

Petro-Canada “was less a conventional state enterprise than an instrument of specific policy.”⁵⁶⁶ As part of the large-scale government campaign to increase oil and gas resources ownership by Canadian companies and make sure that the industry first and foremost benefits public interest, Petro-Canada acquired several subsidiaries of IOCs operating in Canada, obtained access to federal Crown Lands for exploration and development of northern and offshore areas, and received generous government funding to support its initial expansion.⁵⁶⁷ Although plans of turning Petro-Canada into an instrument of resource cooperation with foreign governments were floating for a few years, it was evident by the late 1970s that Petro-Canada was not a threat to the market-based oil and gas industry in Canada despite the backing of the federal government. Seen from the perspective of an investment mechanism, Petro-Canada can be deemed successful as it expanded exploration and development activities in the capital intensive niches of the oil and gas sector, including oil sands and frontier development.⁵⁶⁸ But its operations proved too costly for the government very quickly, and the fate of Petro-Canada was not at all clear by the mid-1980s.

⁵⁶⁵ Chandler, *Ibid.*, 54-55.

⁵⁶⁶ Barry Ferguson, “Petro-Canada,” in *Encyclopedia of the Great Plains*, ed., David J. Wishart (Lincoln, Neb.: Univ. of Nebraska Press, 2004), 429.

⁵⁶⁷ Cestre, *Ibid.*, 23-9; Bregha, *Ibid.*, 71-2; Helliwell, *Ibid.*, 194; Tupper and Doern, *Ibid.*, 118-34; John Erik Fossum, *Oil, the state, and federalism: the rise and demise of Petro-Canada as a statist impulse* (Toronto: University of Toronto Press, 1997), 156; Brownsey, *Ibid.*, 98.

⁵⁶⁸ Petro-Canada, whose performance indicators were not different from other typical industry representatives at the time, grew dramatically in 1976 – 1984 mainly due to the acquisition of other companies and federal land acreage. In less than a decade, its assets value increased from \$878 million in 1977 to \$9,055 million in 1984; and its revenues multiplied from \$92 million to \$4,991 million in the same period. Government priorities in designing an NOC as a guarantor of oil and gas supply were reflected in Petro-Canada’s heavy focus on frontier development, much of which was not profitable and

Aside from the activities of the newly established Petro-Canada, markets for crude oil and natural gas were shrinking. Consumption was the only crude oil indicator making steady gains in 1973 – 1984, while supply, exports, and imports exhibited a downward trend. In these conditions, fears of a crude oil shortage were very close to materialization. Tight crude oil exports regulations quickly turned Canada back into a net importer. By 1981, crude oil exports were at their lowest level since 1960. Natural gas exports also slowed down in this period, but their decrease was nowhere near as rapid as that of crude oil. Exports of petroleum products, on the contrary, picked up in 1970 making Canada a net petroleum products exporter by 1974. However, exports growth was volatile and experienced significant fluctuations up until 1984.

The most pronounced effects of Canadianization were felt in Alberta, the center of Canada's oil and gas sector. Oil and gas producers there experienced the federal – provincial governments' fight over revenues first-hand. During the initial years of the new policy direction, royalties paid by the petroleum industry in the province skyrocketed. In 1974, they totaled 45% of total expenditures, compared with 28% a year earlier. Throughout the Canadianization period, Alberta's petroleum industry spent an average of 43% of its overall annual expenses on royalties (See Figure 5.7).

Thus, Canadianization was a time of struggle for the IOCs, which previously dominated Canada's oil and gas market. While foreign participation was decreasing, this period saw new domestic players introduced as a counterweight in balancing foreign and Canadian interests. The biggest of these players, Petro-Canada, did have an impact on the development of domestic non-conventional resources, but did not change the configuration of the industry players in the medium-to-long term. By 1984, security of supply worsened, and the goal of self-reliance did not appear any closer than in early 1974. The negative effects of poorly designed policies and

had to be financed through federal grants and incentives. In 1976 – 1986, Petro-Canada spent \$2.8 billion on E&D in frontier regions and \$1.97 billion in the provinces (Fossum, *Ibid.*, 157).

inappropriate regulations were felt by the governments and were reflected in deteriorating O&G sector performance.

Liberalization (1984 – Present)

The first signs of market liberalization came in 1981, when the federal and Alberta governments reached an agreement on pricing and revenue sharing. Relaxed oil exports regulations turned Canada back into a net exporter of crude oil by 1983. However, the true liberalization period started in 1984 – 1985 with the comeback of the Conservative government to power and gradual dismantling of the National Energy Program (NEP), intergovernmental agreements allowing for offshore O&G exploration and production (Atlantic Accord) and signifying oil price deregulation (Western Accord), de-coupling of oil and gas prices, and full deregulation of gas prices. All of the above market liberalization measures were possible not only due to the change in the government, from Liberal to Conservative, or due to a shift in public sentiment moderating nationalistic mood. To some extent, they should also be attributed to external events, like the drop in the international oil price in the early 1980s. Although unexpected, it was largely a pleasant surprise for the Canadian government, as it created an acceptable framework for: (a) a smooth transition to deregulated oil and gas pricing, (b) less hostile federal – provincial competition for economic rents from O&G industry, and (c) once again accepting foreign investment.

While upstream and midstream players welcomed the period of liberalization, collapsing oil prices created new difficulties for them. They were forced to increase operating efficiency by cutting costs and in some cases moving their exploration activities from mature (West) and expensive (Frontier lands) Canadian fields to more profitable fields abroad. The effect of a rapid drop in oil prices and shrinking government funding was felt by Petro-Canada too. In 1986 the company's expenditures in the Frontiers amounted to \$245 million, but plummeted to \$41

million by the next year.⁵⁶⁹ Nevertheless, Petro-Canada's increased activity in the provinces kept revenues stable up to 1991 and beyond. In 1991, 20% of the NOC was privatized, with the remaining government shares sold by 2005. Petro-Canada was fully functional as a private company and active in Canada and abroad. It was acquired by Suncor in 2009.⁵⁷⁰

With the exception of short periods of industry consolidation during hard economic times (i.e., low oil prices in 1986 and 2009), since mid-1980s, the number of O&G industry players in Canada has always been on the rise. In the 2010s, the approximate number of upstream sector participants stands at 200 companies. However, the levels of production concentration differ significantly between the oil sands and conventional oil sectors. In the former, "19 companies operate 21 in-situ projects and 5 mining projects."⁵⁷¹ In the latter, top 15 companies (out of approximately 195) account for about 70% of production.⁵⁷² Moreover, top 10 companies hold over 50% of O&G production.⁵⁷³

The share of foreign-controlled upstream O&G assets in Canada increased since the mid-1980s, but never reached pre-Canadianization levels. It remained slightly below 50% in the early 2000s, decreasing further and stabilizing at around 35% – 40% in 2005 – 2013 (See Figure 5.8). Thus, despite open-market competition in the framework of Canada – US FTA since the late 1980s and NAFTA since the mid-1990s and fears on the part of critics of economic liberalization, Canadian O&G companies were able to withstand competition from the IOCs and gradually increase their share of the Canadian O&G market. In 2012, top 20 positions among the largest companies based on oil and gas production were equally split between Canadian and foreign companies (See Table 5.4).

⁵⁶⁹ Fossum, *Ibid.*, 162.

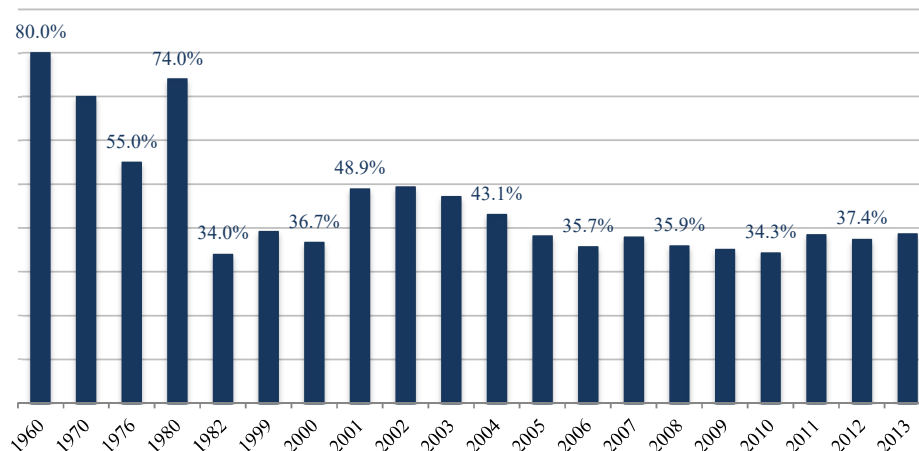
⁵⁷⁰ Sinclair, *Ibid.*, 31-32.

⁵⁷¹ IEA, "Energy Policies of IEA Countries – Canada 2015 Review," 145.

⁵⁷² *Ibid.*

⁵⁷³ Natural Resources Canada, *Pipeline Safety*; Natural Resources Canada, *Energy Fact Book 2015 – 2016*.

Figure 5.8: Foreign Control of Canada's Upstream O&G, % (1960 – 2013)



Data Sources: **1960:** a rough estimate averaging a range of estimates from 70% to 90%
1970: Taylor, "From Branch Operation to Integrated Subsidiary," 49-50.
1976 and 1982: foreign control of mining including O&G production (Carroll, *Corporate Power and Canadian Capitalism*, 164).
1980: this percentage of foreign-owned companies was in charge of 81.5% of oil market (Bratt, "Tools and Levers," 214).
1982-1999: no data or estimates available from the government of Canada (NRCan, Statistics Canada, etc.) or from secondary literature.
1999-2013: Statistics Canada (Statistics Canada, "Table 179-0004").

Notes: 1. Prior to 1999, Statistics Canada released aggregated percentage of foreign-controlled companies in the Canadian economy. The industry breakdown became available only in 1999. These data are collected and made publicly available under the Corporations Returns Act (CRA), 1985.
 2. Foreign controlled company is defined as one with 50% or more foreign ownership (Natural Resources Canada. *Energy Fact Book 2015 – 2016*).

Table 5.4: Top 20 O&G Companies in Canada by Total Production (2012)

Rank	Company	Total production of O&G (boe/d)
1	Canadian Natural Resources Ltd.	546,000
2	Suncor Energy Inc.	470,000
3	Husky Energy Inc.	314,000
4	Shell Canada Ltd.	297,000
5	ConocoPhillips Canada Resources Corp.	291,000
6	Imperial Oil Ltd.	277,000
7	Cenovus Energy Inc.	255,000
8	Encana Corp.	247,000
9	Devon Canada Corp.	216,000
10	Penn West Petroleum Ltd.	166,000

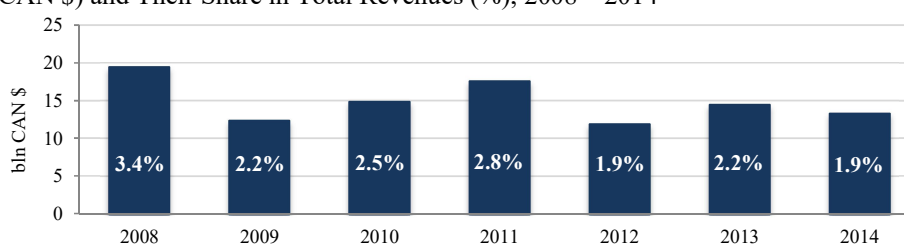
11	Apache Canada Ltd.	135,000
12	Pengrowth Energy Corp.	120,000
13	Canadian Oil Sands Ltd.	106,000
14	Crescent Point Energy Corp.	106,000
15	Talisman Energy Inc.	105,000
16	Exxon Mobil Corp.	97,000
17	ARC Resources Ltd.	94,000
18	Chevron Corp.	88,000
19	Murphy Oil Corp.	84,000
20	TAQA North Ltd.	77,000

Source: Vanderklippe, “How much of Canada’s energy resource lies in foreign hands?”

Notes: Canadian-owned companies are highlighted in grey.

Between 2009 and 2013, the oil and gas industry contributed an average of \$20.3 billion to government revenues, making it the largest source of revenues. Contributions include income tax (\$5.5 billion), royalties (\$11.2 billion), and Crown Land sales⁵⁷⁴ (\$2.9 billion) among others⁵⁷⁵ (See Figure 5.9). Upstream oil and gas operations of the entire value chain are by far the largest contributor to the total amount of revenues.

Figure 5.9: O&G Royalties Collected by Provincial and Federal Governments (bln CAN \$) and Their Share in Total Revenues (%), 2008 – 2014



Data Source: Statistics Canada, “Table 385-0042.”

Notes: Balance sheet data are presented as stocks (in billion CAN \$). Stocks refer to holdings of assets and liabilities at a specific time – the end of the accounting period.

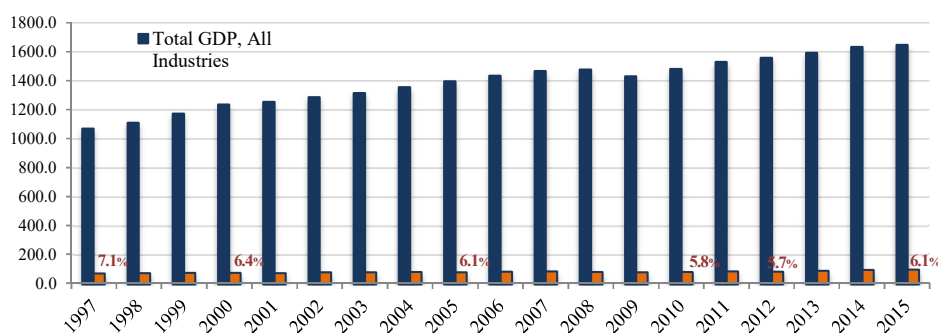
⁵⁷⁴ Paid to the Crown (the federal or provincial government) in order to acquire the resource rights.

⁵⁷⁵ Natural Resources Canada, *Energy Fact Book 2015 – 2016*, 7.

In comparison, pipeline operators pay a small share of taxes paid by companies in O&G extraction. As of September 2014, there are an estimated 825,000 km of oil and gas pipelines in Canada.⁵⁷⁶ Less than 10% (about 73,000 km) of this extensive network is regulated by the federal government (the National Energy Board (NEB)), while the rest is under provincial governments' control. The overwhelming share of major oil and gas infrastructure is owned by Canadian companies. For instance, out of five largest oil pipeline operators, including such companies as Enbridge and Encana, only one – Kinder Morgan – is a US-based company.⁵⁷⁷ The NEB regulates over a hundred pipeline companies, while the number in some provinces is even higher⁵⁷⁸. For example, in British Columbia, provincial regulator oversees operations of 120 pipeline companies.⁵⁷⁹

The sizable contribution of the O&G sector to government revenues and a small share of the sector's contribution to Canada's GDP is an indicator of an effective taxation system and economic diversification. In 1997 – 2015, the share of O&G upstream in the national GDP stood around 6% (See Figure 5.10). At the same time, as non-conventional production increased, its growing value was captured by contributions to GDP (See Figure 5.11).

Figure 5.10: O&G Extraction Contribution to Canada's GDP (bln CAN \$), 1997 – 2015



Data Source: Statistics Canada, "Table 379-0031."

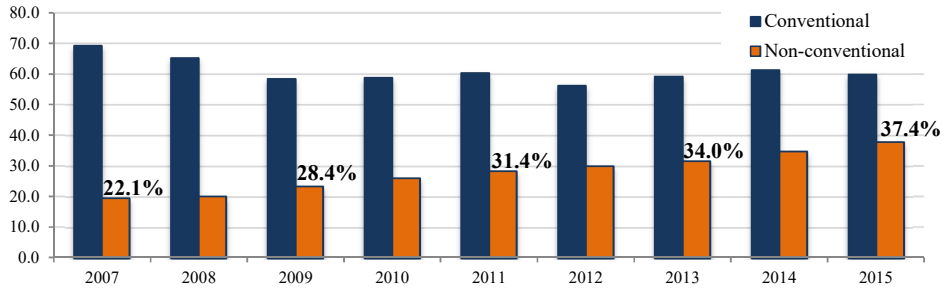
⁵⁷⁶ Natural Resources Canada, *Pipeline Safety*.

⁵⁷⁷ IEA, "Energy Policies of IEA Countries – Canada 2015 Review," 143.

⁵⁷⁸ Includes transmission and delivery pipelines.

⁵⁷⁹ "Pipeline Safety Regimes in Canada," Natural Resources Canada (September 26, 2016).

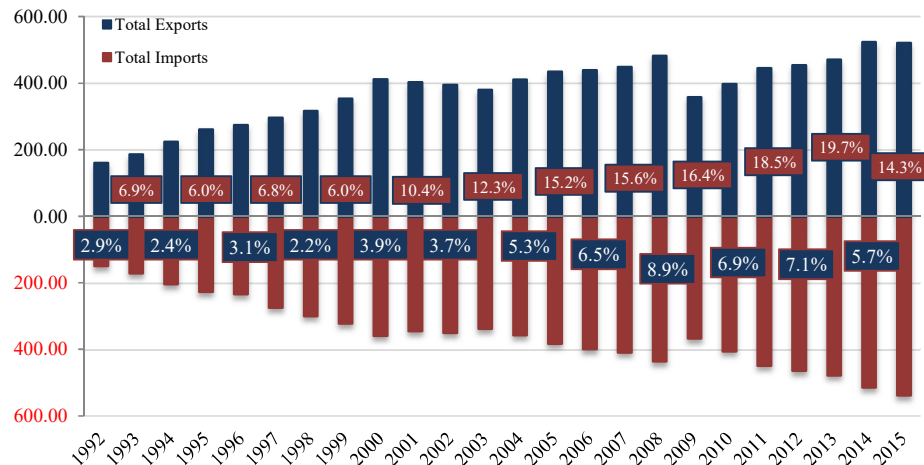
Figure 5.11: Conventional and Unconventional O&G Extraction in Canada's GDP (bln CAN \$), 2007 - 2015



Data Source: Statistics Canada, "Table 379-0031."

Continued increase in physical volumes of exported crude oil (1984 – 2015) and natural gas (1986 – 2001) are reflected in the growing share of O&G in national exports. Its share grew from 7% in 1993 to almost 14% in 2015. Declining exports of natural gas after 2001 were compensated by the surging exports of crude oil (See Figure 5.1 and Figure 5.3).

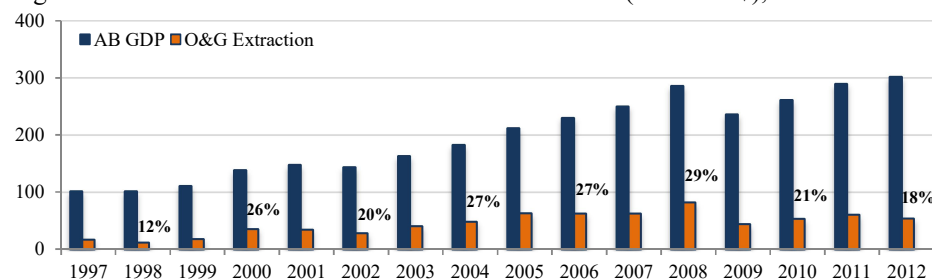
Figure 5.12: Share of Upstream O&G (%) in Canada's Exports and Imports (bln CAN \$), 1992 - 2015



Data Source: Statistics Canada, "Imports and exports (International Trade Statistics)."

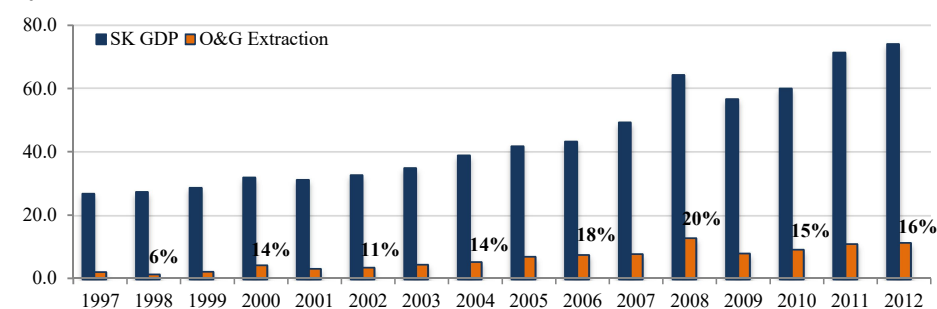
On the provincial level, the share of O&G among various industries' contribution to the province's GDP is the highest in Alberta and Saskatchewan, registering 18% and 16% contributions in 2012, respectively (See Figures 5.13 and 5.14).

Figure 5.13: Share of O&G Extraction in Alberta's GDP (bln CAN \$), 1997 - 2012



Data Sources: Statistics Canada, "Table 381-0015"; Statistics Canada, "Table 381-0030."

Figure 5.14: Share of O&G Extraction in Saskatchewan's GDP (bln CAN \$), 1997 - 2012



Data Sources: Statistics Canada, "Table 381-0015"; Statistics Canada, "Table 381-0030."

Summary

Canada's O&G sector has a unique history as a sector that was established primarily by foreign IOCs with domestic companies gaining momentum and claiming larger shares of upstream and midstream assets only several decades into large-scale O&G development. While the ratio of foreign-domestic ownership of firms in different segments of supply chains fluctuated over time, the ownership of upstream assets has always been the most contentious because it is directly related to the ownership of Crown Land and resources. Countless debates on the role of foreign control of

Canadian resources and a number of regulatory changes in the last 60 years resulted in a considerable decrease in foreign ownership in Canada's oil and gas sector, from 80% in the 1960s to around 39% in 2013. However, its share has never fallen below 30% (See Figure 5.8).

The experience of the O&G sector in Canada also provides a noteworthy example of short-term government participation through the national oil company (Petro-Canada) but with no symptoms generally associated with the creation of NOCs, such as nationalization or repatriation. The special features of the Canadian NOC underscore the role of the institutional environment in shaping its actors' behavior and demonstrate that no NOCs are the same.

Finally, while there is no doubt that the role of the institutional ecosystem is paramount in defining major characteristics of the O&G sector, its actors' behavior and sector performance are also responsible for shaping the institutional arrangement through direct and indirect influence on policy-making processes, which in turn shape legal, policy and administrative arrangements components of relevant institutions.

5.3 Key Findings

A number of observations emerge from the analysis of Canada's oil and gas supply chains governance and attempts to securitize it. First, the role of perceptions and timing of events/decisions/trends appears to be paramount in decision-making and initiation of policy processes like securitization. Also, as Canada's attitude towards the 1973 oil crisis demonstrates, perception of a crisis matters more than the nature of the crisis itself.

Second, a number of findings point to the unique characteristics of Canada's O&G sector. The most prominent features include early separation of the two types of fossil fuels in policy-making, West-East flows of the resources, and deep integration with

US energy markets. Neither one can be singled out as a defining factor in (non-)securitization of Canada's O&G supply chains, but each one has undoubtedly contributed to shaping actors, institutions, and O&G sector performance.

Third, securitization of oil, and to a lesser extent gas, supply chains culminated in the implementation of the infamous NEP. This policy initiative is remembered as one of the bold interventionist undertakings by the federal government and is always cited in O&G governance discussions. But it was also short-lived, and its damaging effects were corrected fairly quickly by path dependent stability-supporting institutional arrangements.

Fourth, Canada's O&G sector experience demonstrates that liberalization should not be equated with complete deregulation. At the same time, regulations do not always mean restrictions. At least in Canada's case, regulatory design rather than liberalized markets ensure long-term non-securitization.

Fifth, Canada is well-endowed with oil and gas resources and as a net exporter of both it is expected to be most concerned with potential threats to the demand side of supply chains. In reality, this is only the case with the Western exporting provinces, while net importing provinces are preoccupied with security of supply. Moreover, the institutional environment allows for inter-provincial cooperation in order to minimize perceived threats on each side.

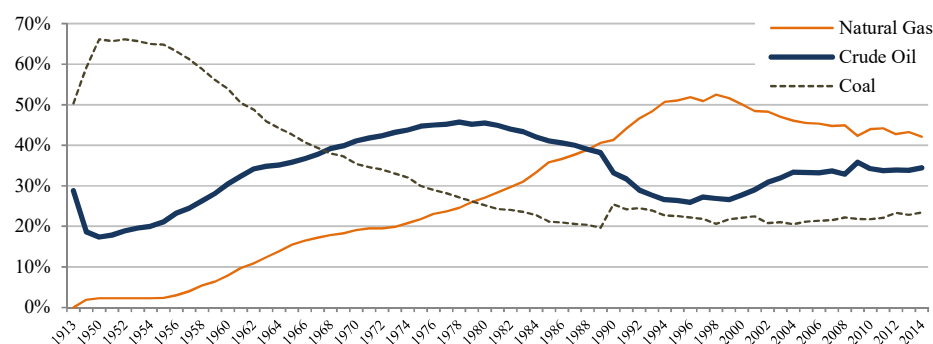
Sixth, when it comes to the importance of security of supply for net importers and security of demand for net exporters of oil and natural gas, the line between an importer and an exporter is very thin. In other words, a net importer status does not automatically lead to supply chain securitization, and vice versa. Usually, as the analysis through the lens of securitization framework demonstrates, the interplay of factors affects the emergence of securitizing actors and initiation of securitization processes.

Chapter 6: Securitization of Oil and Gas Supply Chains in Russia (1968 – 2015)

6.1 Introduction

The country's oil and gas sector experienced a wide range of regulatory changes and spanned three⁵⁸⁰ very different political regimes: the Russian Empire (1721 – 1917), Russian Soviet Federative Socialist Republic (RSFSR) as part of the USSR (1917 – 1991), and Russian Federation (1991 – Present). Commercial production of oil in Russia dates back to the 1860s. As Figure 6.1 demonstrates, oil became the leading fossil fuel in the Soviet economy by 1968,⁵⁸¹ and natural gas production increased significantly at the same time.⁵⁸² Hence, 1968 is chosen as the starting point for the analysis of Russia's oil and gas supply chains.

Figure 6.1: Fossil Fuel Shares (%) in the Russian Empire/USSR/Russia's Primary Energy Mix (1913 – 2014)



Data Sources: Central Statistical Directorate (1959, 1970, 1975, 1980, 1985, 1990); Federal State Statistics Service (2001, 2015).

Notes: 'Crude Oil' includes gas condensate.
1940 – 1990 numbers are for the USSR.

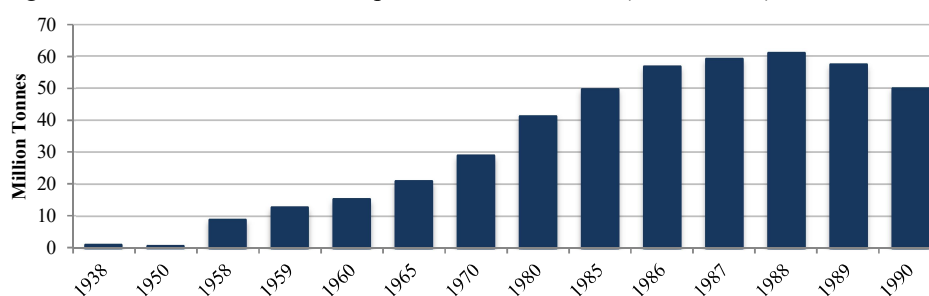
⁵⁸⁰ There have been four regimes, but the short-lived Russian Republic (March 15 – September 14, 1917) is omitted here as its effect on the O&G sector was relatively insignificant.

⁵⁸¹ In 1968, the share of oil production overtook that of coal for the first time. In real numbers, despite the gradually narrowing gap, the Soviet Union has always produced more coal than crude oil. In RSFSR alone, the share of oil exceeded that of coal by 1975.

⁵⁸² Natural gas production in RSFSR/USSR was minimal and did not receive much attention until the mid-1950s. Most of produced gas was associated petroleum gas (APG), flared in the process of oil production. But the share of gas in the overall fossil fuel production increased significantly by 1968. By 1980, the percentage share of natural gas production exceeded that of coal, and by 1989 – that of crude oil. In RSFSR, natural gas production followed a similar trend. Its share among other fossil fuels experienced growth through the 1960s and surpassed both coal and oil by 1990.

Data on petroleum products' production and consumption in the Soviet Union are largely unavailable.⁵⁸³ The only available statistic is the amount of exported petroleum products, which peaked at 61mln tonnes in 1988 (See Figure 6.2). The numbers on the share of exports in total production have been made available after 1993⁵⁸⁴, but the value of petroleum products exports was only partially disclosed, omitting the value of generally discounted exports to the Commonwealth of Independent States (CIS) countries until 1995. The same is true for crude oil and natural gas figures. Starting in 1995, reporting has become more consistent. It allows for drawing a clear picture of oil, gas, and petroleum products exports, their value, and share in total exports (See Appendix 5).

Figure 6.2: Petroleum Products Exported from the USSR (1938 – 1990)



Data Sources: Central Statistical Directorate, various years.

While RSFSR represented only one of the fifteen socialist union republics within the USSR, it is not surprising that following the dissolution of the Soviet Union in December 1991, Russia positioned itself as its rightful successor.⁵⁸⁵ Since the late 1960s, RSFSR had been the undisputed center of the Soviet oil industry, contributing

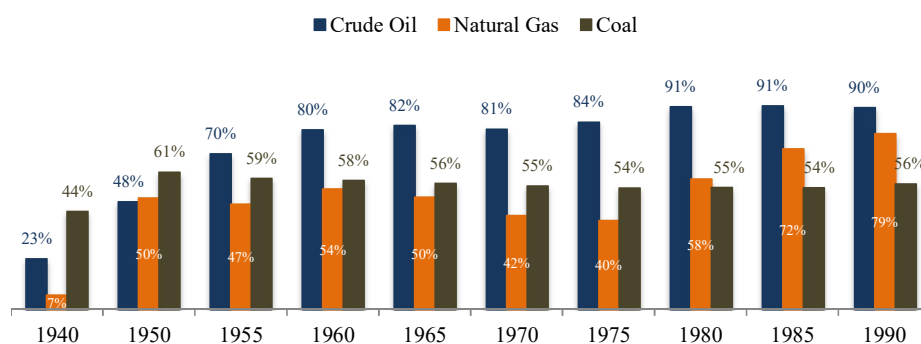
⁵⁸³ Neither production, nor consumption numbers have been reported in the government economic yearbooks. Soviet statistics do not provide any information on the value of these exports, or their share in total production either.

⁵⁸⁴ In 1991 – 1992, only exports to CIS countries were reported; in ‘Million Tonne’ but not in ‘Million USD.’

⁵⁸⁵ In January 1992, two weeks after the official dissolution of the USSR, Russian Ministry of Foreign Affairs sent out a diplomatic note to all foreign representatives in Moscow stating that the Russian Federation would continue to fulfill USSR’s obligations originating from the international treaties (Government of the Russian Federation, “A Note from the Ministry of Foreign Affairs of the Russian Federation to the Heads of Diplomatic Representatives,” Moscow: Ministry of Foreign Affairs of the Russian Federation (January 13, 1992)). This role was further strengthened in the Federal Law “On International Agreements of the Russian Federation” from July 15, 1995.

as much as 82% to national oil production. Also, RSFSR gas fields provided close to 60% of the total production in 1980 and almost 80% in 1990, although major reserves were located in other Soviet republics (See Figure 6.3).

Figure 6.3: Share (%) of RSFSR in the Soviet Production of Fossil Fuels (1940 – 1990)



Data Sources: RSFSR (1940 – 1970): Central Statistical Directorate, various years;
 RSFSR (1975 – 1990): Federal State Statistics Service (2001);
 USSR (1940 – 1990): Central Statistical Directorate, various years.

In both the USSR and the Russian Federation, oil and gas have been the driving force behind the national energy strategy. These fossil fuels were and are expected to support heavy industrial growth, socio-economic development, and the military complex. Hence, energy strategy has been closely linked to the objectives of national economic development, national security strategy, budget forecasting, as well as scientific and technological development strategies. Prioritized position of oil and gas on the policy-makers' agenda has consistently resulted in close oversight from the broader institutional environment (i.e., central decision-makers such the Central Committee and Politburo in the Soviet Union and President and presidential administration in Russia) and often advanced securitization as a way to express urgency and importance of supply chains.

Securitization trends were not constant and uniform across oil and gas sub-sectors. In the late 1970s – 1980s, the gas industry players who were in search of increased

attention from political elites and investment securitized oil supply chains. The gas industry was aided by the policy guidelines implemented at the time, which referred to oil supply chains as threatened and promoted securitization while treating gas supplies as reliable and abundant. In the 1990s, oil and gas sub-sectors switched their places in relation to securitization. Ambiguous policies, yet clear legal changes signifying gas asset consolidation and gas supply chain monopolization suggested the emergence of the gas securitization trends. In similar conditions of policy ambiguity but legal and regulatory preference for privatization and relaxed government control, previously explicit securitization of oil supply chains was reversed. Since the beginning of the 21st century, securitization of oil and especially gas supply chains has been progressing. Stemming from the institutional environment and sustained by the politicization of oil and gas sector, securitization ensures the leading role of the NOCs in the sector and the central government in the management of supply chains domestically and overseas. On the supply side, the role of foreign participants was significantly curbed. On the demand side, Russian companies are trying to expand their customer base in order to preserve their world market share.

Following the structure of the securitization framework constructed in Chapter 3, this chapter analyzes securitization trends in Russia's upstream and midstream segments of oil and gas supply chains. Type I inputs (Section 6.2.1) demonstrate that the pervasiveness of informal institutions and strong centralization trends along with weak horizontal linkages between various institutional elements increase the probability of the rise of an unchecked dominant decision-maker. At the same time, the qualities of the institutional environment impair the ability of policy stakeholders to oppose a strong securitizing actor. Type II inputs (Section 6.2.2) illustrate the strong negative effect of weak institutional checks and balances on the heterogeneous policy arena governing Russia's oil and gas supply chains. Their most important implication is the rise of securitizing actors from the institutional environment rather

than sector-specific institutional arrangement. Type III inputs (Section 6.2.3) analyze the changing policies, the delayed establishment of the legal framework, the conflicting nature of the administrative arrangements, and their combined effect on the sector's performance that underwent significant transition between 1968 and 2015. The key findings on the securitization processes in Russia's O&G supply chains are discussed in the final section (Section 4.3).

6.2 Russia's Upstream O&G Supply Chains in the Securitization Framework

6.2.1 Type I Inputs: Institutional Ecosystem

6.2.1.1 Embedded Institutions

Russia's embedded institutions have endured centuries of changes in the national institutional environment associated with feudal wars and foreign invasions, and the events of 1917 and 1991 were not an exception. The endurance of cultural norms and traditions, however, should not be mistaken for inertia. Even though embedded institutions are reluctant to change, changes in higher levels of the institutional ecosystem push them to adapt and leave "formidable legacies."⁵⁸⁶

The events of 1917 and 1991 both signified a "complete break with the past,"⁵⁸⁷ but many components of modern Russian identity go as far back as the origins of Russian statehood in the 9th century.⁵⁸⁸ They translate into unique ways of organizing a political system, running a business, and building relationships. First, there is a general inclination to ignore rules because historically they have made "little sense, or [have been] difficult to comply with."⁵⁸⁹ Second, the absence of well-functioning

⁵⁸⁶ Marshall I. Goldman *The enigma of Soviet petroleum: half-full or half-empty?* (London: Allen & Unwin, 1980), 36; Gertrude E. Schroeder, "Gorbachev's Economic Reforms," in *Comparative economic systems: models and cases*, ed., Morris Bornstein (Homewood, IL.: Irwin, 1989), 340.

⁵⁸⁷ Heinrich Hassmann, *Oil in the Soviet Union: history, geography, problems*, Translated ... with the addition of much new information by Alfred M. Leeston (Princeton: Princeton University Press, 1953), 7.

⁵⁸⁸ Stefan Hedlund, *Putin's energy agenda: the contradictions of Russia's resource wealth* (Boulder: Lynne Rienner Publishers, 2014), 36.

⁵⁸⁹ Daniel McCarthy and Sheila Puffer, "Corporate Governance in Russia," *European Management Journal* 20, no. 6 (2002), 637.

rules leads to the rise of informal relations based on personal connections and tendency to distrust individuals and organizations outside one's personal network.⁵⁹⁰ Third, Russia "has a heritage of top-down, hierarchical management,"⁵⁹¹ and an effective state apparatus is equated with a strong leader in charge of the country whose authority is rarely questioned. Fourth, it is widely accepted that the primary function of the Russian government is to provide security of the state borders. This results in society's low expectations about the role of state in economic development. Even though the state is perceived as the main provider of economic and social services, in the case of dissatisfaction with their quality, the state is excused as dealing with far more important issues such as ensuring Russia's security and greatness in the world. Thus, "basic legitimacy of the system [is] strongly linked to providing defense rather than economic development."⁵⁹² Fifth, a long tradition of authoritarian governments established the idea that state leaders are above the general public. This perception makes accountability, universal applicability of laws and public-private partnership problematic.

Russia's experience with communism left a visible imprint on the country's cultural foundation. Principles of central planning and command economy blended well with already existing characteristics of Russian culture, but the effects of new ideology and rapid industrialization had both positive and negative implications. On the one hand, the ideology of materialism reduced the power of fatalism and religion in the outlook of the Russians. On the other hand, Soviet leaders' attempt to eradicate religion and subordinate idealism to materialism resulted in a backlash reinforcing the role of religion and fatalistic attitude after the fall of the USSR. Notwithstanding a

⁵⁹⁰ Jennifer I. Considine and William A. Kerr, *The Russian oil economy* (Cheltenham: Edward Elgar, 2002), 303-4; McCarthy and Puffer, *Ibid.*, 637-8; Thane Gustafson, *Wheel of fortune: the battle for oil and power in Russia* (Cambridge, MA: Harvard University Press, 2012), 14.

⁵⁹¹ Sarah Dixon, *Organisational transformation in the Russian oil industry* (Cheltenham, Glos, UK: Edward Elgar, 2008), 206.

⁵⁹² Hedlund, *Ibid.*, 37.

brief period of “emotional rejection of Soviet patterns and symbols in the 1990s,”⁵⁹³ the “nostalgia for the Soviet empire, and resentment of the West”⁵⁹⁴ are back in full force since the early 2000s. A wistful longing for the great Soviet past is also closely associated with Russia’s self-image, which has been reflected in President Putin’s campaign aimed at “projecting an image of Russia as a strong country.”⁵⁹⁵

In the institutional ecosystem, embedded institutions and an individual policy arena are separated by a multitude of structures and processes. Hence, it is hard to make a definite connection between the features of embedded institutions and securitization trends related to a particular policy arena and referent object. However, in the case of Russia several characteristics stand out as the ones making Russia’s oil and gas supply chains predisposed to securitization. First, due to historical experience, the Russian state tends to see the outside world as a threat. Since oil and gas resources are vital to the survival of the Russian state and large portion of demand for these resources is concentrated abroad, oil and gas supply chains are very likely to be perceived as threatened and thus they become securitized.

Second, securitization of oil and gas supply chains is in line with the Soviet tradition. In the USSR, the oil and gas sector was so deeply integrated within the state (the same can be said about other core economic subsectors like heavy industry) that the sector units’ (enterprises and associations) performance was equated with the performance of the state as a whole. For instance, there was no differentiation between the finances of industrial associations and the finances of the state. As a result, any threat to oil and gas supply chains was generally perceived as a threat to the state. In post-Soviet Russia, even though the oil and gas sector is managed in a completely different manner, and there is differentiation between the state and

⁵⁹³ Pavel K. Baev and Indra Øverland, “The South Stream versus Nabucco pipeline race: geopolitical and economic (ir)rationalities and political stakes in mega-projects,” *International Affairs* 86, no. 5 (2010), 1084.

⁵⁹⁴ Gustafson, *Ibid.*, 27.

⁵⁹⁵ Valentina Feklyunina, “Russia’s International Images and its Energy Policy. An Unreliable Supplier?” *Europe-Asia Studies* 64, no. 3 (2012), 451, 464, 466.

companies, the tradition of perceiving a threat to the oil and gas sector as a challenge to the state persists.

Third, Russia's embedded institutions are responsible for producing strong authoritative leaders. Unless their ambitions are kept in check by the institutional environment and policy arena participants, they can easily evolve into securitizing actors. The ease with which securitizing actors can rise is not limited to oil and gas supply chains and holds true for any referent object worthy of central leadership's attention.

The following analysis of the institutional environment will shed more light on securitization processes in the governance of Russia's oil and gas sector in 1968 - 2015.

6.2.1.2 Institutional Environment

Russia's institutional environment transformed from a one-party system of the 1917 – 1991 to a market-based multi-party system after 1991. This major transition illustrates the fragility of seemingly perpetual political regimes and ideologies on the one hand and robustness of deeply rooted elements of embedded institutions on the other.

Defining Features and Resulting Inefficiencies

Several distinctive features kept the Soviet institutional environment afloat for decades, but eventually led to its demise. The first is overreliance on planning. Five-year plans and annual plans were central elements of the decision-making process. They were the tools for controlling resource allocation and for keeping numerous bureaucracies compliant with the central government objectives.⁵⁹⁶ But they failed to

⁵⁹⁶ Hassmann, *Ibid.*, 15; Edward A. Hewett, *Energy, economics, and foreign policy in the Soviet Union* (Washington, D.C.: Brookings Institution, 1984), 10; Thane Gustafson, *Crisis amid plenty: the politics of Soviet energy under Brezhnev and Gorbachev* (Princeton, NJ: Princeton University Press, 1989), 310.

reflect supply-demand dynamics and to help policy-makers make informed decisions, and, thus, quickly lost their relevance in each five-year cycle. Moreover, excessive focus on planning at the top of the hierarchical system did not translate into effective implementation because the latter was much harder to control from the center. Finally, each planning process required prolonged negotiations between different, but not within the same, levels of government.⁵⁹⁷

Second, market-based performance benchmarks were absent in the Soviet system. Instead, it relied fully on administrative incentives. From the perspective of the central government, such approach helped ensure full control of even the smallest units of production. Output was the key performance indicator, and workers were incentivized through the Stakhanov system⁵⁹⁸ of piecework rewards.⁵⁹⁹ All economic production units were compensated exclusively based on quantity with a complete disregard for quality. This approach to productivity created a multitude of challenges for the command system. They surfaced as unrestrained rent seeking,⁶⁰⁰ constantly declining productivity of the entire economy, mounting inefficiencies, unmanageable costs, and inability of Soviet goods to compete abroad.

Third, the Soviet institutional environment was based on a complete rejection of market-based economics including the fundamental concept of pricing, and efforts to adapt were delayed and insufficient. A total neglect of classical microeconomics until the 1960s gave way to realization that Soviet domestic economy was not immune⁶⁰¹ to fluctuations in the international markets. But even though “economics has become

⁵⁹⁷ Hewett, *Ibid.*, 10.

⁵⁹⁸ For the history and explanation of Stakhanov movement see “Aleksei Grigorievich Stakhanov,” *GlobalSecurity.org*.

⁵⁹⁹ Hassmann, *Ibid.*, 13-4; Hewett, *Ibid.*, 140.

⁶⁰⁰ Central planners could easily allocate rent as they deemed appropriate due to the absence of market benchmarks (i.e., the government had full control of the pricing system) (Clifford Gaddy and Barry Ickes, “Resource Rents and the Russian Economy,” *Eurasian Geography and Economics* 46, no. 8 (2005), 570).

⁶⁰¹ Goldman, *Ibid.*, 48.

the accepted official language of Soviet policy discourse”⁶⁰² by the late 1970s, key economic principles of cost, profit and price mechanism were not fully understood as late as the 1990s. For example, the 1987 Joint Enterprise Law and related legislation omitted a definition and mode of calculation of profit.⁶⁰³ During major enterprise reform of 1987, a bankruptcy law was omitted from the reform program, which effectively halted the entire effort.⁶⁰⁴

Fourth, in the Soviet command system, the leaders’ authority was the strongest at the top and became more elusive as one went down the hierarchical ladder. On the way down, communication channels were becoming more scarce while competition between actors increased. Hence, central organs like Gosplan (the State Planning Commission) and the Council of Ministers were reluctant to let go of control because, in the absence of constant pressure, the regional and local bodies were disinclined and slow to implement central-level directives.⁶⁰⁵ Moreover, the hierarchical structure itself was convoluted as it kept branching out on the way down to localities. This meant that, in effect, there were “a number of different hierarchies in which horizontally linked economic units... were formed in the regions.”⁶⁰⁶ For example, there were at least five ministries in charge of O&G sector management working simultaneously, but towards their individual targets. The institutional environment provided these multiple ministries with no tools or incentives to initiate and maintain communication with one another.

Fifth, the Soviet Union lacked an independent legal system, a phenomenon that dated back to Tsarist Russia.⁶⁰⁷ As a result, the state, represented by government officials, has always served as an arbiter of public and private affairs. It has also put the state

⁶⁰² Gustafson, *Ibid.*, 142; Paul E. Lydolph and Theodore Shabad, "The Oil And Gas Industries In The U.S.S.R.," *Annals of the Association of American Geographers* 50, no. 4 (1960), 462.

⁶⁰³ Thomas D. Gochenour, "Current Difficulties in Forming Policy and Attracting the Foreign Oil Industry to the Former Soviet Union," *Tulsa Law Review* 27, no. 4 (1992), 712.

⁶⁰⁴ Considine and Kerr, *Ibid.*, 212-4.

⁶⁰⁵ Gustafson, *Ibid.*, 164.

⁶⁰⁶ David Stuart Lane and Iskander Seifulmulukov, "Structure and Ownership," in *The political economy of Russian oil*, ed., David Stuart Lane (Lanham, MD: Rowman & Littlefield, 1999), 16.

⁶⁰⁷ Gochenour, *Ibid.*, 707.

above the law, and allowed the state to always place its objectives before any other interests (i.e., commercial or private) making it impossible for anyone to argue against the state will.

All of the above features of the Soviet institutional environment led to a host of inefficiencies⁶⁰⁸ that resulted in the implosion of the system in 1991. These inefficiencies became so ingrained in the institutional ecosystem of the Soviet Union that they survived the change of the institutional environment and became legacies influencing the present and future of the Russian state.

Transition of the 1990s: Institutional Continuity and Change

Transitional period of the 1990s was pivotal in establishing a strong institutional framework for a market-oriented system of a renewed Russian state. While policy-makers and an army of foreign consultants got some things right, many basics were missed for various reasons. The biggest oversight turned out to be the weight of embedded institutions and Soviet institutional legacy of the “socialist centrally administered economy.”⁶⁰⁹

The combination of the system’s immaturity⁶¹⁰ and exhaustion of state resources⁶¹¹ to deal with frequent emergencies led to a significantly reduced state capacity by the late 1980s – early 1990s. Hence, the new Russian leadership, which took over the reins in December 1991, was weak, disoriented and desperate for help. The help came from the International Monetary Fund (IMF) and the World Bank in the form of advice, help with policy and regulation design, and loans. Unfortunately, actors

⁶⁰⁸ Some of the most crucial inefficiencies included disregard for quality, cost, and consumer satisfaction; discouragement of innovation; wastefulness; evergrowing spending; unrealistic targets; chaotic and fragmented implementation of seemingly rational plans; short-term fixes; conflict between same-level policy executors; risk-averse policies; and slow adaptation.

⁶⁰⁹ Morris Bornstein, "The Soviet Centrally Planned Economy," in *Comparative economic systems: models and cases*, ed., Morris Bornstein, 6th ed. (Homewood, IL: Irwin, 1989), 295.

⁶¹⁰ On the scale of age and maturity of political regimes and economic systems, even in the final years of its existence, the 74 year-old Soviet institutional environment was relatively young and inexperienced.

⁶¹¹ The Soviet system was facing recurring crises of political succession and economic stagnation for almost a decade before it crumbled.

involved in the reform process promoted superficial measures to introduce Russia to Western style capitalism.

Attempts to build markets for various goods and services were based on the historical experience of the European states and ignored the fact that the foundations of Russia's institutional ecosystem were very different from those of the Western liberal democracies. Russia was missing institutional pillars for successful development of a new economic system based on competitive markets, namely: well-defined property rights⁶¹² and an independent legal system.⁶¹³ Nevertheless, privatization and price liberalization proceeded without the implementation of an effective banking system, market regulations and mechanisms for lowering transaction costs. As a result, the Soviet challenges of deteriorating productivity and skyrocketing costs were inherited. Rent seeking, although now shared between the weakened central government and loosely regulated emerging private sector, was thriving. In the case of the O&G sector, the government was privatizing assets and creating vertically integrated companies in the absence of adequate anti-monopoly regulations, fiscal regime and corporate governance culture.⁶¹⁴

As a result, although the institutional environments of Soviet and Post-Soviet Russia are fundamentally different, many Soviet institutional challenges persist.⁶¹⁵ Five-year plans no longer exist, but the current gap between policy formulation and implementation is alarming. Market-based incentives have been introduced, but their proper work is obstructed by the remnants of administrative incentives, the powerful administrative law system, and pervasive rent seeking. Economics has a strong hold in the way public and private actors operate, but weak property rights and rule of law

⁶¹² Considine and Kerr, *Ibid.*, 305-6; Gaddy and Ickes, *Ibid.*, 570-2; Yuko Adachi, "Subsoil Law Reform in Russia under the Putin Administration." *Europe-Asia Studies*, 61, no. 8 (2009), 1395; Gustafson, *Wheel of Fortune*, 96; Hedlund, *Ibid.*, 36, 168-9.

⁶¹³ Gochenour, *Ibid.*, 706-7.

⁶¹⁴ Yekatyerina Malisheva, Vladimir Shmat and Natalia Bozo, "Institutional Barriers for Oil and Gas Sector Development. On the Issue of Institutional Reforms in Russian Oil and Gas Sector," *Vyestnik NSU* 7, no. 2 (2007), 150; Gustafson, *Ibid.*, 7-8; Hedlund, *Ibid.*, 6.

⁶¹⁵ David Stuart Lane, "Introduction," in *The political economy of Russian oil*, ed., David Stuart Lane (Lanham, MD: Rowman & Littlefield, 1999), 4.

often allow political interests, which make no sense from the economic perspective, dominate. Centralization was weak throughout the 1990s, but it is back at the core of the Russian state since the early 2000s.

Institutional Challenges of the 2000s: Informal Institutions and Centralization

In addition to the legacies of the Soviet past, new institutional challenges emerged in the chaos⁶¹⁶ of the last decade of the 20th century as unintended consequences of piecemeal reforms.⁶¹⁷ Two insidious characteristics of the Russian institutional ecosystem gained momentum: informal institutions and centralization (also known as ‘vertical of power’).

The informal sector⁶¹⁸ of the economy took center stage in the 1990s and eventually clashed with newly established formal rules in the 2000s.⁶¹⁹ The evolution of informal institutions is best seen through the analysis of the rise and fall of Russian oligarchs. Technically, the demise of informal institutions since the early 2000s is closely linked to the rise of centralization efforts pushed forward by President Putin. But informal institutions have not been eradicated in the framework of strong centralization because policy actors “reproduce both informal and formal institutions.”⁶²⁰ For instance, for Putin, decreasing the power of oligarchs was not about improving the economic situation.⁶²¹ It was about consolidating power in his hands because the current Russian leadership has an inherent distrust in market-based mechanisms and sector organization for several reasons: a lack of experience with markets, negative experience of the 1990s, and the perception of mature market

⁶¹⁶ Robert Legvold and John D. Grace, "Russian Oil Supply: Performance and Prospects," *Foreign Affairs* 85, no. 3 (2006), 4; Keun Wook Paik, *Sino-Russian Oil and Gas Cooperation: the reality and implications* (Oxford: Oxford University Press for the Oxford Institute for Energy Studies, 2012), 27-8; Per Högselius, *Red gas: Russia and the origins of European energy dependence* (New York: Palgrave Macmillan, 2013), 205.

⁶¹⁷ Hedlund, *Ibid.*, 10.

⁶¹⁸ In the Soviet Union, a large informal sector existed alongside “grossly inefficient formal sector... [here] actors attempted to compensate for poor remuneration from formal-sector work with private semilegal or even illegal ventures.” (See Hedlund, *Ibid.*, 6)

⁶¹⁹ Hedlund, *Ibid.*, 6, 35.

⁶²⁰ Pami Aalto, (ed.), *Russia's energy policies: national, interregional and global levels* (Cheltenham, UK: Edward Elgar, 2012), 32; Michael Rochlitz, “At the Crossroads: Putin’s Third Presidential Term and Russia’s Institutions,” *Political Studies Review* 13, no. 1 (2014), 59, 62-4.

⁶²¹ Legvold and Grace, *Ibid.*, 4.

economies of the world as Russia's long-standing nemeses. Also, in the absence of a functioning property rights regime, the government benefits from preserving informal institutions and using them as instruments of rent collection. Thus, "the country's leadership has effectively entangled itself in a network of informal links."⁶²²

After a short period of decentralization and nascent cooperation between different levels of government in the 1990s, centralization returned in full force with the ascent of Putin as elected president in 2000. The abolition of the "two-key" principle⁶²³ of power sharing between federal and regional governments is one of the major setbacks experienced by the Russian federal system since then. With regards to O&G resources, the principle originally meant joint licensing decisions, joint resource management, and shared tax collection between the federal and regional governments. Starting in 2001, the role of regional governments was curbed in a series of fiscal changes and administrative reforms and was ultimately reduced to zero.⁶²⁴ Offshore resources all over Russia became "solely owned by the Russian Federation and excluded its subjects."⁶²⁵ The abandonment of the "two-key" principle "risks losing important insights into conditions in specific basins and fields, resulting in less efficient exploration,"⁶²⁶ discriminates against independent O&G companies, makes regions fully dependent on the federal government, and results in suboptimal decisions and uninformed judgments⁶²⁷ due to a lack of attention from the center. Hence, centralization continues the Soviet tradition of Moscow's control of regions and their respective natural resources.

⁶²² Rochlitz, *Ibid.*, 64.

⁶²³ Based on Article 72 of the current Russian Constitution, the "two-key" principle provides for "the joint jurisdiction" of the federal and regional governments over "possession, use and disposal of... subsoil... and other natural resources" (*The Constitution of the Russian Federation* (December 12, 1993), Article 72 (c) and (j)).

⁶²⁴ Valeriy Kryukov, "Special Features of the System of Subsurface Resources' Use in Russia – from the perspective of the institutional theory," *Mineral Resources of Russia: Economics and Management*, no. 5 (2005), 31-2; Adachi, *Ibid.*, 1396-7, 1403; Arild Moe and Valery Kryukov, "Oil Exploration in Russia: Prospects for Reforming a Crucial Sector," *Eurasian Geography and Economics* 51, no. 3 (2010), 315.

⁶²⁵ Galina Kurlyandskaya, Gleb Pokatovich and Mikhail Subbotin, *Framework Paper: Oil and Gas in the Russian Federation*, Conference on Oil and Gas in Federal Systems (March 3-4, 2010), 3.

⁶²⁶ Moe and Kryukov, *Ibid.*, 321.

⁶²⁷ Andrey Konoplyanik, "Multiple Investment Regimes for Russian Subsoil Resources: Work in Progress or Utopia?" in *Foreign investment in the energy sector: balancing private and public interests*, ed., Eric De Brabandere (Leiden: Brill, 2014), 50-1.

In the O&G sector, any decisions on project development still arise from the political priorities of the federal state leaders and Russia's foreign policy objectives at the expense of economic efficiency.⁶²⁸ Politicization and easy manipulation of the O&G sector by the government signifies the failure of the latter to create well performing competitive markets. While the O&G sector is just one example of the difficulties the new institutional environment of the Russian state experienced trying to adapt to new market conditions, it is illustrative of many other economic sectors.

However, there have been a number of positive institutional changes in Russia. Compared to the turbulent 1990s, the political and economic systems are more stable, legislative blank spaces in the Russian legal system have been filled, several large-scale administrative reforms have taken place to improve government efficiency, and fiscal regimes have become more transparent.⁶²⁹ Overall, Russia "does seem to be embracing free markets and the rule of law,"⁶³⁰ but since 2000 the government has become more conservative and suspicious in its attitude to markets, especially in the natural resources sectors.⁶³¹ There is an assumption that if the private sector is given control of resource management, it will not work in the interest of the state and the population. This superficial fear overshadows a more serious threat from an inappropriate institutional environment incapable of regulating the private sector and markets efficiently.

6.2.1.3 Horizontal Linkages

Level-specific horizontal linkages between institutional components were limited in the Soviet era and remain very weak in Russia. Typical institutions in Russia's

⁶²⁸ Valery Kryukov, V. Y. Silkin, A. N. Tokarev and V. V. Shmat. "The Mineral Resource Complex of Russia: Realization of Advantages and Opportunities for Development." *Mineral Resources of Russia: Economics and Management*, no. 5 (2011), 31; Considine and Kerr, *Ibid.*, 307.

⁶²⁹ Kryukov et al., *Ibid.*, 31.

⁶³⁰ Douglas B. Reynolds and Marek Kolodziej, "Institutions and the supply of oil: A case study of Russia," *Energy Policy* 35, no. 2 (2007), 948.

⁶³¹ Kryukov et al., *Ibid.*, 31.

institutional ecosystem are independent and overlapping, while complementary institutions are rare. Since the 1980s the Soviet and successive Russian government made attempts to abolish and merge many overlapping institutions governing O&G supply chains. A series of unrelated administrative reforms in the 1980s – 2000s did reduce inter-institutional conflict by decreasing the overall number of overlapping institutions, but the problem of non-cooperation remains acute since large self-sufficient independent institutions are not offered any incentives for initiating dialogue with one another.

The predominantly vertical movement of information and coordination challenges are the subjects of the discussion on the institutional arrangement (See Section 6.2.3.1). There is a prevalent perception among policy-makers that these issues stem from the governance of O&G sector itself (i.e., inability of specific ministries to moderate conflicts and reach consensus) rather than from the wider institutional environment. In reality, however, a lot of challenges faced by the legal and policy frameworks as well as administrative arrangements of the policy arena governing O&G supply chains are rooted in the traits of embedded institutions and the institutional environment that were discussed earlier (See Sections 6.2.1.1 and 6.2.1.2).

Impaired horizontal linkages have an ambivalent effect on securitization practices. On the one hand, poor communication between institutions suppresses the rise of securitizing actors who would be trying to mobilize resources and build consensus. On the other hand, it precludes policy stakeholders from coming together in order to oppose the actions of an already existing securitizing actor. Hence, in such a system, lower-level organizational actors are always at a disadvantage compared to the higher-level ones because the former are unable to build alliances and coordinate their actions. For instance, regional governments have no means of cooperating to oppose a central government's decision. Thus, securitization of O&G supply chains is

more likely to originate from the institutional environment than from the relevant policy arena.

6.2.1.4 Institutional Ecosystem – Policy Arena Link

The analysis of embedded institutions and the institutional environment reveals the link between the institutional ecosystem and the policy arena. Putting behavior of policy actors in the prevailing institutional context helps distinguish institutional behavioral patterns from policy arena-specific ones. In the case of Russia's O&G sector, special treatment of oil and gas resources as a national security priority is a unique feature because many other economic sectors do not enjoy a similar position. At the same time, behavior exhibited by the policy arena actors in charge of O&G supply chains generally fits the expectations associated with Russia's institutional ecosystem.

Contradictions within the evolving institutional environment are best witnessed in the O&G policy arena that struggles to shake off the defining features of the obsolete Soviet regime and incorporate attributes of Russia. The transition from one to another was triggered by changes in the institutional arrangements – laws, policies and organizational structures – but is taking a while to materialize. This is because institutions have been reformed formally, but many of the people in charge of these reforms and institutions are the same as 25 years ago, prior to the political and economic overhaul.

The institutional ecosystem does not have a straightforward causal effect on securitization. Nevertheless, such conditions as the prevalence of informal institutions and strong centralization tendencies as well as weak horizontal institutional linkages in the absence of well-defined property rights and independent legal system create a strong potential for any authoritative leader to turn into an uncontrollable securitizing

actor able to singlehandedly impose his will on the entire institutional arrangement and sector performance. Thus, while securitizing actors materialize within a specific policy arena and in relation to a particular referent object, the clues to their rise are located in the institutional ecosystem.

6.2.2 Type II Inputs: Policy Arena

6.2.2.1 Overview of Policy Actors

Accustomed to private participation and enjoying the free flow of foreign capital since 1872, Russia's oil sector faced radical changes with the establishment of the Soviet Union. Overnight, all land and natural resources became the property of the state, domestic private companies were nationalized, and foreign players' assets were expropriated. Hundreds of players in Russia's upstream and midstream oil and gas industry were reduced to a handful of government agencies representing the Soviet people. Along with all other economic activities, the energy sector was subordinated to the single most important mission of the Soviet state, namely the transformation of a capitalist society into a socialist one via four key means: socialization, collectivization, industrialization, and a planned economy.⁶³² The fuels industries⁶³³ found themselves on top of the Soviet government agenda as the recognized basis for extensive countrywide industrialization.

A large number of interests and goals have resulted in a heterogeneous policy arena in charge of oil and gas supply chains. Undoubtedly, heterogeneity of the policy arena grew more complex and actors became even more diverse over the decades, and, in particular, as the Russian state transitioned to a radically different institutional foundation in the 1990s – 2000s. But even in the Soviet regime where decision-making appeared to be a straightforward monolithic hierarchical process and

⁶³² Hassmann, *Ibid.*, 12.

⁶³³ As part of the fuels and electricity complex, fuels industries included mainly solid (coal, peat, shale, and fuelwood) and liquid (natural gas, crude oil, NGLs, and refined petroleum products) fuels.

“opposing opinions were [effectively] silenced,”⁶³⁴ heterogeneity in the management of oil and gas supply chains was present.

Central Level Policy Actors

Domestic Context

In the context of both Soviet and post-Soviet Russia, actors at the central government level have been more powerful than regional and local government actors. The latter have had little to no say in decisions to develop resources on their respective territories and received few financial benefits⁶³⁵ from oil and gas production and distribution. Prior to 1991, the most powerful policy actors at the central level included the Politburo of the Communist Party, the Council of Ministers and Gosplan. These three bodies were responsible for guiding the Soviet system and allocating resources and, thus, were at the top of the hierarchical ladder. Three more influential committees oversaw other essential elements of the economic system including supply procurement, technological development, and pricing: the State Committee for Material-Technical Supply (Gossnab), the State Committee for Science and Technology (GKNT), and the State Price Committee. Directly under their control were at least eight ministries relevant to the O&G sector management (See Table 6.1). Regional and local ministry branches, known as associations (*obyyedineniye*) and enterprises (*predpriyatiye*), had no control of their own finances and were not allowed to conduct domestic and foreign trade transactions.

Export-import organizations under the Ministry of Foreign Trade, the Bank for Foreign Trade (Vnesheconombank), Construction Bank (Stroybank) and State Bank (Gosbank) also played important roles. However, Soviet banks were fully

⁶³⁴ Hassmann, *Ibid.*, 7-8.

⁶³⁵ The exception is the short-lived dual-key system when regional governments of O&G producing regions were allowed to collect and manage taxes. Only a few powerful regions enjoyed this perk including Bashkortostan and Tatarstan. In 2010, the dual-key system was wiped out. Federal government is currently the sole beneficiary of O&G activity.

subordinated to the system of central planning. They functioned in accordance with priorities of five-year and annual plans, and their main task was to control distribution of state finances between government entities.⁶³⁶ In the Soviet period examined in this chapter (1968 – 1991), many of the ministries listed in Table 6.1 underwent “cosmetic”⁶³⁷ organizational changes of mergers and break-ups, but, in essence, preserved their core functions all the way through the dissolution of the USSR.

Table 6.1: Major Central Level Policy Actors in the Oil and Gas Sector (1968 – Present)

1968 – 1991	1991 - Present
Central Level Policy Actors with Broad Responsibilities	
<ul style="list-style-type: none"> ▪ Politburo of the Communist Party ▪ Council of Ministers ▪ State Planning Commission (Gosplan) ▪ State Committee for Material-Technical Supply (Gossnab) ▪ State Committee for Science and Technology (GKNT) ▪ State Price Committee ▪ Bank for Foreign Trade (Vnesheconombank) ▪ State Bank (Gosbank) ▪ Construction Bank (Stroybank) 	<ul style="list-style-type: none"> ▪ President & Administration ▪ Ministry of Economic Development and Trade <ul style="list-style-type: none"> - Federal Agency for State Property Management (Rosimushchestvo)⁶³⁸ ▪ Federal Antimonopoly Service (FAS)⁶³⁹, Ministry of Finance ▪ Ministry of Foreign Affairs ▪ Ministry of Defense ▪ Federal Security Service (FSB) ▪ Ministry of Science <ul style="list-style-type: none"> - departments for coordination of technological progress
Central Level Policy Actors with O&G Sector Specific Responsibilities	
<ul style="list-style-type: none"> ▪ Ministry of the Petroleum Industry (MNP) ▪ Ministry of the Gas Industry (MGP) ▪ Ministry of Geology (Mingeo) ▪ Ministry for the Construction of Petroleum and Gas Industry Enterprises (MCPGIE) ▪ Ministry of Petroleum Refining and Petro-Chemicals ▪ Ministry of Chemical and Petroleum 	<ul style="list-style-type: none"> ▪ Ministry of Energy (Minenergo)⁶⁴⁰ ▪ Ministry of Natural Resources and Environment (Minprirodi) <ul style="list-style-type: none"> - Federal Subsoil Resources Management (Rosnedra) - Federal Service for Supervision of Natural Resource Usage (Rosprirodnadzor) ▪ Federal Commission on the Fuel and

⁶³⁶ Valery Kryukov, *The Institutional Structure of the Oil and Gas Sector: Problems and Transformations* (Novosibirsk: Russian Academy of Sciences, 1998), 153.

⁶³⁷ Goldman, *Ibid.*, 28.

⁶³⁸ Previously known as the Federal Agency for Federal Property Management (2004 – 2008), the Ministry of Property Relations of the Russian Federation (2000 – 2004), Ministry of State Property of the Russian Federation (Mingosimushchestvo) (1997 – 2000), and the State Committee for State Property Management of the Russian Federation (Goskomimushchestvo, GKI) (1990 – 1997).

⁶³⁹ Known as such since 2004. Prior to this it was known as the State Committee for Anti-Monopoly Policy and Support of New Economic Structures (GKAP) (1990 – 1997), State Anti-Monopoly Committee of the Russian Federation (1997 – 1998), Ministry of Anti-Monopoly Policy and Support of Entrepreneurship (1998 – 2004).

⁶⁴⁰ Prior to 2008, Ministry of Industry and Energy (Minpromenergo) (2004 – 2008) and Ministry of Fuel and Energy (Mintopenergo) (1991 – 2004).

Machine Building <ul style="list-style-type: none"> ▪ Ministry of Power and Electrification (Minenergo) ▪ Ministry of Foreign Trade <ul style="list-style-type: none"> - Soiuznefteexport - Soiuzgasexport - Mashinoimport 	Energy Complex, the Reserve Replacement and Improving the Economy's Energy Efficiency ⁶⁴¹
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Following the dissolution of the Soviet Union in 1991, administrative changes in oil and gas sector management were only a small element in the complete overhaul of the institutional ecosystem. Policy actors, old and new alike, were facing a new political and economic reality and had to embrace new principles of behavior. Some agencies were newly created, others experienced significant changes in their mandates, and others were dismantled. Some of the more prominent central level policy actors in Russia's O&G sector of the 1990s – 2000s are listed in Table 6.1.

The collapse of the Soviet Union and the chaotic privatization process of the 1990s opened doors to previously non-existent categories of domestic private O&G companies, international NGOs and domestic and foreign financial interests. While international organizations like the International Monetary Fund (IMF) and foreign financial institutions were influencing the overall transition of Russia from a command- to a market-based economy, newly created private companies and domestic banks were the key actors in the O&G policy arena of the 1990s – the decade of 'Wild West' capitalism in Russia. Their influence was rooted in their leadership, which consisted of former government officials (Red Directors)⁶⁴² and black market operators of the Soviet era.⁶⁴³ Due to a lack of unified leadership and clear policy direction from the traditional central government actors, Red Directors and former black market operators, who became known as oligarchs, accumulated so much power in their hands during the 1990s that they "were on the verge of buying

⁶⁴¹ Government of the Russian Federation. Government Commission on the Fuel and Energy Complex, the Reserve Replacement and Improving the Economy's Energy Efficiency.

⁶⁴² Reynolds and Kolodziej, *Ibid.*, 943.

⁶⁴³ Marshall I. Goldman, *Petrostate: Putin, power, and the new Russia* (Oxford: Oxford University Press, 2008), 58.

the state.”⁶⁴⁴ In essence, the oligarchs were both players and rule makers. As a result, in the absence of a strong legal and regulatory framework, initiatives like the Loans for Shares⁶⁴⁵ program were implemented, while rent seeking and corruption flourished. Even though the central government actors have regained control of the O&G supply chains since the early 2000s, many challenges of the Soviet era and the 1990s are evident in the characteristics of the institutional ecosystem (See Section 6.2.1) and the institutional arrangement in particular (See Section 6.2.3.1).

Before and after 1991, central level policy actors have had the broad objective of promoting state policies and representing state interests. However, the presence of a common goal does not imply that the central government is a unitary actor, or that relations between and within numerous agencies have been free of tension or conflict. On the contrary, federal actors struggle to reconcile their long- (efficient development of resources) and short-term (achieving desired level of financing from central government) objectives, to balance their local, regional and nation-wide responsibilities, and to coordinate their actions. Such dynamics often require top leadership – the Politburo and the Council of Ministers in the past and the President and Presidential Administration today – to step in to move policy process forward. The problems of reconciliation, balancing, coordination, and constant additional oversight from top leaders originate in the wider institutional environment and echo in all elements of the institutional arrangements (legal, policy, and administrative frameworks), performance of many economic sectors, and finally behavior of policy actors and characteristics of policy arenas.

⁶⁴⁴ Gaddy and Ickes, *Ibid.*, 571.

⁶⁴⁵ Under this program, newly created banks would lend the cash-stripped government money, and shares in state-owned petroleum companies would serve as collateral for the loans. For details on the Loans for Shares see Goldman, *Ibid.*, 62-4.

International Context

Active engagement in international trade and broader economic diplomacy with many countries, regardless of their ideological stance, was the major source of hard and soft currency earnings for the Soviet Union. If trade and partnerships were to benefit the Soviet state, “the politics of ideology was seldom allowed to stand in the way.”⁶⁴⁶ Imports of Western technology for the oil and gas industry were commonplace prior to WWII, but the range of economic efforts on the part of the Soviet Union only grew after WWII. Soiuznefteexport, an agency under the Ministry of Foreign Affairs responsible for foreign oil transactions, played a special role linking Soviet O&G sector with the outside world in the late 1960s – 1980s via cooperation and competition with international oil and gas companies and OPEC, as well as barter trade with the European countries.⁶⁴⁷

For decades Europe has remained Russia’s top oil and gas customer, but their relationship has grown more complex since the fall of the Soviet Union. Oil and gas contracts are no longer simply business transactions; they extend into the realm of foreign policy on both sides. Hence, international disagreements between the EU and Russia today and politicization of O&G supplies are rooted in the incompatibility of their respective institutional environments and objectives. The understanding of energy security is fundamentally different as one is a supplier and the other one is a

⁶⁴⁶ Goldman, *The enigma of Soviet petroleum*, 30

⁶⁴⁷ In 1967, during the closure of the Suez Canal, Soiuznefteexport negotiated an oil swap with international oil companies in the Black Sea and Persian Gulf ports to meet its commitments to customers in the Far East and Japan. By the 1970s, Soiuznefteexport had a number of subsidiaries and affiliates operating abroad: Suomen Petrooli-Finska Petroleum and Teboil in Finland, Nafta GB Ltd in the UK, and Nafta B in Belgium. In 1973, the Soviet Union, by then actively engaged in O&G trade deals with the Europeans but not a member of OPEC, used the oil crisis to its advantage, having replaced the Middle East as the major oil supplier for Europe. Since then Russia – OPEC relationship has been based on delicate diplomacy and produced one long-term trend: every time “demand [for oil] softens, the relationship grows more complicated” (Hewett, *Ibid.*, 215; Goldman, *Ibid.*, 325; Philip Hanson and Jonathan P. Stern, “Soviet Oil and Gas Exports to the West: Commercial Transaction or Security Threat?” *International Affairs (Royal Institute of International Affairs)* 63, no. 3 (1987); Gawdat Bahgat, “Russia's oil and gas policy,” *OPEC Energy Review* 34, no. 3-4 (2010), 177). Technology, pipeline construction materials, and services were used to extend pipelines beyond the Soviet borders and were paid for in kind for several years once the flow of oil and gas in these pipelines was switched on (i.e., the Orenburg – Western border pipeline in the 1970s and Siberia – Western Europe pipeline in the 1980s).

buyer of energy resources. Hence, “the two sides [are] not playing the same game.”⁶⁴⁸ Also, Russia’s actions are based on hard power and national interest, while the EU represents a liberal norms-based institutional environment. This difference results in misperceptions and misinterpretations of each other’s actions, such as the EU expansion of 2004 and multiple Ukraine gas crises.⁶⁴⁹ It also accounts for Moscow’s disregard for Brussels and preference for dealing directly with national capitals of the EU member-states.

Regional Level Policy Actors

Regional level ministries and other executive agencies in some constituent entities of Russia exist to complement the key federal level actors overseeing oil and gas sector from Moscow. Ministries in the regions are designed to serve as a coordinating link between the policies formulated on the federal level and policies implemented locally. In practice, policy formulation is still often divorced from implementation due to uncoordinated polycentricity that has been characteristic of both Soviet and current Russian political systems (as was discussed with regards to the absence of horizontal linkages between institutions in Section 6.2.1.3 and organizations in Section 6.2.3.1).⁶⁵⁰

Although, according to the Russian constitution, all 85 subjects of the federation – republics, krais, oblasts, cities of federal significance, autonomous oblasts and autonomous okrugs – have equal rights, in reality some of these entities have accumulated more powers and have more autonomy in decision-making than others. Designated republics are generally more independent than entities like oblasts or krais. In oil and gas sector management, such republics as Komi, Tatarstan and

⁶⁴⁸ Hedlund, *Ibid.*, 29.

⁶⁴⁹ Baev and Øverland, *Ibid.*, 1078-9; Jack D. Sharples, "Russian approaches to energy security and climate change: Russian gas exports to the EU," *Environmental Politics* 22, no. 4 (2013), 691; Bahgat, *Ibid.*, 173.

⁶⁵⁰ Gustafson, *Crisis amid plenty*, 58-9, 61, 135, 164; Paik, *Ibid.*, 83; Aalto, *Ibid.*, 21.

Bashkortostan enjoyed more freedom from the central government than other oil producing regions throughout the 1990s.⁶⁵¹ With the assertion of the federal government's power since the early 2000s only Tatarstan and Bashkortostan have been able to preserve their natural resources and by association financial resources independence from Moscow.⁶⁵² Both republics belong to the Volga Federal District, which used to be the center of oil production in the RSFSR until the late 1970s, but is currently the sources of only about 20% of Russia's crude oil production (See Appendix 4). With the exception of these two republics, regional governments have been generally excluded from the license award processes since 2004. Similarly, they are not entitled to any taxes collected from the oil and gas industry operations on their territory.⁶⁵³ Therefore, the role of regional governments in the management of oil and gas resources is very limited.

Peripheral Policy Actors

The Duma, the lower house of the Federal Assembly, is peripheral to the management of the oil and gas sector. Committees on the subjects related to the oil and gas sector, numerous deputies, various interest groups, and debated opinions add to the heterogeneity of the policy arena, but these voices are "external to the formal governing apparatus".⁶⁵⁴

Research institutes represent another set of policy actors in the O&G governance. Major government bodies such as Gosplan, the State Committee on Science and Technology and key ministries all had energy research institutes conducting serious research, building scenarios and working out long-term energy plans. They have been set up quite early but started gaining importance and say in the late 1970s when the

⁶⁵¹ Campbell Watkins, "Unravelling a Riddle: The Outlook for Russian Oil," *The Energy Journal* 15, no. 01 (1994), 136.

⁶⁵² Kurlyandskaya et al., *Ibid.*, 2.

⁶⁵³ Kryukov, "Special Features of the System of Subsurface Resources' Use in Russia," 32; Adachi, *Ibid.*, 1403; Kurlyandskaya et al., *Ibid.*, 3.

⁶⁵⁴ Lane, *Ibid.*, 6.

Soviet Union started running into energy problems. In Russia, the Energy Research Institute of the Russian Academy of Sciences is the most prominent research organization and its establishment dates back to 1985.

6.2.2.2 *Securitizing Actors and Policy Stakeholders*

The decision-making related to the O&G sector has always been adversely affected by the tension between centralized control of the essential supply chains and polycentric decision-making designed to ensure their proper management. In the last half-century (1965 – 2015), with the exception of prevailing decentralization for a brief period in the 1990s, central command control changed hands from the Communist Party's Central Committee in the 1960s - 1985 to the USSR Council of Ministers in 1985 – 1991 and finally to the Russian President and Presidential Administration in 2000 onwards. These powerful actors have served as aggregators of multiple interests in the sector and provided a unified oversight of the O&G supply chains.

Polycentricity of decision-making in the oil and gas sector is represented by multiple narrow interests below the central leadership's control. Numerous ministries, associations and enterprises, whose duties and resources might be complementary or overlapping, govern every segment of supply chains.⁶⁵⁵ Polycentric decision-making

⁶⁵⁵ For instance, in the Soviet Union, exploration of oil and gas resources was divided between the Ministry of Geology, Ministry of Petroleum Industry, and Ministry of Gas Industry (Hewett, *Ibid.*, 10). In the confusion of the early 1990s' reforms, two organizations represented USSR abroad, Soizugasexport (formerly under the Ministry of External Trade) and Zarubezhgas (a foreign gas trade subsidiary created by the newly formed Gazprom) (Kryukov, *The Institutional Structure*, 223). Also, in Russia of the 1990s, upstream activities were split between two federal level agencies, the Committee on Geology and Mineral Resources (Geolcom) and the Ministry of Fuels and Energy (Mintopenergo), which performed 63% and 37% of exploration drilling respectively (N. A. Krylov, A. A. Bokserman and Evgenii Romanovich. Stavrovskii, *The oil industry of the former Soviet Union: reserves and prospects, extraction, transportation* (Australia: Gordon and Breach Science Publishers, 1998), 63-64). Responsibilities of the Federal Energy Commission as the pipeline tariffs regulator and of the Mintopenergo as the export system manager inevitably overlapped when oil pipelines crossed Russian borders (Bruce Kellison, "Tiumen, Decentralization, and Center-Periphery Tension," in *The political economy of Russian oil*, ed., David Stuart Lane (Lanham, MD: Rowman & Littlefield, 1999), 139). When strategic sectors were decided upon in the early 2000s, the Ministry of Natural Resources, Mintopenergo and Federal Security Service (FSB) had to work together on issues of foreign ownership in the O&G sector and designation of certain deposits as strategic (Adachi, *Ibid.*, 1405-6).

is supposed to benefit both the sector and the state, but in practice it has had a negative effect.⁶⁵⁶ With regards to the O&G sector, oil and gas development in Western Siberia at the expense of infrastructure construction in the same region and oil and gas development and production elsewhere in the country was undertaken in the 1970s.⁶⁵⁷ In addition to regionalism, it was and still is common for actors to form alliances inside and across various organizations in search of political protection and influence. These actors' strategies usually prioritize their short-term interests and not the sector's or the state's long-term objectives. As a result, tasks outside the scope of prioritized projects are often neglected, and local administrators without support from the center have no tools to fight negligence.⁶⁵⁸

Hence, the heterogeneity of the O&G supply chains management policy arena in the USSR and post-Soviet Russia was and remains compromised by strong centralization tendencies of the political system and weak institutional checks and balances. The combination of these factors results in a relatively easy rise of one type of securitization actor – a dominant decision-maker. In the Soviet Union, it was the General Secretary. In Russia, it is the President. As securitizing actors, the General Secretary and the President draw their power from the broader institutional environment rather than a specific policy arena managing oil and gas supply chains.

Although the process of securitization raises O&G supply chains on the government agenda, it has long-term negative implications for the sector because dominant decision-makers link threats to O&G supply and demand to their own security (i.e., leadership position) as opposed to the security of the sector, national economy or

⁶⁵⁶ It often produced the phenomenon of “regionalism” when a priority is given to particular projects in one locality at the expense of other projects in the same place and general development of other regions (Gustafson, *Crisis amid plenty*, 302).

⁶⁵⁷ Eric A. Jones, *The bureaucratic politics of Soviet energy policy in the late Brezhnev period: 1976 - 1982: policy process and the energy balance*, PhD Dissertation (University of Michigan, 1988), 358-9; Gustafson, *Ibid.*, 303.

⁶⁵⁸ Gustafson, *Crisis amid plenty*, 302-3, 306.

national security. Hence, policy solutions are directly influenced by their time horizons and do not exceed the leaders' term in office.

Moreover, the ascent of other types of securitizing actors from within the policy arena – a policy entrepreneur or a policy broker – is unlikely either because (1) a dominant decision-maker would try to avoid competition at all costs, or because (2) in the absence of a strong leader, the institutional ecosystem does not provide policy actors with the tools to consolidate varying interests and use policy arena heterogeneity to their advantage. The first case explains the dominant role of centralization, in the context of which regional governments and ministerial units are devoid of any significant power. The second case is ensured by the conflict inherent in relations between different policy actors and indispensable role of the top leaders (who can at the same time be dominant securitizing actors) in sector-specific policy processes.

Finally, as the Soviet Union and Russia's successful engagement with the international O&G markets demonstrated, securitization of O&G supply chains can persist despite evident economic benefits of trade and cooperation and in the absence of additional securitization measures or new threats to supplies. This was the case with the oil supply chains throughout the 1970s and gas supply chains throughout the 1990s.

6.2.2.3 Summary

Examination of the policy arena and major groups of policy actors demonstrates the unique position of the O&G sector in Russia's national energy complex as well as broader economic and political systems. While three groups of actors are distinguished – central level, regional level and peripheral actors, top leaders at the central level are by far the most influential players in the management of O&G supply chains. Also, there is no strong interdependence between central and regional

level actors, which puts the latter at a disadvantage in their ability to participate in the policy-making process and gives the former a lot of freedom.

Despite the dominance of central level actors, the policy arena governing O&G supply chains is heterogeneous. The presence of a variety of interests results in cooperation as well as tension, but generally restrains the emergence of securitizing actors among state commissions and ministries. At the same time, the heterogeneity of the policy arena is vulnerable to the rise of a dominant securitizing actor whose mandate is larger than that of O&G sector specific organizations. Hence, the participation of such high-ranking actors as the President in the securitization of one sector suggests that securitization trends might not be limited to O&G supply chains, and their source of origin is the broader institutional environment rather than the analyzed policy arena.

6.2.3 Type III Inputs: Institutions – Referent Object Link

6.2.3.1 O&G Supply Chains Institutions Decomposed

The history of Russian statehood dates as far back as the 9th century, but the post-Soviet Russian state was established only in 1991. Hence, the current institutional environment underpinning the state is still in its formative years and, as a result, the upper institutional layers including the three components of the institutional arrangements are very fluid. In fact, the state of the institutional arrangement governing Russia's O&G sector in the 2010s is comparable with that of Canada in the 1960s and China in the early 1990s. As a referent object, the O&G sector has an unfair advantage of being more mature than the legal, policy and administrative arrangement frameworks designed to keep it in check. At the same time, the sector lacks the advantages of a mature institutional environment with smooth operating mechanisms and transparent regulations.

1960s – 1980s: Institutional Arrangement without Legal Framework

In the Soviet Union, the heterogenous policy arena governed O&G supply chains, but the sector itself was homogenous with only designated government agencies allowed to participate. Since the government was the single owner of resources and the operator⁶⁵⁹ of the entire sector, and actors on the ground were directly responsible to their parent ministries and ultimately the Council of Ministers and the Politburo, there was no need to develop an elaborate legal framework.

The first significant laws and regulations issued by the Soviet government started to appear in the late 1980s when the O&G industry was in dire need of foreign investment and the entire economy was thirsty for hard currency much of which came from O&G exports. The government attempted to create a favorable environment based on transparent rules that would attract investors. Joint ventures with foreign participation were to pay lower taxes, freely export their production without a license, and keep all income from sales.⁶⁶⁰ However, many new pieces of legislation⁶⁶¹ were at odds with the Constitution, contradicted one other, and failed to attract sizeable foreign investment.⁶⁶²

If the legal framework for oil and gas has shown some improvement since the late 1980s, the policy framework governing the sector has always been much less clearly defined. It has too many moving parts outside of the sector's control and offers too few precise objectives. For example, today, elements beyond the sector's sphere of influence include Russia's National Security Concept (2000),⁶⁶³ as well as the periodically updated National Security Strategy⁶⁶⁴ and Energy Strategy.⁶⁶⁵ These

⁶⁵⁹ Hassmann, *Ibid.*, 33.

⁶⁶⁰ Kryukov, *The Institutional Structure*, 183.

⁶⁶¹ These included the Joint Venture Law (1987), the Law on State Enterprises (1987), and Basic Provisions for Fundamental Perestroika of Economic Management (1987).

⁶⁶² Gochenour, *Ibid.*, 705; Considine and Kerr, *Ibid.*

⁶⁶³ Initially adopted in 1997 and updated in 2000: Government of the Russian Federation, *Conception of National Security*, Russia's Security Council (December 17, 1997).

⁶⁶⁴ Most recently updated on December 31, 2015.

⁶⁶⁵ Precursors of Russia's energy strategy date back to 1992, 1995 and 2000. The first energy strategy was approved in 2003. Current version of the energy strategy was adopted in 2009 and covers the period

guiding documents are broad, offer abstract definitions of energy security, provide no specific instruments to address challenges and yet have a definitive effect on the overall direction of the O&G sector. Current editions of the National Security Strategy and Energy Strategy share the theme of “increasing effectiveness of state control over the energy and fuel industry” serving the goal of ensuring Russia’s energy security.⁶⁶⁶ Moreover, the goals of foreign energy policy assume close cooperation between the state and companies, and include the following:

- “appreciation [of] Russia’s national interests in the... world energy markets;
- provision of... guaranteed demand and sound prices for major exported... resources;
- synchronized activity of the state and energy companies.”⁶⁶⁷

Programs specific to the oil and gas sub-sectors within the energy and fuel complex are designed as the roadmaps for achieving the above objectives and similar ones in the past. In the gas sub-sector, the first relevant policy dates back to 1956 when the Ministry of Gas Industry was established and a new fuel policy inclusive of gas was introduced. Since the early 1980s gas was treated as a bridge fuel between increasingly unreliable oil and its future replacement in the form of combined coal and nuclear energy. In the oil sub-sector, policies have historically been reactive, short-term in nature and often addressed specific production crises.⁶⁶⁸ In-between crisis responses, the sub-sector received guidance based only on annual and five-year targets, which ignored essential policy areas like conservation. Energy conservation, in general, and oil conservation, in particular, were the victims of “inertia,

up to 2030. The draft of Energy Strategy of Russia for the Period up to 2035 is under consideration (as of July 2016).

⁶⁶⁶ National Security Strategy, Article 61; Energy Strategy, V.4. Development of Domestic Energy Markets.

⁶⁶⁷ Energy Strategy of Russia for the Period up to 2030, V.9. Foreign Energy Policy, 57.

⁶⁶⁸ Examples of such policies were Brezhnev’s crash campaign of 1977 and Gorbachev’s attempt to counter yet another production slowdown in 1986. Both times, a surge in investment served as a solution that proved temporary and inefficient in the long-term (Gustafson, *Crisis amid plenty*, 28-9, 58-9, 67).

uncertainty, expense,” and lack of political attention.⁶⁶⁹ A number of conservation measures were formulated as early as 1973, but comprehensive implementation began only in 1983 – 1985 as part of Andropov’s energy program and oil policy review.⁶⁷⁰ Overall, the lack of decisive action in the area of conservation reflected the inability of policy actors to reconcile their differences in the 1970s and their fear of embarking on a risky, yet more promising, road in the 1980s.

Ambiguity of the policy framework has often been exacerbated by the limitations of the administrative arrangements, where organizational conflict remains pervasive. Many ministries are still simultaneously involved in several arguments on different aspects of O&G resources governance. In the 1970s – 1980s, the Ministry of Geology tended to overstate, while the Ministry of the Oil Industry tended to understate reserves in order to comply with the annual targets set by Gosplan.⁶⁷¹ Jurisdiction over offshore resources was delegated to the oil industry before 1978 and after 1988, while the gas industry received a full mandate over offshore exploration in 1978 – 1988; finally, Russian regional governments claimed rights to these resources throughout the 1990s until the federal government rejected such claims in the early 2000s.⁶⁷² Different sets of ministries⁶⁷³ as well as regional governments have been involved in conflicts over pricing, tariffs, taxation and resource ownership throughout the 1990s and 2000s.⁶⁷⁴ Finally, the problem of flaring, which dates back to the origins of the gas industry in the USSR, is still prominent because of inter-organizational conflict between oil and gas producers and relevant government agencies.⁶⁷⁵ Thus, the system lacks a mechanism for reconciling differences between

⁶⁶⁹ Gustafson, *Ibid.*, 228.

⁶⁷⁰ Hewett, *Ibid.*, 131-2; Gustafson, *Ibid.*, 49, 61, 242, 339.

⁶⁷¹ Gustafson, *Ibid.*, 72-3.

⁶⁷² Gustafson, *Ibid.*, 301; Gochenour, *Ibid.*, 708.

⁶⁷³ including Mintopenergo, Ministry of Natural Resources, State Property Committee, Ministry of Economic Development and Trade, Federal Energy Commission, Finance Ministry and others

⁶⁷⁴ Kryukov, *The Institutional Structure*, 128; Dale F. Gray, *Evaluation of Taxes and Revenues from the Energy Sector in the Baltics, Russia, and Other Former Soviet Union Countries*, IMF Working Paper No. 98/34 (1998), 18; Lane, *Ibid.*, 5; Adachi, *Ibid.*, 1399-400, 1403-4; Gustafson, *Wheel of Fortune*, 380; Konoplyanik, *Ibid.*, 57-8.

⁶⁷⁵ Goldman, *Ibid.*, 47; Kryukov, *The Institutional Structure*.

conflicting organizations. The responsibility to moderate inter-organizational relations fell on the shoulders of the Council of Ministers in 1984 when MGP and MNGS refused to cooperate and prioritize Yamburg gas development.⁶⁷⁶ The history repeated itself when the Ministry of Natural Resources had to step in and reverse geological asset privatization in 2008⁶⁷⁷ after the federal government had miscalculated the willingness of the private sector to invest in geological exploration and downsized its financing significantly in 1992 – 2005.

The origins of various administrative units in the O&G sector have also contributed to continuous tension between them. While the Ministry of Petroleum and Gas Construction was created for the development of Siberian natural resources, other primary O&G ministries including the Ministry of Geology “originated outside Siberia.”⁶⁷⁸ This organizational history resulted in reluctance expressed by the Ministries of Oil Industry, Gas Industry and Geology to prioritize Western Siberian O&G exploration and production. By the early 1980s “none of the top leaders of these agencies had made their career in Siberia”⁶⁷⁹ and by the late 1980s, the Ministry of Petroleum Industry performed most of its exploration activities elsewhere.

1990s: Divergent Paths of the Oil and Gas Sub-Sectors

In the 1990s, legislation on foreign investment and the management of domestic mineral resources proliferated. The major law “On Subsoil” was enacted in February 1992 and still serves as the foundation for the governance of oil and gas resources in Russia.⁶⁸⁰ The first private and state-owned oil companies in the history of Russia were a result of multi-step reform⁶⁸¹ based on the November 1992 Presidential Decree

⁶⁷⁶ Gustafson, *Crisis amid plenty*, 166.

⁶⁷⁷ Moe and Kryukov, *Ibid.*, 315, 318-9.

⁶⁷⁸ Gustafson, *Crisis amid plenty*, 298-300.

⁶⁷⁹ Gustafson, *Ibid.*, 299.

⁶⁸⁰ According to the law, the Russian state is the sole owner of subsoil resources and it grants licenses for exploration and production to interested foreign and domestic companies. See Russian Law “On Subsoil” (1992), Article 1.2.

⁶⁸¹ For a detailed account of the reform in 1992 – 1998 see Kryukov, *The Institutional Structure*, 101-2.

#1403.⁶⁸² The long overdue legislation on the status and management of the continental shelf⁶⁸³ and guidelines on the crude oil products⁶⁸⁴ were formulated in 1995-1998.

Not only did Russia remain interested in foreign capital, it also had to address new problems associated with the break-up of the Soviet Union. For instance, the Soviet oil services industry was concentrated outside Russian borders, in Azerbaijan, Georgia and Ukraine;⁶⁸⁵ large gas storage facilities were located in Ukraine;⁶⁸⁶ and, finally, oil and gas pipelines (See Appendix 6) were now crossing independent state borders putting transit out of Moscow's control.⁶⁸⁷ Although generous joint venture incentives were gradually phased out in January 1992 – September 1997, the Russian government was hoping to amplify foreign interest in the O&G sector by introducing Production Sharing Agreements (PSAs)⁶⁸⁸ in December 1995. Unfortunately, it failed to attract and sustain the desired volume of foreign investment, and oil production in Russia slowed down significantly by 1998. No PSAs have been signed since the late 1990s, and licensing became the predominant mode of O&G sector operation with the introduction of a unified tax regime in 2001.⁶⁸⁹

While Russia's oil sub-sector underwent radical reorganization in the 1990s, the gas sub-sector took a completely different route. The Russian government emphasized the role of gas industry in the national economic development as early as 1992.⁶⁹⁰

⁶⁸² In the years following the implementation of the Presidential Decree #1403, legislation was passed to create Surgutneftegaz, LUKOIL, YUKOS, and Rosneft as well as Transneftproduct and Transneft, SIDANKO, East Oil Company, Slavneft, ONAKO, and the East Siberian Oil & Gas Company. State-owned Rosneft and several private companies dominate Russia's oil market today, and the dynamics in the sector have been discussed earlier, in Section 6.2.3.1.

⁶⁸³ Federal Law "On the Continental Shelf of the Russian Federation" (1995) and Federal Law "On the Exclusive Economic Zone of the Russian Federation" (1998).

⁶⁸⁴ Parliament decree #897 (1995) on licensing the activity on maintenance and exploitation of oil product bases and petroleum stations; Parliament decree #394 (1996) on licensing the activity on storing crude oil and oil products.

⁶⁸⁵ Watkins, *Ibid.*, 142.

⁶⁸⁶ Högselius, *Ibid.*, 203-4.

⁶⁸⁷ Watkins, *Ibid.*, 136.

⁶⁸⁸ under the Federal Law "On Production Sharing Agreements"

⁶⁸⁹ A unified tax regime led to the establishment of flat taxes and de facto cancellation of the PSA regime by 2006.

⁶⁹⁰ Presidential decrees #538, #539.

Several presidential decrees made it clear that all gas industry assets, including the entire pipeline infrastructure (Unified Gas Supply System), were to remain in the hands of the federal government. Gazprom received the status of natural monopoly,⁶⁹¹ is in charge of the entire gas supply chain⁶⁹², and is the sole exporter of pipeline gas.⁶⁹³ Since December 2013, the gas monopolist no longer has an exclusive right to export LNG.⁶⁹⁴ Although Gazprom unbundling is still out of the question, the government is gradually changing the rules of access to the gas pipeline network by independent producers in order to establish a wholesale gas market in the near future.⁶⁹⁵

Unlike the oil sub-sector's legal framework and administrative arrangements, the oil policy framework of the 1990s saw little change in detailed programs. The federal government was active in opening up the oil sub-sector to foreign investors. Otherwise, the state was divorced from the oil industry's daily operations. Policies in the 2000s scaled back foreign involvement and brought back the dominant role of the state as the oil industry player (not just the owner of resources). Yet another decline in oil production, this time in West Siberia, prompted the government to turn to East Siberia and Far East oil development programs since 2008. These have been a priority for the oil sub-sector for almost a decade, and are reflected in the regional breakdown of crude oil production (See Appendix 4).

2000s: Escalating Government Involvement

In the gas sub-sector, the first big policy since the 1980s was put forward only in 2002 when the Ministry of Economic Development brought forward the Concept for Developing the Gas Market. However, it was shelved until 2006 when natural gas conservation and price liberalization measures were introduced in a series of reforms

⁶⁹¹ in accordance with the Federal Law "On Natural Monopolies" (1995).

⁶⁹² in accordance with The Federal Law "On Gas Supply in the Russian Federation (1999).

⁶⁹³ in accordance with the Federal Law #117-FZ "On the Export of Gas" (2006).

⁶⁹⁴ "Russian parliament opens up LNG exports for Gazprom's rivals," Reuters (November 27, 2013).

⁶⁹⁵ Andrei V. Belyi and Kim Talus, *States and markets in hydrocarbon sectors* (Houndsmills, Basingstoke, Hampshire: Palgrave Macmillan, 2015), 112.

aimed at curbing gas demand, increasing gas tariffs, establishing gas delivery contracts, and significantly increasing mineral extraction tax (MET).⁶⁹⁶ In 2008, the gas market reform aimed at closing the gap between domestic and international prices was accelerated.⁶⁹⁷ Finally, Gazprom has increasingly come under pressure to improve its performance in order to preserve its natural monopoly status in pipeline gas transportation in Russia and beyond. The policy direction of the federal government has contributed to the erosion of Gazprom's dominance domestically. One of the most recent and extensive policies in the gas sub-sector is the Eastern Gas Program implemented in conjunction with Russia's pivot to Asia and O&G companies' search for new clients since September 2007.⁶⁹⁸

In addition to policies specific to the oil and gas sub-sectors, there are a number of initiatives encompassing oil and gas sector as a whole. Some programs for the development of resources in Eastern Siberia and Russia's Far East were announced in the late 1980s and early 1990s, but the state had no resources to implement them. Since the early 2000s, old programs have been revitalized and new programs for geological exploration and replenishment of the national resource base have been introduced.⁶⁹⁹ With regards to the development of Eastern Siberia and Russia's Far East, the issue of O&G industry leaders committing to projects far away from the headquarters of their organizations and state-owned companies is still relevant today.

⁶⁹⁶ Vladimir Milov, Leonard Coburn, and Igor Danchenko, "Russia's Energy Policy, 1992-2005," *Eurasian Geography and Economics* 47, no. 3 (2006), 293; Matthew J. Sagers, "Developments in Russian Gas Production Since 1998: Russia's Evolving Gas Supply Strategy," *Eurasian Geography and Economics* 48, no. 6 (2007), 656-7.

⁶⁹⁷ Oleg S. Anashkin and Valeriy A. Kryukov, "On the complex character of the regulation of the subsurface use process (oil and gas economic sector case study)," *Mineral Resources of Russia. Economics and Management* 3 (2010), 23.

⁶⁹⁸ "Gazprom's strategic objectives in East are to supply Russian consumers with natural gas and create center for gas export to Asia-Pacific," Gazprom (June 18, 2013); James Henderson and Jonathan Stern, *The Potential Impact on Asia Gas Markets of Russia's Eastern Gas Strategy* (The Oxford Institute for Energy Studies, Oxford University, February 2014).

⁶⁹⁹ They include the Long-Term State Program for the Study of Subsurface Resources and the Replenishment of the Mineral Raw Material Base (2005 – 2020), Program for the Integrated Development of Hydrocarbon resources of the North-West Russia, Program for Geological Surveying and Provision for Use of Raw Hydrocarbon Fields in Eastern Siberia and the Republic of Sakha (Yakutia) and Conception of the state program for exploration and exploitation of the continental shelf of the Russian Federation (Paik, *Ibid.*, 32, 35; Michael V. Alexeev and Shlomo Weber, *The Oxford handbook of the Russian economy* (New York: Oxford University Press, 2013), 421).

In 2012, the Ministry for the Development of the Russian Far East (Minvostokrazvitiya) was established with two headquarters, one in Moscow and one in Khabarovsk located near the Chinese border. In June 2014, Gazprom, Rosneft and Transneft became part of the list of state-owned companies ordered to move their headquarters from Moscow to the Far East in order to boost the region's economic development.⁷⁰⁰

If in the 1990s legal changes laid out the framework for co-existence of traditional and new players in the O&G sector, since the mid-2000s measures of tighter control and deeper government involvement have been introduced. The swings in regulatory control are made possible by the Russian Constitution (1993), which, similar to the Soviet Constitution (1977)⁷⁰¹, does not provide much detail on the governance of natural resources⁷⁰², thus, allowing for relatively easy manipulation of the sector-specific legislation. The subsoil law was amended in April 2008 with the enactment of the strategic sectors law, Federal Law #57-FZ, which effectively limited foreign participation in the oil and gas sector through the establishment of criteria for fields of special importance to Russia's national security. Also, a consensus is growing that the unified tax regime, which significantly improved the government's ability to collect rent from O&G companies,⁷⁰³ is not ideal for a country with resources in diverse locations and of varying quality.⁷⁰⁴ Since comprehensive reform proved difficult due to existing challenges in the administrative arrangements, the government started to gradually diverge from the unified investment and taxation

⁷⁰⁰ "Giant state companies wait to hear on 'Go East' move," *The Siberian Times* (June 6, 2014).

⁷⁰¹ Prior to 1977, the Soviet Union had two editions of its constitution: 1924 and 1936, but they are not analyzed here. According to the Article 11 of the Soviet Constitution, "the land [and] its minerals... are the exclusive property of the state."

⁷⁰² The Russian Constitution stipulates that mineral resources can be subject to private and public forms of ownership (Article 9.2), and that they fall under the joint jurisdiction of federal and regional governments (Article 72 c (72 в) 72 i (72 к)).

⁷⁰³ In 2004, oil companies "paid roughly ten times more in taxes" than in 1999 (See Gaddy and Ickes, *Ibid.*, 564).

⁷⁰⁴ Kryukov, *The Institutional Structure*, 134-6; Konoplyanik, *Ibid.*, 35-7.

system through project- and region-specific subsidies and privileges.⁷⁰⁵ As a result, every new project requires a negotiation of fiscal conditions between O&G sector participants and the government. This tendency undermines systemic application of the legal framework and ensures that the central government is an indispensable component of all decisions in the O&G sector.

Finally, the element of energy policy that received increased attention around the world, but has been largely unattended to by the Russian government, is domestic environmental policy. Instead, Russia is more concerned with environmental policy of its foreign customers because it has the potential to threaten “the security of Russia’s hydrocarbon exports.”⁷⁰⁶

Summary

Evidence from the governance of Russia’s O&G sector suggests that neither the absence nor the presence of clear policies automatically makes a referent object predisposed to securitization. In the 1980s, policies treated oil supply chains as threatened and actively promoted securitization. Securitization did not affect gas supply chains because policies regarded it as an abundant bridge fuel. In the 1990s, the gas sub-sector exhibited securitization trends in the absence of clear policy guidelines, while the oil sub-sector did not under the same conditions. In the 2000s, sources of O&G supply chain securitization were located in the broader institutional environment, namely, national security strategy, which clearly politicizes the oil and gas sector by making the state a dominant actor at home and abroad.

The legal framework is in the process of institutional development. It was largely non-existent until the late 1980s, was established to guide new international and domestic private sector players in the 1990s, and evolved into a system constraining

⁷⁰⁵ EY, "Oil and Gas Tax Alert: Russian Federation Oil Tax Reform," (September 2011), 4-5; Ivetta Gerasimchyuk, "State Support of the Oil and Gas Development in Russia: What Price?" (February 2012), 36; EY, "Global Oil and Gas Tax Guide," (January 2015), 517-8.

⁷⁰⁶ Sharples, *Ibid.*, 687-8.

the activity of these players in the 2000s. Development of the legal framework contributed to the securitization of gas, but not oil, supply chains in the 1990s. In the oil sub-sector, the legal framework paved the way for asset transfer from the government to the private sector and divorced the central government from day-to-day management. In the gas sub-sector, it encouraged asset consolidation in the hands of one state-owned monopoly and linked Gazprom's mission with the Russian national interest, which escalated any threats to the supply chain to the highest level of government priorities. In the 2000s, the legal framework granted Rosneft functions similar to those of Gazprom, thus replicating gas sub-sector securitization trends in the oil sub-sector. Finally, arising from the imperfect legal system and surfacing in other aspects of O&G sector performance are the tight control of oil and gas resources by the federal government,⁷⁰⁷ the tension between administrative and civil law principles in the tax regime resulting in an ineffective property rights system,⁷⁰⁸ and questionable transparency of rules defining government – private sector dynamics as well as participation of foreign investors.⁷⁰⁹

As the most tangible component of the institutional arrangement, administrative arrangements of Russia's O&G sector enact the core principles of legal and policy frameworks by establishing an organizational framework that defines jurisdictional boundaries of participating actors and outlines channels of communication between them. Administrative arrangements of Russia's O&G have several defining features, which persevered throughout the Soviet regime and were reinforced further in the institutional environment of the modern Russian state: centralization and polycentric decision-making have always been problematic and made administration of O&G supply chains inconsistent; organizational structure has been fraught with conflict

⁷⁰⁷ Gustafson, *Wheel of Fortune*, 96; Konoplyanik, *Ibid.*, 32.

⁷⁰⁸ Considine and Kerr, *Ibid.*, 305; Adachi, *Ibid.*, 1396-7; Konoplyanik, *Ibid.*, 31.

⁷⁰⁹ Bahgat, *Ibid.*, 163; Belyi and Talus, *Ibid.*, 323.

between organizational actors; and organizational origins and history have had a visible effect on the behavior of various administrative units.

The challenges that administrative arrangements encounter stem from the characteristics of the broader institutional environment. As a result, the administrative arrangements and the institutional environment as a whole have restricted the emergence and development of securitizing actors from within the O&G policy arena. Aspiring securitizing actors have no choice but seek alliances with actors outside O&G policy arena and hierarchically superior to them. Given an already high position of the O&G sector on the government agenda, their choices are limited to the top leadership of the country: Central Committee and Politburo in the Soviet Union and President and presidential administration in Russia. As a result, actions of the federal government and policy actors with the mandate specific to the O&G sector are generally closely coordinated, and emergence of policy brokers or policy entrepreneurs as securitizing actors is unlikely.

6.2.3.2 Referent Object Performance

The evolution of Russia's O&G sector from 1968 to 2015 can be divided into three periods. The first period encompasses the Soviet era up to 1991 and is characterized by absolute dominance of the state represented by ministries and their subordinate units. During this period, there was no distinction between policy-makers in charge of policy formulation, implementation and evaluation, and operators in charge of O&G supply chains. The second period coincides with economic reforms and market liberalization (1991 – 1999). This period gave rise to two major novelties in the Russian oil sub-sector: private and foreign participation. The gas sub-sector experienced far less dramatic changes; the monopoly of the gas ministry, transformed into a state-owned company Gazprom, was preserved. This was also the time when Russia's O&G sector had to familiarize itself with multiple levels of government

taxation. The third period (2000 – 2015) is associated with the ascent of *national champions*, state-owned O&G companies, through aggressive private asset take-overs. Rosneft and Gazprom – major national champions in the O&G sector – have both benefited significantly from favorable policy and legal frameworks since the early 2000s. However, Gazprom, which initially held monopoly rights on all components of the national gas supply chain, is now facing credible competition from fellow NOC Rosneft and independent gas producers.

Absolute State Dominance (1968 – 1991)

The special place of oil and gas resources in fueling (production) and financing (exports) the development of the Soviet Union led to an enduring inseparability of the O&G sector from state performance. Prior to 1991, the close association of the sector's successes and failures with those of the Soviet state resulted in the complete subordination of the sector to the state annual and five-year plans at the expense of sector-specific challenges⁷¹⁰ such as mounting inefficiencies and rising costs.

In effect, the government “treated minerals in the ground as free goods.”⁷¹¹ “No value added or profits were accrued” along the supply chain, with local oil enterprises being “reimbursed for [their] incurred costs” and rents pooled together into a single pool of finances by the central government.⁷¹² The single most important measure of performance used to be (un-)met production objectives. In the absence of policies designed to curb demand and promote conservation, production targets were constantly growing. As a result, since the late 1970s, multiple consecutive crises of missed targets have been tearing the oil industry apart, but solutions were short-term,

⁷¹⁰ Alexander Nazaroff, "The Soviet Oil Industry," *Russian Review* 1, no. 1 (1941), 86; Iain F. Elliot, *The Soviet energy balance: natural gas, other fossil fuels, and alternative power sources* (New York: Praeger, 1974), 79; John Daniel Park, *The Oil and Gas Industries of the Soviet Union and Eastern Europe in relation to the Comecon Energy Balance and the World Petroleum Market*, PhD Thesis (University of Glasgow, 1977), 154; Hewett, *Ibid.*, 12-3, 72; Gustafson, *Crisis amid plenty*, 105, 109, 116-7, 120, 123; Legvold and Grace, *Ibid.*, 74.

⁷¹¹ Goldman, *Ibid.*, 43-4.

⁷¹² Gochenour, *Ibid.*, 705, 713.

additional investment was wasted on wrong projects,⁷¹³ and disrupted investment did not help either⁷¹⁴; finally, the real sources of crises rooted in the institutional environment were ignored. (See Section 6.2.1.2)

By the early 1980s, a constant atmosphere of emergency in the oil sub-sector⁷¹⁵ allowed major actors in the gas industry, which until then had remained in the shadow of the oil industry, to exploit the perception of insecure oil supply chains in order to promote natural gas as a reliable replacement for oil. In other words, the gas industry securitized oil supply chains for its own benefit including increased attention from the political elite and enlarged investment. Nevertheless, limited by many of the same problems originating from the institutional environment similar to the oil industry, the gas industry could not react fast enough to a sudden advantage: investment could not be absorbed fully and some large projects were prioritized over smaller yet essential ones, field services were delayed, and infrastructure was insufficient.

Privatization (1991 – 1999)

In the 1990s, the oil and gas sub-sectors appeared to take different routes in their respective relationships with the state. With the collapse of the Soviet Union, Russia embarked on the road of oil market liberalization and, at the same time, gas industry consolidation in the hands of the state. In the oil sector, the decision was made to transform state-owned oil enterprises into joint stock companies and gradually transfer ownership from the government to private shareholders. The gas ministry, with its assets and system of pipelines, was to be kept intact under a state enterprise – Gazprom, which was responsible for 92% of gas production in 1999.⁷¹⁶ By the late 1990s, dozens of private vertically integrated oil companies and one gas company

⁷¹³ Gustafson, *Crisis amid plenty*, 118-119.

⁷¹⁴ *Ibid.*, 107.

⁷¹⁵ *Ibid.*, 59.

⁷¹⁶ Sagers, *Ibid.*, 658; Gerasimchyuk, *Ibid.*, 30; Aalto, *Ibid.*, 23.

had taken center stage as the major players of the Russian O&G sector (See Table 6.2).

Table 6.2: Key Players in Russia’s Oil and Gas Sector (1991 – 1999)

	1991 - 1992	1993 - 1994	1995 - 1997	1998 - 1999
Oil	LUKOIL	LUKOIL	LUKOIL	LUKOIL
	Rosneft	Rosneft	Rosneft	Rosneft
	Zarubezhneft	Zarubezhneft	Zarubezhneft	Zarubezhneft
	Bashneft	Bashneft	Bashneft	Bashneft
	Tatneft	Tatneft	Tatneft	Tatneft
	Surgutneftegas	Surgutneftegas	Surgutneftegas	Surgutneftegas
		YUKOS	YUKOS	YUKOS
		Slavneft	Slavneft	Slavneft
		Eastern Oil Co.		
		Orenburg Oil Co.	Orenburg Oil Co.	Orenburg Oil Co.
		Siberia Far-East Oil	Siberia Far-East Oil	
			TNK	TNK
		Sibneft	Sibneft	
Oil Transportation	Transneft	Transneft	Transneft	Transneft
		Transnefteproduct	Transnefteproduct	Transnefteproduct
				CPC
Gas	Gazprom	Gazprom	Gazprom	Gazprom
	Itera	Itera	Itera	Itera
		Novafininvest	Novafininvest	Novafininvest
		Northgas	Northgas	Northgas

Source: Author

Notes: state-owned company

CPC – Caspian Pipeline Consortium

Gas transportation is not included as it remained unchanged in 1991 – 1999, under control of Gazprom

The oil business “was a money-losing proposition”⁷¹⁷ throughout the last decade of the 20th century. It was hindered by the relatively low international oil prices and the

⁷¹⁷ Legvold and Grace, Ibid., 65-6.

shortcomings of immature domestic institutional arrangements. Limitations of the institutional arrangements surfaced in daily activities as inconsistent policy directives, poorly conceived legislation and multi-level, multi-agency fiscal mechanisms. The reform of the economic system was ongoing, but newly created companies were expected to make money and contribute to federal and regional government budgets. The fact that O&G sellers and buyers were constrained by the same institutional environment was largely ignored. Even when companies were able to deliver production, their customers were not able to participate in transactions in the absence of basic legal and financial instruments such as cash, loans, and secure property rights. In these conditions, oligarchs heading the oil companies found numerous loopholes and flourished, but performance of the oil sub-sector as a whole was disappointing. As a result, the non-payment problem became commonplace,⁷¹⁸ oil field equipment located in the former USSR countries was no longer available,⁷¹⁹ and the desperate federal government had to turn to rent sharing⁷²⁰ giving rise to the virtual economy.

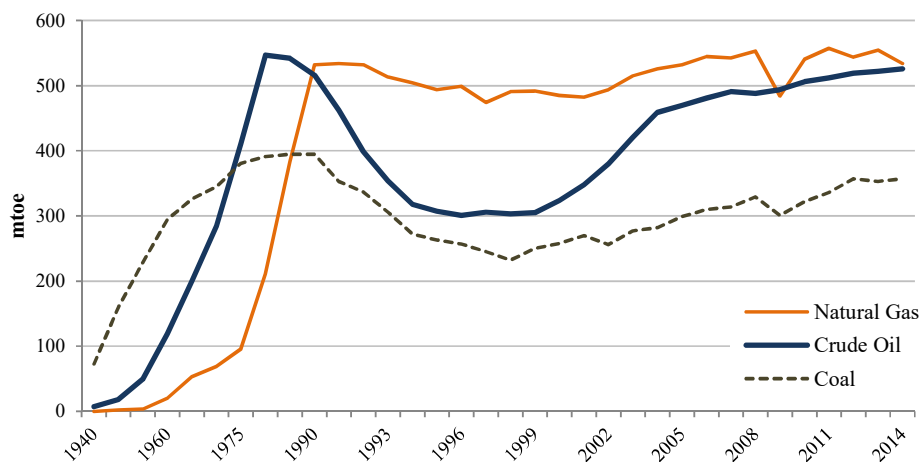
Oil production collapsed by 1998, but the gas sub-sector, that had been largely isolated from the reforms of the 1990s sustained production levels throughout the decade (See Figure 6.4). Gazprom had little to worry about as it enjoyed numerous government subsidies, a privileged position as a natural monopoly and full control of gas pipeline infrastructure for domestic distribution and exports. However, even though a slowly growing number of independent gas producers were not strong competition, by the late 1990s there were talks about privatizing and unbundling Gazprom.

⁷¹⁸ Considine and Kerr, *Ibid.*, 287-9; Legvold and Grace, *Ibid.*, 77-8; Kryukov, *The Institutional Structure*, 131-2.

⁷¹⁹ Watkins, *Ibid.*, 142; Legvold and Grace, *Ibid.*, 75-6.

⁷²⁰ In the 1990s, rent sharing developed from the central government's inability to collect taxes and new private companies' inability to secure property rights. Both sides needed allies and were forced to seek and share rent (See Gaddy and Ickes, *Ibid.*, 570; Goldman, *Petrostate*, 176).

Figure 6.4: Fossil Fuel Production in RSFSR/Russian Federation (1940 – 2014)



Data Source: Central Statistical Directorate (1940 – 1989), Federal State Statistics Service (1990 – 2014)

Notes: 'Crude Oil' includes gas condensate

Tax payment was a new responsibility for O&G companies, while tax administration was a new function for the state. Each side had no blueprints and had to develop an efficient model of behavior by trial and error. Naturally, companies were looking for ways to avoid taxes, whereas the government was trying to perfect the system of tax collection. As the overall economic situation in Russia deteriorated through the 1990s, the number of taxes imposed on oil companies increased from four in November 1990 to ten in 1994⁷²¹ totaling about 62% of the average domestic wholesale price⁷²². Moreover, it was the revenue that was taxed and not the profit meaning that taxes could exceed a company's profits in a given year.⁷²³ Thus, the taxation system in the 1990s largely ignored companies' costs, profitability, differences in geographical conditions, and quality of reserves.

Securitization of neither oil nor gas supply chains was on the sector's agenda during this period. In the oil sub-sector, new players were busy consolidating their assets and

⁷²¹ Watkins, *Ibid.*, 139.

⁷²² Considine and Kerr, *Ibid.*, 277-8.

⁷²³ Kryukov, *The Institutional Structure*, 133-4; Considine and Kerr, *Ibid.*, 279-80.

devising ways around government regulations. In general, short-term horizons and prospects of easy profits from developing resources inherited from the Soviet past as well as asset stripping discouraged long-term planning, investment in exploration and concerns for supply chains beyond personal interest. In the gas sub-sector, Gazprom was on a mission to preserve its monopoly, and any signs of insecure gas supply chains would damage its reputation. Hence, attempts to securitize oil and gas supply chains would attract government attention, which was undesirable for the O&G sector players. At the same time, the federal and regional governments were preoccupied with far more pressing issues like keeping the economy afloat and preserving integrity of Russia and had no resources to devote to the management of the O&G sector.

National Champions (2000 – 2015)

The credit for improving oil sector performance is usually attributed to the new federal government under President Vladimir Putin who assumed power in 2000. However, the oil sector had started to recover in 1999 due to climbing world oil prices and devaluation of the Russian currency in the previous year and, as a consequence, renewed investment into upstream activities. The election of Putin started a new era of political centralization and leadership of state-owned companies in the management of natural resources.

During this period, the state reemerged as the dominant figure in the O&G sector proving that the link established during Soviet times was deeply institutionalized and simply masked by the chaos of the 1990s.⁷²⁴ As such, the establishment of national champions in the early 2000s cannot be equated with nationalization of the O&G sector.⁷²⁵ Rather, it was a way to recapture control of the sector by transferring power

⁷²⁴ The ownership of oil and gas resources has always remained in the hands of the state. Also, although new companies were nominally private, they were a product of the redistribution of government-owned assets so as to be ultimately controlled by insiders.

⁷²⁵ Markku Kivinen, "Public and Business Actors in Russia's Energy Policy," in *Russia's energy policies: national, interregional and global levels*, ed., Pami Aalto (Cheltenham, UK: Edward Elgar, 2012), 48-9.

from disobedient oligarchs into the hands of those willing to “act as agents of the state and adhere strictly to the goals set out by [the]... state officials.”⁷²⁶ The growth of private O&G companies was curtailed, but the majority of key players of the 1990s remain influential today (See Table 6.3).

Table 6.3: Key Players in Russia’s Oil and Gas Sector (2000 – 2015)

	2000 – 2005	2006 – 2009	2010 – 2013	2014 – 2015
Oil	LUKOIL	LUKOIL	LUKOIL	LUKOIL
	Rosneft	Rosneft	Rosneft	Rosneft
	YUKOS	YUKOS		
	Slavneft	Slavneft	Slavneft	
	RussNeft	RussNeft	RussNeft	RussNeft
	Bashneft	Bashneft	Bashneft	Bashneft
	Tatneft	Tatneft	Tatneft	Tatneft
	Surgutneftegas	Surgutneftegas	Surgutneftegas	Surgutneftegas
	TNK	TNK-BP	TNK-BP	
	Sibneft	Gazprom Neft	Gazprom Neft	Gazprom Neft
	Zarubezhneft	Zarubezhneft	Zarubezhneft	Zarubezhneft
		Neftisa	Neftisa	Neftisa
			IPC	IPC
Oil Transportation	Transneft	Transneft	Transneft	Transneft
	Transnefteproduct	Transnefteproduct		
	CPC	CPC	CPC	CPC
Gas	Gazprom	Gazprom	Gazprom	Gazprom
	Itera	Itera	Itera	
	Novafininvest	Novatek	Novatek	Novatek
	Northgas	Northgas		

Source: Author

Notes: state-owned company

Gas transportation is not included as it remained unchanged in 1991 – 1999, under control of Gazprom

⁷²⁶ Goldman, *Ibid.*, 173; McCarthy and Puffer, *Ibid.*, 631.

The fiscal burden on the O&G companies increased significantly in the 2000s. By 2004 oil companies were taxed ten times more than in 1999.⁷²⁷ The current taxation regime, as of 2016, consists of mineral extraction tax (MET), corporate profit tax and export duties.⁷²⁸ Although the fiscal system is still evolving, the state has learnt from its earlier mistakes and is designing a more flexible, profit-oriented taxation system that by 2017 is supposed to take into account companies' performance, as well as differences in oil and gas field location and efficiency. But challenges remain; for instance, many subsidies are given out on the basis of specific projects rather than systematically. This tendency is damaging to the overall effectiveness of the fiscal system.⁷²⁹

As of 2015, there are over 325 oil and gas producers in Russia, but about half of them are subsidiaries of or have substantial amount of their shares in state-owned companies.⁷³⁰ These include large players such as Gazprom Neft and Novatek. In addition to Rosneft and Gazprom, the regional and federal governments in part own Bashneft, Tatneft and Zarubezhneft (See Table 6.4). Among over 150 privately owned companies only a handful are vertically integrated including LUKOIL, Surgutneftegas, RussNeft, and Neftisa. Five to eight largest companies⁷³¹ have dominated Russia's oil market since the early 2000s (See Figure 6.5) having supplied 95% of crude oil in 2004⁷³² and about 70% in 2010.⁷³³ As of 2013, state-owned companies provided more than 60% of the oil supply (See Figure 6.6). The monopoly of state-owned companies in the gas sub-sector is even more pronounced with almost 90% of production originating from Gazprom and Rosneft (See Figure 6.6). But

⁷²⁷ Gaddy and Ickes, *Ibid.*, 564; Legvold and Grace, *Ibid.*, 78.

⁷²⁸ Konoplyanik, *Ibid.*, 31; EY, "Global Oil and Gas Tax Guide," 512.

⁷²⁹ Gerasimchyuk, *Ibid.*, 36, 39; Konoplyanik, *Ibid.*, 31.

⁷³⁰ Malisheva et al., *Ibid.*, 148; Gerasimchyuk, *Ibid.*, 29.

⁷³¹ YUKOS and TNK-BP are not mentioned here as they were acquired by Rosneft.

⁷³² Paik, *Ibid.*, 28.

⁷³³ Anashkin and Kryukov, *Ibid.*, 19.

Gazprom is facing growing competition from independent gas producers, and its share of produced gas has declined from 94% in 1998⁷³⁴ to 75-77% in 2012.⁷³⁵

Table 6.4: Ownership Structure of Russia’s Major Oil and Gas Companies (as of July 2016)

Company	Key Shareholders
Rosneft ¹	Rosneftegaz* – 75.2% BP – 19.75%
Gazprom ²	Federal Agency for State Property Management* – 38.37% Rosneftegaz* – 10.97% Rosgazifikatsiya* – 0.89% ADR holders – 28.39%
Zarubezhneft ³	Federal Agency for State Property Management* – 100%
Bashneft ⁴	Federal Agency for State Property Management* – 50.08% Ministry of Land and Property Relations of the Bashkortostan Republic* – 25%
Tatneft ⁵	National Settlement Depository (under Moscow Exchange) – 59.55% Central Depository of the Tatarstan Republic* - 30.45%

Notes: * - entities representing or controlled by the Russian government

Sources: ¹ RBC, “Rosneft.”

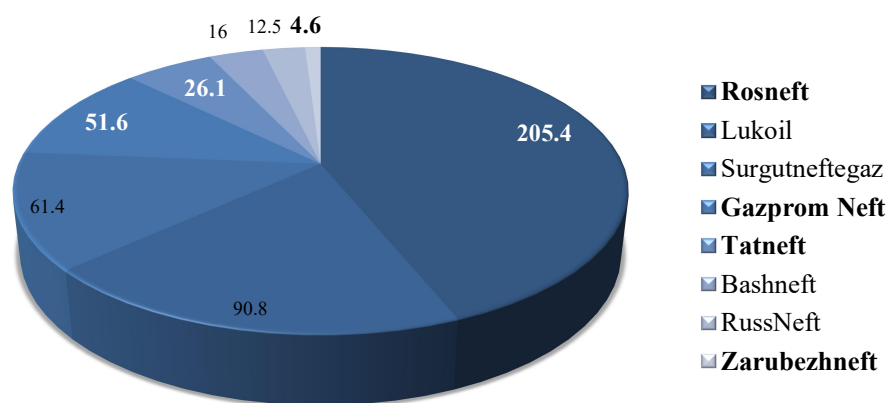
² Gazprom, “Shares.”

³ Zarubezhneft. “About Company.”

⁴ Bashneft, “Ownership Structure.”

⁵ Tatneft, “Structure of Capital.”

Figure 6.5: Oil Production by Major Russian Companies in 2013 (million tonnes)



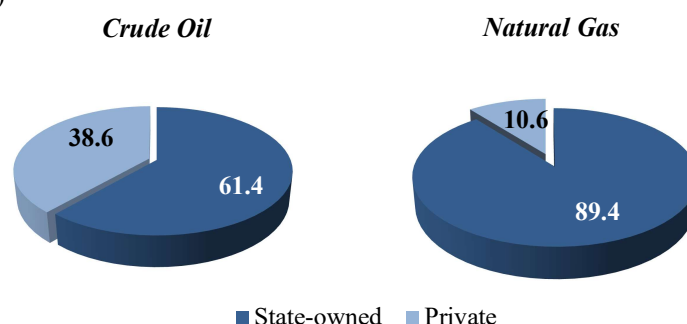
TOTAL: 468.4 million tonnes

Notes: Company names in bold represent state-owned companies

⁷³⁴ Sagers, Ibid., 658.

⁷³⁵ Anashkin and Kryukov, Ibid., 19; Gerasimchyuk, Ibid., 30.

Figure 6.6: O&G Production in Russia: State-Owned Companies vs Private Sector in 2013 (%)



Notes: State-owned oil producers include Rosneft, Gazprom Neft, Tatneft and Zarubezhneft
 Private oil producers include LUKOIL, Surgutneftegaz, Bashneft and RussNeft
 State-owned natural gas producers include Gazprom and Rosneft
 Private natural gas producer is Novatek

Rosneft and Gazprom are the principal actors in Russia’s O&G sector. Gazprom stepped into the 21st century as a clear frontrunner. But, as Rosneft expanded its resource base and gained more political support, Gazprom’s advantage has declined. The two companies have acquired interests in each other’s sub-sectors, and compete fiercely for access to new promising resources in Russia’s Far East. At the same time, Rosneft is actively engaging Gazprom’s competitors⁷³⁶ in a campaign for access to domestic and export gas pipelines.⁷³⁷ Both companies are now equally important national champions in the O&G sector. While Rosneft has been in ascent since 2008, Gazprom still has a status of “a federal monopoly,”⁷³⁸ “an integral part of the Kremlin administration,”⁷³⁹ and “it is hard to tell where Putin begins and Gazprom ends.”⁷⁴⁰

⁷³⁶ However, Demakova and Godzimirski (2012) argue that permission given to Novatek to export LNG from the Yamal peninsula should not be taken as a sign of gas exports liberalization. According to the authors the reason Novatek is an exception rather than the trend setter is that “Gennadiy Timchenko, who had good political connections, acquired a significant portion of shares in Novatek.” (Ekaterina Demakova and Jakub M. Godzimirski, “Russian External Energy Strategy: Opportunities and Constraints,” in *Dynamics of energy governance in Europe and Russia*, eds., Caroline Kuzemko, Andrei Belyi, Andreas Goldthau and Michael F. Keating (Houndmills, Basingstoke, Hampshire: Palgrave Macmillan, 2012), 159)

⁷³⁷ Hedlund, *Ibid.*, 69-70; Belyi and Talus, *Ibid.*, 104; Aalto, *Ibid.*, 23-4, Goldman, *Ibid.*, 192.

⁷³⁸ Aalto, *Ibid.*, 22.

⁷³⁹ Hedlund, *Ibid.*, 95.

⁷⁴⁰ Goldman, *Ibid.*, 143.

In theory, competition between SOEs is supposed to be beneficial for the development of a competitive market. In practice, the privileged position of these two companies suppresses participation from the private sector and creates a “quasi-market” where only state and limited private interests are represented.⁷⁴¹ But the challenge of balancing state and corporate interests is a common problem among SOEs worldwide. As Rosneft and Gazprom gain experience in the international market and their shareholding structures and resource bases diversify, the two companies are becoming “more commercially oriented.”⁷⁴² Dependence on the state is not always straightforward, and at times makes these companies vulnerable to political battles and swings in leadership priorities.

The national champions’ rivalry goes deeper than relations between individual SOEs, revealing oil vs gas dynamics in the sector. Preference for outcompeting one another instead of cooperating goes back to the mid-1950s when gas gained autonomy from the oil sector, the 1980s when gas officials used weaknesses of oil supply to their advantage, and the 1990s when the gas industry was isolated from otherwise overarching economic and administrative reforms. Moreover, the basic characteristics of oil and gas sub-sectors differ. Oil supply is more limited than that of gas,⁷⁴³ produced oil is destined mainly for export and “pays the bills abroad”, while gas is for domestic consumption and “subsidizes the economy at home,”⁷⁴⁴ and finally, the domestic oil market is integrated⁷⁴⁵ while the gas market consists of two distinct regions.⁷⁴⁶

Securitization of oil and especially gas supply chains has been progressing during the third period of the O&G sector evolution (2000 – 2015). The process was triggered

⁷⁴¹ Legvold and Grace, *Ibid.*, 65; Malisheva et al., *Ibid.*, 150; Anashkin and Kryukov, *Ibid.*, 19.

⁷⁴² Mike Olsen, “The Future of National Oil Companies in Russia and How They May Improve Their Global Competitiveness,” *Houston Journal of International Law* 35, no. 3 (2013), 619-20.

⁷⁴³ Gray, *Ibid.*, 6.

⁷⁴⁴ Gustafson, *Wheel of Fortune*, 3.

⁷⁴⁵ Kryukov, *The Institutional Structure*, 204.

⁷⁴⁶ Professor Paik discusses two regional gas markets in Russia: West Siberia vs. East Siberia & Far East (See Paik, *Ibid.*, 77).

by the poor performance of the sector in the 1990s, supported by changes in the institutional environment (i.e., centralization and administrative reform among others), and reinforced by the policy actors' manipulation of cultural symbols pulled from embedded institutions (i.e., Soviet Union nostalgia and the theme of Russia's greatness). Both ends of the two supply chains – upstream O&G producers in Russia as well as buyers of Russian O&G abroad – have exhibited signs of securitization since the early 2000s.

Securitization of the supply side involves foreign O&G companies doing business in Russia. Foreign participation was severely curbed compared to the 1990s out of fears that Russian O&G resources were handed out below their actual value and exploited at the expense of Russia's national interest. Hence, foreign interest was seen as a threat to Russian O&G supply chains. First, the use of PSAs as a mechanism for cooperation with foreign companies was abandoned. Next, legislation on strategic O&G fields was introduced limiting access to the largest and most promising O&G fields to Russian companies. Throughout 2000s – 2010s three existing PSAs (Sakhalin I, Sakhalin II, Kharyaga) and one strategic partnership (TNK-BP), which all included foreign participation have been transformed into purely Russian or Russian interest-dominated ventures. Gas projects were first, and oil projects followed. In 2006 – 2009, Gazprom obtained large shares from Shell, Mitsui and Mitsubishi in Sakhalin II, from TNK-BP in the Kovykta gas field and other smaller gas projects, and a stake in Sakhalin I from ExxonMobil and partners.⁷⁴⁷ In 2012, Rosneft acquired TNK-BP, and in exchange for its 50% share in the company BP increased its stake in Rosneft from 12.5% to 19.75%.⁷⁴⁸ Most recently, in January

⁷⁴⁷ Hedlund, *Ibid.*, 70 – 2.

⁷⁴⁸ Rupert Neate, "Rosneft takes over TNK-BP in \$55bn deal," *The Guardian* (March 21, 2013).

2016, TOTAL decreased its share in Kharyaga to 20%, having transferred half of its interest to Zarubezhneft.⁷⁴⁹

Securitization of the demand side of O&G supply chains concerns customers of Russian oil and gas abroad. Shrinking demand for fossil fuels⁷⁵⁰ and diversification of foreign supplies in Europe, the major buyer of Russian oil and gas for decades, is perceived as a threat to Russian supply chains. Europe's access to LNG as an alternative to pipeline gas and incorporation of renewables into the energy mix, and Asia's growing demand for oil and gas are making Russian companies rethink their customer base priorities.⁷⁵¹ However, only the largest and most profitable companies can afford to make bold decisions in conquering new markets. In Russia these companies are Rosneft and Gazprom. Since their success is closely linked with the prestige of the Russian state, they are too important to fail in negotiations with the potential customers. As a result, such negotiations often involve high level officials from the Russian government. Goals often expand beyond pure business and profit into the realm of foreign policy and produce very expensive deals. Examples of Russian companies' engagement in projects that are loss-making include Gazprom's Blue Stream and Nord Stream, Rosneft's ESPO pipeline, and Transneft's crude oil deliveries to China.

6.2.3.3 Summary

The institutional arrangement governing Russia's O&G supply chains are very young and still evolving. Their lack of sophistication is reflected in the dominance of administrative as opposed to civil law principles, short-term as opposed to long-term

⁷⁴⁹ "Russia: Total transfers 20% interest and operatorship of Kharyaga to Zarubezhneft," TOTAL (January 21, 2016).

⁷⁵⁰ European demand for fossil fuels is declining not only due to flattening economic growth and maturity of EU economies, but also due to new environmental policies. Regardless of the origins, declining O&G demand poses a threat to Russia's exports of these resources. See Sharples, *Ibid.*, 686.

⁷⁵¹ More attention is paid to developing resources in East Siberia and Russia's Far East. See Bahgat, *Ibid.*, 165 and Paik, *Ibid.*, 28-9.

policy priorities, and tension as opposed to cooperation between the sector's administrators. These characteristics present challenges for both oil and gas sub-sectors despite apparent differences in all three components of the institutional arrangement between the two sub-sectors since the early 1990s. Additionally, oil and gas sub-sectors have one important commonality – the prominence of the federal government and the leading role of state-owned companies. Thus, individually, each of the three components of the institutional arrangement does not predetermine securitization of O&G supply chains. But, given the context of Russia's institutional environment, together, they create settings conducive to producing a dominant securitizing actor.

Between 1968 and 2015, Russia's O&G sector has gone through three very different periods. The overall performance of the oil and gas supply chains as the referent object of this study has been affected by organizational and institutional factors more than by the physical availability of resources.

Securitization trends in the O&G sector were analyzed with regards to each of the three periods. First, in the late 1970s – 1980s, the gas industry securitized oil supply chains for its own benefit including increased attention from political elites and enlarged investment. In the 1990s, securitization of both oil and gas supply chains was on hold as it was not on the government and private sector agenda. Finally, securitization of oil and especially gas supply chains has been in full swing since the early 2000s. On the supply side, the role of foreign participants was significantly curbed. On the demand side, Russian companies are trying to expand their customer base in order to preserve their world market share.

Common to all three periods, and an important aspect of Russia's O&G sector securitization are attempts by the oil sub-sector to securitize gas supply chains and vice versa. In Russia, oil and gas sub-sectors have historically been opponents trying

to outcompete one another. When they cannot outperform each other, they resort to securitization in order to expose the rival's vulnerability.

In addition to the 'oil vs. gas' dynamic, securitizing actors can also emerge from other sub-sectors of the energy complex, including hydro, nuclear and coal power. They would argue that O&G supply chains are more threatened and therefore unreliable than their respective supply chains. This is a way for the actors representing other fuels to promote their interests. Their ultimate objective is not to protect O&G supply chains, but to make sure that they remain threatened and insecure to eventually be replaced with more reliable sources.

6.3 Key Findings

Detailed examination of upstream O&G supply chains in the securitization framework reveals several insights about the securitization process in general and the Russian context in particular. First, there is a clear distinction between three different groups of actors within Russia's O&G policy arena – central level, regional level and peripheral actors, but interdependence between them is almost non-existent. Hence, the highest-ranking central level policy-makers dominate the policy arena despite its apparent heterogeneity. Similar to China's case study, it challenges the assumption of this study's securitization framework that dominant decision-makers are more likely to originate from a homogenous policy arena than from a heterogeneous one.

Second, this case study provides an example of the policy arena that restrains the emergence of securitizing actors from within the ranks of its actors, but cannot resist securitization from the institutional environment. This observation has two implications. One is that national institutional environments that are relatively young and inexperienced are more vulnerable to the rise of dominant decision-makers. Another one is that when the securitization process originates from the institutional

environment, as opposed to a specific policy arena, it is likely to be more enduring because institutional path dependence would make it hard for the institutional arrangement at the policy arena level to make any changes to the widely accepted course of action.

Third, from the analysis of the institutional ecosystem, it is evident that Russia's institutional environment is struggling to reconcile the differences between the values of embedded institutions and novel characteristics of the institutional arrangements specific to O&G supply chains. The case of Russia's O&G supply chains governance is also demonstrative of how the institutional ecosystem is in many ways responsible for shaping policy actors and sector participants' behavior.

Fourth, performance of O&G supply chains in the case of the Soviet Union and Russia shows that the abundance of resources cannot substitute for the organizational and institutional factors necessary to ensure successful performance of supply chains. Also, in the Russian context, oil and gas sub-sectors see each other as competitors, which often negatively affects the performance of the overall O&G sector.

Finally, the analysis of policy, legal and organizational components of the institutional arrangement demonstrates that securitization is a process and not an event. For instance, securitization of Russia's gas supply chains was already evident in the legal framework in the 1990s, but was not yet exhibited by the sub-sector's performance. Thus, there was a lag time between implemented securitization measures and modified sector performance.

Chapter 7: Discussion & Conclusions

Energy security is a matter of concern for all national governments, and it is a concept that attracts attention of international organizations, policy analysts and academics alike. Despite being an issue of high interest, energy security has a wide range of interpretations, and no agreement exists on how it can be best defined. As a result, this study took a more focused approach to ‘energy’ by exploring two of the key energy supply chains – oil and gas, and examined how governance issues relevant to these two supply chains are framed as ‘security’ issues, or how oil and gas supply chains are securitized.

The analysis of securitization in the theoretical framework made four significant contributions:

- enhancement of the original securitization theory by reinterpreting the concept of securitization as a policy process and addressing five major sources of its criticism through the multidisciplinary approach;
- methodological advancement of the understanding of securitization processes;
- systematization of existing knowledge on the governance of oil and gas supply chains in China, Canada, and Russia; and
- in-depth exploration of securitization processes in these three national contexts.

While case-specific findings were discussed at the end of each case study chapter (Chapter 4 – 6), this chapter examines the findings from the comparative analysis of the three case studies (Section 7.1). It also discusses valuable insights from the theoretical framework as the basis for analyzing the case studies (Section 7.2). It also addresses the future research agenda by specifying research propositions, limitations of the theoretical framework, and avenues for future research (Section 7.3). Finally, the chapter discusses the theoretical and policy implications of this study (Section 7.4).

7.1 Significant Case Study Findings

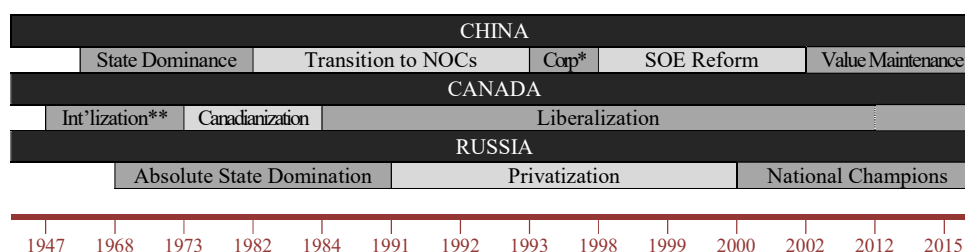
Equal attention to oil and gas supply chains as two referent objects co-existing within the same national context presents a rare opportunity for the analysis of the same set of antecedent conditions resulting in either converging or diverging performance of two dependent variables. Three case studies then create three sets of contexts for the exploration of six supply chains, which is useful for deriving both within- and between-case insights.

Introductory overviews of each country's O&G sectors already suggest differences in the management of oil and gas supply chains. In China, oil and gas resources were united under a single institutional arrangement umbrella until the early 2000s. This is when natural gas started to play an increasingly important role in China's energy mix and national economy. As a result, China is building up legal and policy frameworks for natural gas independent of oil supply chains. In Canada, oil and gas can be seen as two independent sectors as they have been equally prioritized since the 1950s. Although policy actors and sector participants of oil and gas sectors overlap, they follow separate policy and regulatory guidelines. Similar to Canada, oil and gas supply chains in Russia have been independent from one another since the 1950s. But unlike in Canada, Russia's oil and gas sector participants see one another as competitors. The differences in treating oil and gas as a single sector or as two independent sub-sectors are predetermined by physical resource endowment, but they are also perpetuated by the established institutional arrangements over time. Ultimately, understanding these differences is important for the specification of a referent object and its performance in securitization processes.

Relevant to oil and gas sector players are country-specific timelines of sector development (See Table 7.2). China and Russia took a similar path at different times, transitioning from a state dominated (until 1982 in China and until 1991 in Russia) to a NOC-centered (1982 – Present in China and 2000 – Present in Russia) O&G sector.

The two countries also have a sizeable presence of domestic private companies. While foreign and private domestic participation has been on the rise in China since the 2010s, the former has been declining and the latter stagnating in Russia since the 2000s. Although the Canadian government created an NOC (1976 – 1991), Petro-Canada was never the leader of the O&G sector. Instead, foreign (1947 – 1973, 1984 – Present) or domestic (1973 – 1984) private companies have dominated Canada’s O&G sector.

Table 7.1: Stages of O&G Sector Development in China, Canada and Russia (1947 – Present)



Source: Author

Notes: *Corporatization

**Internationalization

As the evolution of O&G sectors in China, Canada, and Russia demonstrates, all three had experience with NOCs. Nevertheless, the rationale behind their establishment, as well as their roles as policy actors and sector players differ significantly between China and Russia on the one hand and Canada on the other. In China and Russia, the NOCs were created through redistribution of ministerial assets, and they inherited some bureaucratic functions in the management of oil and gas supply chains. China and Russia’s NOCs enjoy access to the best quality resources, take advantage of continuous government support and are reluctant to face competition from the private sector. These features make them very different from Petro-Canada. The latter was created to develop the least attractive oil and gas resources, operated in a liberalized market, and benefited from the federal government’s subsidies mainly to offset the higher costs it incurred. Thus, although

united under one umbrella term, NOCs might serve different purposes and behave differently in their respective environments.

The boundaries of each period in O&G sector development correspond⁷⁵² to changes in or perceptions about resource availability, changes in the institutional arrangement (legal, policy, administrative) or significant transformations in the institutional environment. In China, the transition from ministries to NOCs initiated in 1982, the beginning of NOCs' corporatization in 1993, and the start of the SOE reform in 1998 are all directly related to implemented changes in the institutional arrangement and the country's switch to a net oil importer status. In Russia, large-scale privatization of the 1990s was a result of drastic changes in the institutional environment and introduction of national champions in the early 2000s required a new legal and policy bases.

However, boundaries between different periods in Canada's O&G sector are less straightforward because the sector is more organic. The chain of events linked to securitization – the start of Canadianization in 1973, assumption of a net importer of oil in 1975, and the establishment of the NOC in 1976 – unfolded relatively quickly. However, the return to liberalization in 1984 and dismantling of the NOC in 1992 had a slower pace. Thus, the evidence from the three case studies suggests that the gap between a change in the institutional environment or the institutional arrangement's components and the adjustment in the sector's behavior is smaller in less diverse O&G sectors and more securitized supply chains.

Unlike the perception about the availability of supplies, the country's exporter/importer status does not predetermine the likelihood and intensity of securitization. An exporter and an importer can be equally concerned with different ends of supply chains – supply vs. demand, or both at the same time. It is the

⁷⁵² but are not necessarily *caused* by (e.g., Canada's O&G sector entered the period of Canadianization in 1973, and Canada became a net importer of oil in 1975; not the other way around).

combination of factors originating from the institutional ecosystem, the policy arena and supply chains performance that play a part in initiating and sustaining securitization processes. Hence, as a net importer of oil, China chose to securitize its oil supply chains in 1949 - 1972, while Canada did not prior to 1968. Similarly, as net exporters of oil, Canada and Russia did not securitize their oil supply chains in the 1990s, but Russia securitized it prior to the 1990s and after 2000.

Perceptions also matter when it comes to response to crises. Shaped by societal norms and values, influenced by the organizational and personal objectives, interests and beliefs, and a function of the sector's performance, different perceptions result in different reactions to crises. The nature of a crisis itself is less relevant than the characteristics of the policy arena and supply chain performance in defining potential threats. For example, the oil crisis of 1973 had distinct effects on China, Canada, and Russia, all net exporters of oil at the time. China was self-sufficient in crude oil and oil products, and it also benefited from exports of these energy resources to neighbors in the region. Hence, neither China's O&G sector, nor policy arena governing supply chains experienced any major negative impact from the oil crisis. At the same time, in Canada, perceptions of decreased security of supply were taking hold, bureaucratic and party politics worsened the fears of threatened supply chains, and a number of regulations extending the federal government's control were implemented. In these conditions, the oil crisis served as a multiplier of existing concerns and triggered securitization of both oil and gas supply chains. Like China, the Soviet Union was actively engaged in the oil and gas trade with its neighbors. Not a member of the OPEC, the USSR used the oil crisis to its advantage, having replaced the Middle East as the major oil supplier for Europe.

Beyond the sector and policy arena characteristics, certain traits of the institutional environments are worth noting. In theory, federal political systems of Canada and Russia are similar. In both countries, regional units (13 provinces and territories, and

85 subjects) draw their powers from their respective constitutions. In reality, Canadian provinces are much more powerful in the management of oil and gas policy arena and supply chains than Russian subjects. The single biggest difference is the source of legal and fiscal regulations: in Canada, provinces collect the majority of taxes; in Russia, O&G-rich regions collect zero taxes. In China, where provinces are theoretically under tighter central government control than in Russia, provincial governments have more say in the governance of oil and gas supply chains. Active central – regional government interaction results in the diversification of interests, and ensures balance of power between securitizing actors and policy stakeholders. In the institutional environments where regional interests are silenced, the rise of a dominant decision-maker, whose actions are unchecked by the policy arena participants, is more likely. The threat of an uncontrolled securitizing actor is even higher when a dominant decision-maker emerges from the broader institutional environment rather than the policy arena governing O&G supply chains.

All of the above findings are relevant only to the examined case studies, and conclusions are not generalized beyond the three institutional environments. However, these cases were analyzed in the framework designed for the purpose of uncovering securitization processes in the governance of oil and gas supply chains with a number of questions in mind. As such, the analysis is systematic, allows for comparisons, and can help draw generalizable insights about the elements of the theoretical framework – type I, type II, and type III inputs. These insights are analyzed below based on the components of the central research question: two questions related to Type I, four questions on Type II, and two questions relevant to Type III inputs.

7.2 Theoretical Framework Insights: Influential Variables and Generalizable Conclusions

7.2.1 Elements of Research Question

7.2.1.1 Type I Inputs

Q1.1: Do quantifiable and easily observable trends affect the process of securitization more than qualitative and barely visible trends?

Depending on policy-makers' perceptions, both quantitative and qualitative trends can be equally powerful. In China and the Soviet Union/Russia, a lot of policy decisions were driven by the fundamental ideas embedded into the levels of the institutional ecosystem deeper than where trends originate. In China, the concept of "self-reliance" and strategy of "growth at all costs" had much more influence on decision-making and in many ways determined political and economic trends. In Russia, the outside world is perceived as a threat to the Russian state, which presents an opportunity to securitize O&G supply chains that are vital for the state's well-being. Hence, the evidence from Russia and China illustrates the power of qualitative, subjective and barely visible trends over evidence-based (quantitative) decision-making. However, in Canada, government forecasts providing quantitative outlooks for oil and gas trends have had a significant impact on O&G policy-making known for its focus on evidence and economic indicators. In the 1970s, pessimistic forecasts about the state of Canada's O&G reserves were comparable with external triggers of the first and second oil shocks in their combined effect on putting a securitization process in motion.

Q1.2: What are the indicators of securitization originating from the institutional environment as opposed to the institutional arrangement?

As discussed in all three case studies, the institutional environment can either constrain, or enable securitization processes. In Canada, it is dominated by complementary and overlapping institutions, which create heterogeneity and tend to

constrain securitization. However, the experience of Canada's oil and gas supply chains governance demonstrates that even institutions historically opposed to securitization can be vulnerable to the emergence of a strong securitizing actor. In order to achieve its securitization objective, the federal government manipulated the meaning of a deeply embedded cultural concept of self-reliance.

China and Russia have significant experience with securitized oil and gas supply chains and represent two contrasting examples of securitization originating from the institutional arrangement (China) and the institutional environment (Russia). In China, the nature of the institutional environment dominated by the CCP ensures the presence of this core institutional element in the securitization processes of any policy arena and referent object. However, the CCP generally plays a role of an ally to the securitization process, when it considers fit to do so, while securitizing actors emerge from the policy arenas governing a specific referent object. This was the case with the petroleum group of the MPI and later with the NOCs. In Russia, securitizing actors originate from the institutional environment, such as the general secretary in the USSR and the president of modern Russia. In an environment where horizontal linkages between institutions are weak and cooperation is rare, policy stakeholders have no means to oppose such a strong securitizing actor.

7.2.1.2 Type II Inputs

Q2.1: Can the securitization process move forward if policy actors perceive the referent object as threatened, but do not share a common definition of threat?

China and Russia's case studies suggest that policy actors have to agree that the referent object is threatened for the securitization process to be initiated, but they do not need to share the understanding of the threat or have common objectives. Every policy actor can see a different threat and interpret threats differently, but as long as a common perception that the referent object is threatened exists, a securitization

process can be initiated. The case studies also clearly demonstrated that in the securitization process, policy actors' initiatives are not directed at eliminating a threat. Instead, they are always designed to change the performance of the referent object to develop immunity against the threat. Securitization of O&G supply chains in Canada took place over a very short period of time (1973 – 1984), but the evidence from the analyzed securitization period is in line with the insights from the other two case studies.

Q2.2: Do external triggers of securitization incentivize competing policy actors in a heterogeneous policy arena to compromise their conflicting beliefs and share their resources?

The evidence from all three case studies points to the negative answer. In China's oil and gas sector, none of the external triggers, including outside policy entrepreneurs, systemic perturbations and policy spillovers, appeared to have any particularly important role in the securitization process. Entry into the oil and gas policy arena is strictly guarded against outsiders. The role of spillovers from other policy arenas has also been limited mainly because the petroleum sector was historically one of the leading sectors of the entire economy. Systemic perturbations did take place including changes in political leadership in China and foreign events such as the 1973-1974 oil crisis and Iraq war of the early 2000s, but none of these perturbations became a single most important trigger of securitization. Rather, one of the internal triggers – negotiated agreements – has been prevalent in the context of China's oil and gas policy arena. Nevertheless, these insights hold only if China's oil and gas policy arena can be qualified as heterogeneous.

None of the external triggers encountered by Canada's O&G supply chains over the course of over 65 years were able to create favorable conditions for a securitization

process. There have been no instances of outside policy entrepreneurs. Policy spillovers from other economic sectors in the national context did take place, but these spillovers were not able to smooth conflicting beliefs and interests of diverse policy actors. Systemic perturbations are very common and originate from within the institutional environment on a regular basis (i.e., federal elections) as well as from the outside (i.e., there were at least 10 major international oil supply disruptions between 1956 and 2005)⁷⁵³. The combination of the 1973 and 1979 oil crises, and events in Canadian domestic politics during the same period were the most significant external triggers in the studied time period. However, they were not powerful enough to erase differences between the federal and provincial governments for the purposes of a smoother securitization process. On the contrary, these triggers had the opposite effect and led to non-cooperation and intergovernmental conflict.

In Russia's O&G sector, external triggers have not resulted in compromised beliefs and shared resources between competing policy arena actors. The appearance of outside policy entrepreneurs is not possible due to a strictly guarded entrance to the policy arena. Even when policy entrepreneurs succeeded in getting attention of the central leadership, which was the case with pro-nuclear and pro-coal coalitions in the Soviet Union, it did not contribute to resource mobilization in the O&G policy arena. Systemic perturbations were numerous and diverse, ranging from policy arena specific crises (oil crises in the late 1970s as well as throughout the 1980s and 1990s) to more predictable leadership successions (General Secretaries and presidential elections) to unexpected large-scale changes (political environment transition from the socialist command economy to a democratic market-based system). Once again, they failed to unify the diverse policy arena participants. The role of spillovers from other policy arenas has been limited because the O&G sector was one of the leading sectors of the national economy.

⁷⁵³ Gordon Laxer, *Freezing in the dark: why Canada needs strategic petroleum reserves: a report* (Edmonton, Alta.: Parkland Institute, 2008), 33-34.

Q2.3: Do policy stakeholders have any influence on pausing/reversing/advancing a securitization process led by a dominant decision-maker?

According to evidence from all three case studies, policy stakeholders do play an important role in the securitization processes led by dominant decision-makers. The case study of China demonstrates that even dominant decision-makers care about the policy stakeholders' reaction because the latter have significant influence on the ultimate success of the securitization process. Dominant decision-makers cannot completely disregard the opinion of other policy stakeholders because they will risk losing their power. Canada's case study clearly demonstrates that strong actions of the policy stakeholders opposing dominant decision-maker's policies can lead to changes in the securitizing actor's behavior and help reverse the securitization process. The evidence from Russia is the weakest because the reaction of policy stakeholders to the dominant decision-maker's action is the least visible among the three case studies. This is due to the exceptionally strong power of the securitizing actors who originate from the institutional environment (as opposed to the oil and gas policy arena) and tend to minimize access of unfavorable stakeholders to decision-making.

Q2.4: Do securitizing actors always try to build a policy core belief consensus among policy stakeholders and under what conditions?

In China's O&G sector, it is the actions of securitizing actors (the petroleum group and NOCs), which worked towards securitizing the referent object at different times. As policy entrepreneurs and policy brokers, the two securitizing actors worked towards building up support for policies conducive to promoting securitization. As

dominant decision-makers, until 2010s NOCs possessed more power and influence over other policy actors than before and were less concerned with building a policy core belief consensus. However, changes in the legal and policy frameworks introduced since 2010s have curbed the power of NOCs.

Dominant decision-makers in charge of O&G supply chains in the Soviet Union did not see the need to build a policy core belief consensus because they perceived their own resources as sufficient for moving forward with the securitization process. Policy entrepreneurs, whose resources were limited in comparison with the dominant decision-makers, were attempting to build a policy core belief consensus. Similarly, since 2000, the dominant decision-makers, who initially had less power than their predecessors (until 1991), had to ensure that deep core beliefs are shared and only then build a policy core belief consensus.

In Canada, as a securitizing actor, the federal government did not concern itself with building a policy core belief consensus; a decision that backfired once the nationwide energy strategy was implemented without provincial approval.

7.2.1.3 Type III Inputs

Q3.1: Does securitization involve changes in all three components of the institutional arrangement (legal and policy frameworks, and administrative arrangements) relevant to the referent object?

The evidence from the case studies suggests that changes in all three components of institutions do take place, but in different sequence and at different pace. In China, securitization by the petroleum group took off after changes in the administrative arrangement and increased autonomy of the MPI. During the securitization process of the 1960s – 1970s, policy framework changes preceded changes in the legal framework. In the case of NOCs as securitizing actors, it was also administrative

arrangement modifications that allowed for the ascent of NOCs in the policy arena. But this time, policy and legal frameworks underwent reforms simultaneously.

Securitization of O&G supply chains in Canada involved changes in legal and policy frameworks, but was missing significant changes in administrative arrangements. Even though an NOC was established in the form of a Crown corporation, it did not affect the overall administrative arrangements in existing institutions. It is likely that securitization would have taken place even without the creation of Petro-Canada.

In the case of Russia, there are differences in the roles the three components of the institutional arrangement have played in the securitization of oil and gas supply chains. In the oil sub-sector, securitization trends appeared prior to the first changes in the policy framework and in the absence of changes in the legal framework and administrative arrangement in the late 1980s. In the 1990s, there were clear changes only in the administrative arrangement, which led to a much less pronounced securitization process. In the gas sub-sector, changes in the policy and legal frameworks coincided with initial securitization in the absence of changes in the administrative arrangements. In the 2000s, when the securitization process unfolded with full force in both oil and gas sub-sectors, changes in all three components of the institutional arrangement took place.

Q3.2: Do independent, complementary and overlapping institutions have a different impact on the securitization of a referent object?

In China, securitization of oil and gas supply chains took place in the framework of independent institutions. Canada's O&G supply chains were governed by overlapping institutions when a securitizing actor emerged in 1973. Russia's securitized O&G supply chains have been governed mainly by overlapping institutions. Therefore, examined case studies do not provide a straightforward answer to this question.

7.2.2 Key Variables in Securitization Framework

A number of influential variables and generalizable insights can be derived from the above discussion addressing the elements of the central research question.

First, the evidence from three case studies demonstrates that embedded institutions can be manipulated by securitizing actors through reinterpretation of core ideas, such as ‘self-reliance’ and ‘growth at all costs’ in China, and the deeply-rooted perception of the outside world as a threat in Russia.

Second, the role of horizontal institutional linkages is peculiar. At the level of the institutional environment, unlike independent institutions, complementary and overlapping institutions appear to constrain securitization. As a result of these institutional dynamics, independent institutions in Russia are not able to resist the rise of a dominant decision-maker from within the institutional environment. However, at the level of the institutional arrangement, independent and overlapping institutions both favor securitization. The role of complementary institutions at this level is unclear because they were not present in any of the three case studies. At the time of securitization, oil and gas supply chains in Canada and Russia were governed by overlapping institutions, in China – by independent institutions.

Third, the evidence from three case studies demonstrates that the aim of securitization is not the elimination of threat; instead, it is directed at changing the referent object’s performance. Policy actors might not agree on the definition of a threat, but they share a perception of a threatened referent object.

Fourth, the role of external triggers of securitization is much more limited than that of internal triggers in influencing policy actors’ decisions to build consensus, compromise their beliefs, and share resources for the purposes of advancing securitization. In the three case study contexts, none of the external triggers – outside

policy entrepreneurs, systemic perturbations and policy spillovers – had an exceptionally strong effect on or could be seen as the single most important factor in changing policy actors’ attributes to aid the securitization process.

Fifth, based on the evidence from the case studies, securitization can originate in each one, a combination of or all three components of the institutional arrangement – legal framework, policy framework, and administrative arrangements. As discussed in the previous sub-section, securitization of oil and gas supply chains in Russia and China involved changes in single and a combination of two or three components of the institutional arrangement at different times. In Canada, a short period of securitization of oil supply chains was a result of changes in legal and policy frameworks, but not in administrative arrangements. This illustrates that multiple paths to securitization exist, and they can be equally effective depending on the circumstances.

Sixth, there is a lag time between securitization measures implemented within the institutional arrangement and changes in the referent object’s performance. Hence, the narrow focus on the referent object at a certain point in time may result in incorrect conclusions about its securitization status. Securitization may be underway, but is not yet exhibited in the referent object’s performance. The referent object can be wrongly judged as de-/non-securitized.

Therefore, the theoretical framework helped explore the role of such influential variables as the link between embedded institutions and securitizing actor, horizontal institutional linkages, external and internal triggers of securitization, components of the institutional arrangement and their impact on the performance of the referent object. Insights about these variables are generalizable within the theoretical framework, depict types and patterns of behavior, and are the foundation for future research.

7.3 Future Research Agenda

7.3.1 Research Propositions

Based on the findings discussed above, a number of research propositions can be constructed for use in future analysis of securitization in the governance of oil and gas supply chains in contexts beyond China, Canada, and Russia (Table 7.2).

Table 7.2: Research Propositions for Further Analysis

Research Question	→	Research Proposition
Type I Inputs [institutional ecosystem]		
1.1: Do quantifiable and easily observable trends affect the process of securitization more than qualitative and barely visible trends?		Qualitative, more subjective in nature, and barely visible trends are able to create a more powerful impact on the process of securitization than quantifiable and easily observable trends and events.
1.2: What are the indicators of securitization originating from the institutional environment as opposed to the institutional arrangement?		A securitizing actor originating from the institutional environment is much harder to resist than the one originating from a specific institutional arrangement.
Type II Inputs [policy arena]		
2.1: Can the securitization process move forward if policy actors perceive the referent object as threatened, but do not share a common definition of threat?		In the securitization process, policy actors do not need to share a common definition of a threat or have common objectives as long as there is a shared perception that a threat exists and measures need to be taken to protect a common referent object.
2.2: Do external triggers of securitization incentivize competing policy actors in a heterogeneous policy arena to compromise their conflicting beliefs and share their resources?		In a heterogeneous policy arena, external triggers do not create favorable conditions for a smoother securitization process.
2.3: Do policy stakeholders have any influence on pausing/reversing/advancing a securitization process led by a dominant decision-maker?		Policy stakeholders can play a role in pausing/reversing/advancing a securitization process led by the dominant decision-maker.
2.4: Do securitizing actors always try to build a policy core belief consensus among policy stakeholders and under what conditions?		Securitizing actors turn to building a policy core belief consensus among the policy stakeholders only when they perceive their own resources as insufficient for going through with the securitization process.
Type III Inputs [institutional arrangement + referent object's performance]		
3.1: Does securitization involve changes in all three components of the institutional arrangement (legal and policy frameworks, and administrative arrangements) relevant to the referent object?		Securitization involves changes in all three components of the institutions relevant to the referent object.
3.2: Do independent, complementary and overlapping institutions have a different impact on the securitization of a referent object?		If the referent object is governed by complementary institutions, securitization is less likely to progress than in the case of independent/overlapping institutions.

Since the securitization framework is qualitative, and the current study is exploratory in nature and relies on the empirics from a very small population of cases, it would be misleading to argue that the above research propositions can be *tested*. Rather, the three cases provided evidence against or in support of the various assumptions and relationships derived from the theoretical framework through the exploration of its core components – type I, type II, and type III inputs. Suggested research propositions specify the questions explored in this study and can be useful for systematizing data from other contexts and improving the explanatory power of the framework. These propositions can then be further refined and used in quantitative research designs, which would also be beneficial for the development and application of the securitization framework.

7.3.2 Limitations of the Theoretical Framework

While the application of this new securitization framework provided numerous insights into the national contexts of three case studies and questions discussed above, it also revealed a number of weaknesses of the securitization framework, namely, the absence of discussion on desecuritization, the exclusion of the downstream segment of oil and gas supply chains, the erroneous assumption about the relationship between the dominant decision-maker as one type of securitizing actor and policy stakeholders, and the lack of attention to construction of actors' perceptions.

First, desecuritization is a much more ambiguous theoretical concept than securitization. Relatively rare desecuritization processes and enduring nature of securitization processes are two sides of the same coin and can in part be explained by examining the reasons behind persistent securitization processes. Once in place, a

self-reinforcing securitization process is difficult to stop or reverse due to the nature of path dependent⁷⁵⁴ institutions. At the same time, path dependency can be affected by technological innovation, presence/absence of conjunctures when change is perceived as beneficial, and social learning processes.⁷⁵⁵ Desecuritization requires a precise definition prior to being used as part of the framework. Nevertheless, its incorporation could be beneficial for explaining why and how securitization processes can be stopped and reversed.

Second, the downstream segment of oil and gas supply chains is not part of the referent object of this study for reasons discussed in Chapter 2 (See Section 2.8.3.3). However, refining and distribution are indispensable components of supply chains, and their exploration would add insights into the supply chains' performance, as well as relations between upstream – midstream – downstream players. Also, as the segment most affected by physical threats, it would create a more complete understanding of securitization processes. Finally, activities and products of this part of oil and gas supply chains often require an active involvement from regional and municipal policy actors, providing a more detailed look into the respective policy arena.

Third, all three case studies reject the assumption that “dominant decision-makers are more likely to originate from a homogenous policy arena.”⁷⁵⁶ In China's oil and gas sector, a securitizing actor in the form of a dominant decision-maker emerged in the period when the policy arena was the most heterogeneous to date – the NOCs in the 2000s. In Canada, a dominant decision-maker emerged from a heterogeneous policy arena as well. Finally, the policy arena governing Russia's O&G supply chains has always been more or less heterogeneous. Yet, a dominant decision-maker has controlled it most of the time, with the exception of the 1990s. Although three case

⁷⁵⁴ Mahoney, “Path Dependence in Historical Sociology.”

⁷⁵⁵ David Wilsford, "Path Dependency, or Why History Makes It Difficult but Not Impossible to Reform Health Care Systems in a Big Way," *Journal of Public Policy* 14, no. 03 (1994): 251-283.

⁷⁵⁶ See Chapter 3, Section 3.2.2.4.

studies out of a potentially larger population of cases do not provide conclusive evidence in favor of rejecting this assumption, the findings highlight the importance of providing a clear definition of a heterogeneous policy arena. As discussed in Chapter 3 (Section 3.2.2.4), heterogeneity should not be equated with the large number of actors. Rather, it signifies the diversity of objectives, interests, and resources among the policy arena's participants.

Fourth, this study stresses the importance of perceptions in the process of securitization: in the identification of threats, in the response to crises, and in defining an insecure referent object among others. Nevertheless, the framework does not explicitly define the factors shaping perceptions. The addition of such discussion would undoubtedly enhance the framework because it would also involve further analysis of some of the most elusive components of the policy arena and institutional ecosystem attributes such as actors' beliefs and the role of ideas.

Further application of the framework is expected to discover other limitations, while similar reflections and modifications will gradually improve its explanatory power, conceptual strength and the validity of its theoretical assumptions.

7.3.3 Avenues for Future Research

In order to take advantage of the contributions of this study, address its limitations and further improve the study of securitization, three avenues for future research are suggested: theoretical, methodological, and empirical.

Theoretically, using the constructed theoretical framework, this study provides the groundwork for understanding securitization processes. Research propositions identified in Section 7.3.1 can be used to further refine the theoretical framework through the creation of typological theories. As more nuanced theories, they are useful for "modeling complex contingent generalizations... identify[ing] recurring

conjunctions of mechanisms and provid[ing] hypotheses.”⁷⁵⁷ The number of independent variables for hypothesis testing can be reduced based on the identified influential variables resulting from this study, and typologies of securitizing actors, institutional horizontal linkages and triggers of securitization can all be put to a test.

Methodologically, future studies of securitization based on the theoretical framework of this study would benefit from mixed-method research design, using methods like the qualitative comparative analysis (QCA) and analytic narratives. These methods take advantage of statistical and formal models on the one hand and process-tracing on the other, resulting in robust triangulation – a system of interdependent checks and balances in the research process.

Empirically, the study of securitization would benefit from the analysis of other cases of oil and gas supply chains’ (non-)securitization for the purposes of cross-validation of the theoretical framework. In addition to the question of how securitization occurs, questions of to what extent securitization affects affordability of energy supplies and whether or not securitization leads to security of the referent object should be considered. Other referent objects within the energy complex and beyond can be studied within the framework as well. Examples include civil nuclear energy within national energy systems, the role of environmental policy and, more specifically, the impact of climate change on securitization processes among many others.

7.4 Theoretical and Policy Implications

This study offers a fresh perspective on energy security by changing the focus of analysis from *security* to *securitization* and simultaneously narrowing it down from ‘energy’ to ‘oil and gas supply chains.’ Using a multidisciplinary approach – theoretical insights and analytical tools from four social science disciplines – this

⁷⁵⁷ George and Bennett, *Ibid.*, 7-8.

study advances systematic understanding of securitization processes in the governance of upstream and midstream segments of oil and gas supply chains. The methodological and empirical value of the securitization framework is illustrated through its application to three case studies – China, Canada, and Russia, identification of influential variables and a number of generalizable conclusions useful for future research.

With regards to the theoretical implications, the framework helped uncover the mechanisms behind such ambiguous concepts as ‘(in)secure supply chains’ and ‘(in)security of supply’ in the context of the oil and gas sector. It established associational links and causal relations between numerous actors, processes, events, and trends involved in a generally complex and lengthy process of securitization. In order to paint a comprehensive picture of the dynamics in a single sector in over 40 – 65 years, the framework took in consideration a multitude of interdependent variables: cultural, societal, political, and economic factors originating from the institutional ecosystem; legal, policy, and organizational components of the institutions managing the O&G sector; beliefs, interests, and objective of the policy actors in charge of the sector; and finally, the performance indicators and organizational evolution of the sector’s players.

Three case narratives presented in this study are not simply descriptive, but also analytical and can easily be subjected to comparative analysis between themselves and other case studies on the governance of O&G supply chains guided by the same framework. The major value of the theoretical framework is in its ability to provide nuanced understanding of securitization. At first sight, state – company relations constitute the core of securitization processes: while state involvement is associated with securitization, liberalized supply chains free of state intervention with desecuritization. However, as the evidence from analyzed case studies demonstrates, this assumption is misleading. For example, in the context of Russia, the period of

broad liberalization in the 1990s was associated with deescalated securitization of oil supply chains, but at the same time securitization of gas supply chains progressed. In Canada, during the federal government's increased intervention into the oil and gas sector in the mid-1970s – 1980s, securitization of oil supply chains took place in the absence of securitization of gas supply chains. Thus, the mechanism of securitization cannot be explained simply by the regulation – liberalization dichotomy. Exclusive focus on state – company relations can result in omission of securitization trends, excessive emphasis on the interventionist nature of a state in less liberalized sectors, and limited insights into the changing nature of securitizing actors within the broad definition of a “state.”

Finally, as discussed in the previous section on the avenues for future research, the securitization framework can be applied to other referent objects beyond the subject of this study, such as other areas of non-traditional security including food, health, migration, and environment.

As for the policy implications, clear understanding of securitization processes is a valuable asset at the decision-makers' disposal. It can inform decision-makers about the challenges of insecurity and securitization and their effect on the performance of a referent object like O&G supply chains. Taking into consideration the nature of resources and their importance to the national energy complexes, oil and gas are widely traded commodities which make interaction between private and public sector companies as well as between companies and governments unavoidable. In addition to international trade, companies and governments actively engage in the exploration and production of oil and gas resources in the multitude of host countries, and understanding unfamiliar context-specific securitization processes would be beneficial for their engagement in foreign countries. Understanding securitization is useful for untangling seemingly irrational behavior of their counterparts and analyzing their motivations. Additionally, familiarity with the details of securitization

helps make sense of other states' reactions to international events, their national energy policies and energy security priorities. Ultimately, appreciation of highly contextual mechanisms of securitization is important because it addresses the biggest challenge of energy insecurity – ensuring efficient regional and global energy governance. The analysis of securitization trends uncovers sources of extreme diversity in private and public sector voices in the energy sphere, and can be a useful tool in identifying elements of a roadmap towards building a common ground and eliminating disagreements.

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Appendices

Appendix 1: The CCP's Network of Control Mechanisms

Organization Department	<ul style="list-style-type: none"> ▪ the institutional heart of a Leninist party system¹ ▪ employs the robust <i>nomenklatura</i> system²
CCP Propaganda Department (CCPPD)	<ul style="list-style-type: none"> ▪ the Party's propaganda apparatus³ ▪ responsible for the control of information flowing into and throughout China
Central Political and Legal Affairs Commission (CPLC)	<ul style="list-style-type: none"> ▪ ensures Party's domination in all legal affairs.⁴ ▪ directly responsible to the Political Bureau Standing Committee⁵
Central Commission for Discipline Inspection (CCDI)	<ul style="list-style-type: none"> ▪ responsible for enforcing discipline and fighting corruption within the party ranks ▪ performs sporadic judiciary functions ▪ its power, mandate and autonomy relative to the Party changed in 1980s – 2014⁶
Chinese People's Political Consultative Conference (CPPCC)	<ul style="list-style-type: none"> ▪ promotes extraparty consultation and interparty cooperation under the leadership of the CCP⁷ ▪ "a broadly representative organization of the united front... that is composed of democratic parties and people's organizations."⁸
central leading small groups (CLSGs)	<ul style="list-style-type: none"> ▪ help the Party control the central government⁹
<i>dangzu</i> (Party groups)	<ul style="list-style-type: none"> ▪ are located inside the government bureaucracies¹⁰
<i>xitong</i> (systems)	<ul style="list-style-type: none"> ▪ penetrate the whole system from the center to provincial and local levels¹¹ ▪ encompass the judicial system and the military¹²

Sources: Shambaugh, *China's Communist Party*, 106-108, 132-133, 137-138, 141; Zheng, *The Chinese Communist party as organizational emperor*, 65-66, 100, 112-113.

Notes: ¹ Shambaugh, *China's Communist Party*, 141.

² Shambaugh, *The Modern Chinese State*, 173-175. Even though this management system was modified in 1984 with the Central Committee being responsible for appointments one level down instead of two levels down, this change was implemented not to decentralize or relax the power of the CCP, but on the contrary, "to strengthen its power and management efficiency" (Zheng, *The Chinese Communist Party as organizational emperor*, 103-107).

³ Although its power "eroded" and some of its tools "atrophied" over time, the CCPPD remains a strong instrument of control in the hands of the Party (Shambaugh, *China's Communist Party*, 3, 106-110). First, it retains its "capacity to censor when and where it sees fit" (a crackdown on the media under Hu Jintao). Second, major foreign telecommunication companies, who wish to take advantage of China's large customer base, choose to comply with government censorship regulations in order to gain access to the Chinese market (Shambaugh, *China's Communist Party*, 107, 110).

⁴ Shambaugh, *China's Communist Party*, 113.

⁵ Despite the provision in the Article 5 of the Constitution of the PRC which states that "no organization or individual may enjoy the privilege of being above the Constitution and the law," the Party crafts and adjusts the legal framework to fit its needs.

⁶ Until the early 1980s, local offices of CCDI were elected by the local party committees making the former dependent on the latter and, thus, limiting the actual investigative power of CCDI (Sullivan, "The Role of the Control Organs in the Chinese Communist Party, 1977-83," 601). Reforms of the 1980s and 1990s strengthened CCDI at the central and local levels through the dual leadership system (Manion, *Corruption by Design*, 123), implementation of "five forbiddens" (Guo, "The Growth

of Intra-party Democracy and Its Implications for China's Democratic Future," 602), and expanded investigative powers (vetting officials before their appointment to a post (Manion, *Corruption by Design*, 123) and *shuanggui* (double designation) system (Guo, "The Growth of Intra-party Democracy and Its Implications for China's Democratic Future," 605).) Under Hu Jintao, CCDI's power was further strengthened through the establishment of central inspection teams, and consolidation of numerous local CCDI offices on the prefecture/county level. Xi Jinping's administration continues to advance institutionalization of the CCDI's autonomy from the CCP's operations. In 2013, Propaganda Department and Organization Department were established within the CCDI making its personnel control functions independent from those of the Party Committee. (Rose-Ackerman and Lagunes, *Greed, Corruption, and the Modern State*, 141; Wo-Lap Lam Lam, "Growing CCDI Power Brings Questions of Politically-Motivated Purge"). In 2014, CCDI created an internal office – Office for the Supervision of Disciplinary System Officials - for monitoring its own officials at all levels. In addition to this internal office, CCDI also set up inspection teams in the Central Committee's offices (i.e., Organization Department, Propaganda Department, etc.) as well as government bodies (ministries, commissions, SOEs) under State Council's control. In order to ensure their impartiality and independence, these teams are responsible only to the CCDI and not the organizations within which they are set up (Zhang, "CCDI sends graft-busters to 26 State organizations").

⁷ Following the proclamation of the Central Committee's initiative on "...building the system of multi-party cooperation and consultation" in 2005, cooperation between the CCP and eight recognized political parties visibly improved. Prior to 2007, for instance, non-Communist party leaders – current chair people of their respective parties were appointed at the vice-ministerial positions at the highest. Wang Xiang of the Revolutionary Committee of the Kuomintang served as a Vice-Person of the Supreme People's Court (1998 – 2013). Zhang Baowen of China Democratic League was appointed a Vice-Minister of Agriculture (2000 – 2008). Chen Changzhi of China Democratic National Construction Association held a Vice-Minister position in the Ministry of Supervision (1998 – 2008). Yan Junqi of China Association for Promoting Democracy used to be a Vice-Mayor of Shanghai (2001 – 2007). After 2007, two current chairpeople served in the national government at the Ministerial rank. Chan Zhu of Chinese Peasants' and Workers' Democratic Party served as the Minister of Health (2007 – 2013). Wang Gang is leading the Ministry of Science and Technology (2007 – Present).

⁸ Constitution, Preamble.

⁹ Zheng, *The Chinese Communist Party as organizational emperor*, 109, 111. For instance, Energy Leading Small Group was created in the context of energy sector re-centralization in the early 2000s.

¹⁰ Zheng, *The Chinese Communist Party as organizational emperor*, 111.

¹¹ Andrews-Speed, *The governance of energy in China*, 126.

¹² Zheng, *The Chinese Communist Party as organizational emperor*, 112-113. Judicial *xitong* is coordinated through two mechanisms described above – the CPLC and CCDI. As for the military system, civilian-military relations were based on relative personal power of Party and military officials. But in 1997, the National Defence Law legalized and thus institutionalized the Party's control over the military (Zheng, *The Chinese Communist Party as organizational emperor*, 116).

Appendix 2: Peripheral Actors in China’s O&G Policy Arena: Research, Academic, and Media Establishments

<i>Research Institute</i>	<i>Parent Organization</i>	<i>Areas of Expertise</i>
Bodies directly involved in policy-making		
Development Research Center (DRC)	State Council	<ul style="list-style-type: none"> ▪ advice on demand to the parent agency;¹ ▪ policy research and consulting services;² ▪ reports on China’s energy policy priorities.³
Bureau of Seismology ⁴	State Council	<ul style="list-style-type: none"> ▪ “involved in technical exchange and equipment purchase”⁵
Bureau of Geology		
Bureau of Oceanography		
Chinese Academy of Sciences	State Council	<ul style="list-style-type: none"> ▪ initiate or respond to direct technical exchanges involving energy delegations to and from China⁶
Chinese Academy of Social Sciences	State Council	
Chinese Academy of Engineering	State Council	
Energy Research Institute (ERI)	NDRC	<ul style="list-style-type: none"> ▪ “submits reports and policy recommendations; ▪ focuses on macroeconomic analysis rather than on project assessment; ▪ has tremendous influence on “demand side” issues such as efficiency but virtually no impact on “supply side” policies such as exploration.”⁷
China International Engineering Consulting Corporation	NDRC	<ul style="list-style-type: none"> ▪ examines submitted feasibility studies for construction of new refineries
Oil and Gas Strategic Research Center (OGSRC)	MLR	<ul style="list-style-type: none"> ▪ conducts studies on petroleum security; ▪ organizes inter-agency research committees⁸
Office of Economic Diplomacy and Cooperation	MFA	<ul style="list-style-type: none"> ▪ studies on international relations ▪ research on China’s bilateral relations
Policy Research Department		
China Institute of International Studies (CIIS)		
China Institutes of Contemporary International Relations (CICIR)	MSS	<ul style="list-style-type: none"> ▪ research on energy security; ▪ advice on enhancing security⁹
NOCs’ Research Institutes		
Research Institute of Petroleum Exploration and Development (RIPED)	CNPC	<ul style="list-style-type: none"> ▪ research in upstream petroleum business; ▪ strategic development planning; ▪ technical support for CNPC/PetroChina.¹⁰
Research Institute of Economics and Technology (ETRI)		<ul style="list-style-type: none"> ▪ tendency analysis; ▪ strategic research.¹¹

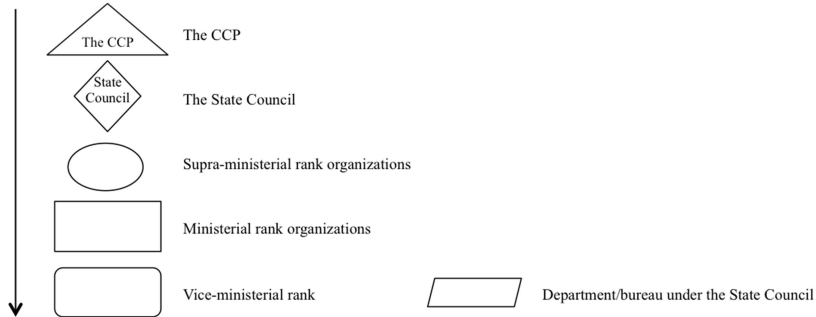
Petrochemical Planning and Engineering Institute	Sinopec	<ul style="list-style-type: none"> ▪ examine submitted feasibility studies for construction of new refineries; ▪ head interdisciplinary, multi-agency teams of experts for assessment purposes;¹² ▪ a total of 8 research institutes.¹³
Exploration and Production Research Institute		
Research Institute of Petroleum Processing		
Research Institute of Petroleum Engineering		
Geophysical Research Institute		
CNOOC Research Institute	CNOOC	<ul style="list-style-type: none"> ▪ convention deep-water technique support; ▪ service for O&G EP.
Academic Community¹⁴		
Shanghai Institutes for International Studies (SIIS)		<ul style="list-style-type: none"> ▪ studies on international politics and China's security strategy¹⁵
Renmin University	MOE	<ul style="list-style-type: none"> ▪ Center for International Energy and Environment Strategy Studies ▪ Top social sciences and policy research
Xiamen University		<ul style="list-style-type: none"> ▪ Center of China Energy Economics Research (CCEER)
Peking University		<p>National School of Development (NSD)</p> <ul style="list-style-type: none"> ▪ one of the top think tanks in the country ▪ gathers academic intelligence ▪ comprehensive interdisciplinary research
Tsinghua University		<ul style="list-style-type: none"> ▪ Division of Energy and Environment ▪ Vice-ministerial university
Nankai University		<ul style="list-style-type: none"> ▪ comprehensive academic programs ▪ focus on science and engineering
China University of Petroleum		<ul style="list-style-type: none"> ▪ chemical engineering and technology ▪ mineral resources prospecting and exploration ▪ oil and gas well engineering ▪ oil and gas storage and transportation engineering ▪ oil and gas field development engineering
International Organizations		
OPEC	n/a	<ul style="list-style-type: none"> ▪ - in 1960s – 1970s, “number one in China's hierarchy of [international] organizations.”¹⁶
World Bank	n/a	<ul style="list-style-type: none"> ▪ in the past, a loan provider to Chinese government; ▪ today, close cooperation with CEIB, MOF in development issues around the world.¹⁷
IEA	OECD	<ul style="list-style-type: none"> ▪ 1996 Memorandum of Policy Understanding in the Field of Energy between IEA and Chinese

		<p>government</p> <ul style="list-style-type: none"> ▪ Studies on various aspects of energy policy ▪ Technology collaboration programs ▪ 2015 IEA Ministerial meeting: China activated Association status¹⁸
Media¹⁹		
Xinhua News Agency	State Council	<ul style="list-style-type: none"> ▪ a ministry-level institution ▪ official press agency of the PRC ▪ biggest and most influential media organization
China Central Television (CCTV)	State Administration of Press, Publication, Radio, Film and Television (SAPPRFT)	<ul style="list-style-type: none"> ▪ state television broadcaster ▪ a network of 45 channels
People's Daily	Central Committee of the CCP	<ul style="list-style-type: none"> ▪ official newspaper of the CCP ▪ direct information on policies and viewpoints of the government
Other newspapers, magazines, TV channels, online publications, etc.	independent	<ul style="list-style-type: none"> ▪ reporting on various policy issues

- Notes: ¹ Downs, "The Chinese Energy Security Debate," 27; Constantin, *Ibid.*, 17-18
- ² Development Research Center of the State Council of the People's Republic of China, *Who Does What*, The State Council of the People's Republic of China.
- ³ Meidan et al., *Ibid.*, 596.
- ⁴ In 1998, these bureaux were merged under the new Ministry of Land and Resources (MLR).
- ⁵ Woodard, *Ibid.*, 79-81.
- ⁶ *Ibid.*; Constantin, *Ibid.*, 17-8.
- ⁷ Downs, "The Chinese Energy Security Debate," 27.
- ⁸ Kong, *China's international petroleum policy*, 51.
- ⁹ Downs, "The Chinese Energy Security Debate," 27-8.
- ¹⁰ RPIED. "Overview." The Research Institute of Petroleum Exploration and Development.
- ¹¹ Bloomberg. "Company Overview of CNPC Research Institute of Economics and Technology." Bloomberg.com.
- ¹² Wang, *Ibid.*, 128
- ¹³ Sinopec Corp. *Research Institutions*.
- ¹⁴ Universities are closely related to the government with many of them being responsible directly to the Ministry of Education. Also, the most prominent universities, for example, Peking University, have appointed party secretaries who ensure that university activities are in line with the Party's interests.
- ¹⁵ Lin Liyao, "Top 10 think tanks in China," China.org.cn (September 26, 2011); Constantin, *Ibid.*, 17-8.
- ¹⁶ Woodard, *Ibid.*, Chapter 9.
- ¹⁷ "China Eximbank and World Bank Come Together to Sign Cooperation Memo," World Bank (May 21, 2007); "China Launches First World Bank Trust Fund to End Poverty and Promote Development," World Bank (July 16, 2015).
- ¹⁸ "Joint Ministerial Declaration on the occasion of the 2015 IEA Ministerial meeting expressing the Activation of Association," International Energy Agency (November 18, 2015).
- ¹⁹ The government acknowledges the role of society that is increasingly active in the policy issues, and "conducts extensive public opinion polling on the performance of local (but not central) leaders and governments." (Lewis, *Ibid.*, 19-20) New forms of media (online blogs, mobile applications) make the Chinese state adapt to a changing media landscape.

Appendix 3: Major Policy Actors in the Management of Oil and Gas Supply Chains

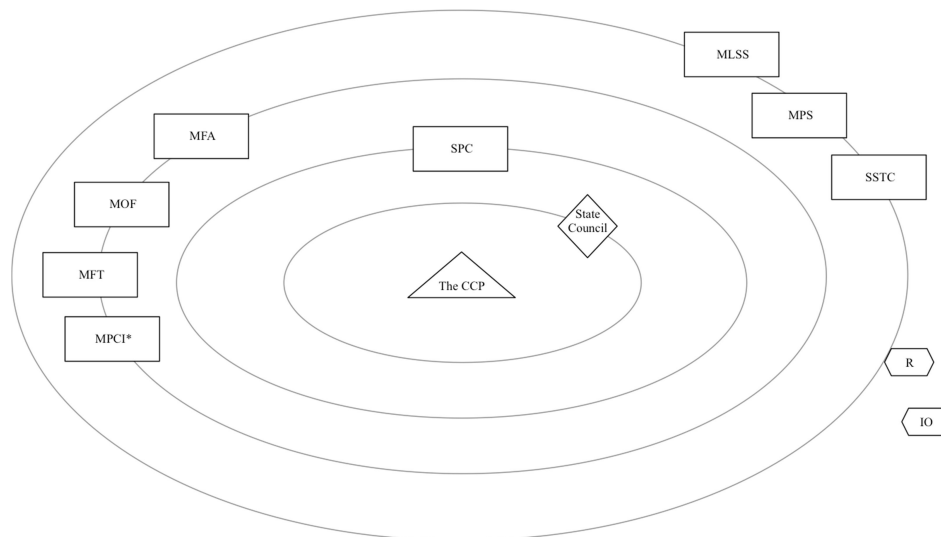
Hierarchical Structure of Organizations:



Other organizations outside the hierarchical government structure representing minor policy players:

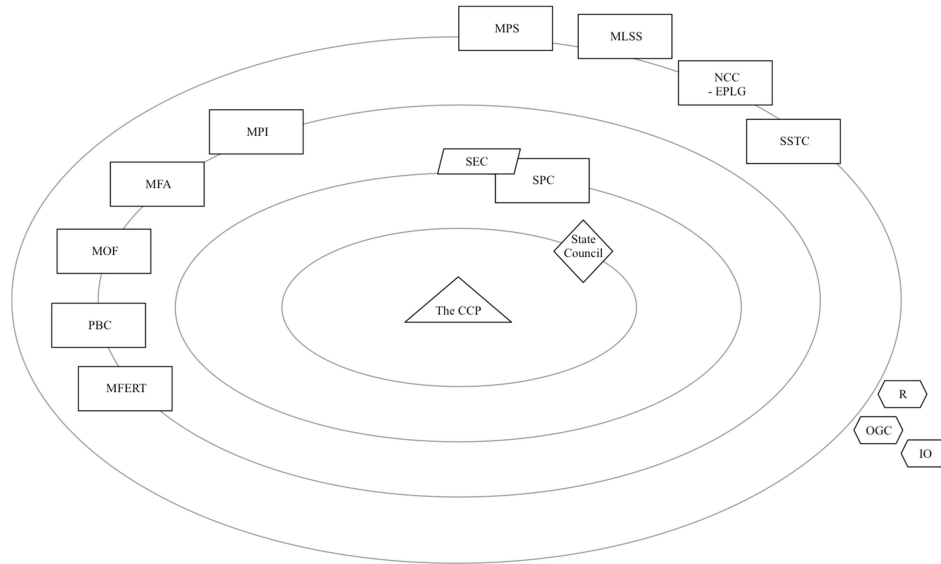
- Oil and gas companies (besides three major NOCs) including other SOEs and private domestic and foreign companies
- Research institutes/think tanks
- Media
- International organizations

Policy Arena (1954 – 1978)

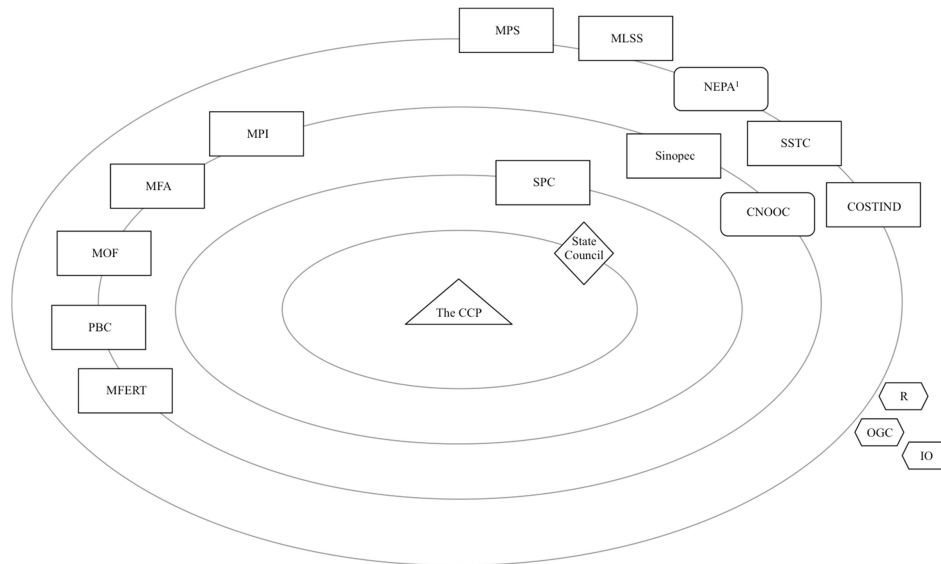


Notes: * - MFI (1949 – 1955), MPI (1955 – 1970), MFCI (1970 – 1975), MPCl (1975 – 1978)

Policy Arena (1978 – 1982)

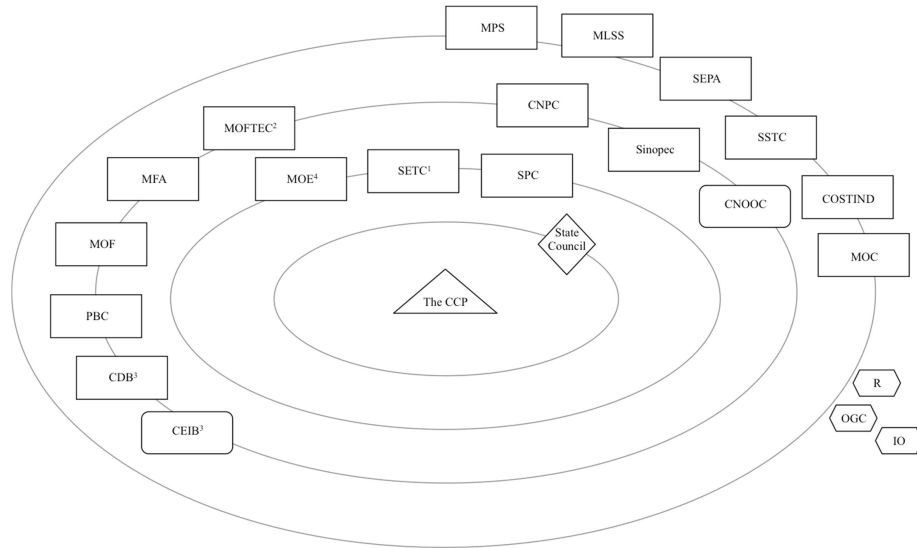


Policy Arena (1982 – 1988)



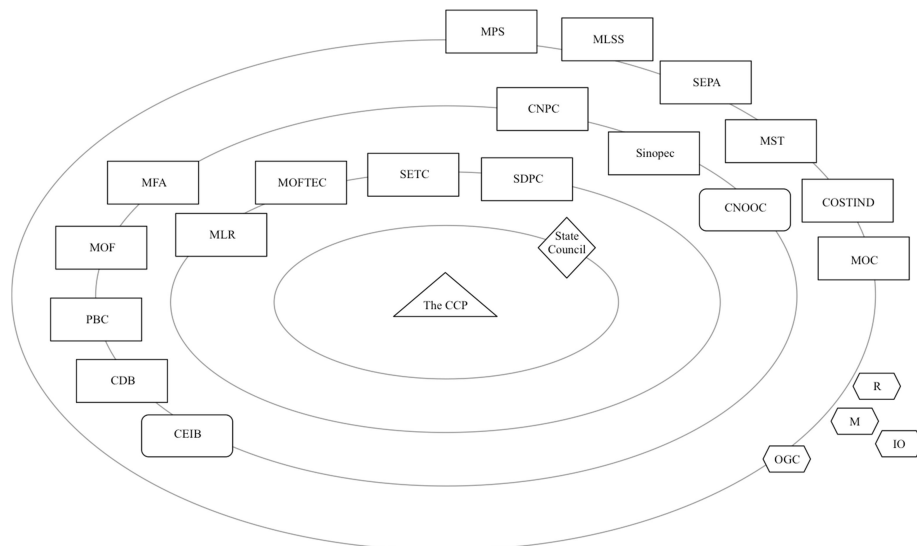
Notes: 1 – EPB (1982 – 1984) under Ministry of Urban and Rural Construction; NEPA (1984 – 1987) under Ministry of Construction; NEPA – an independent vice-ministerial body since 1987

Policy Arena (1988 – 1998)

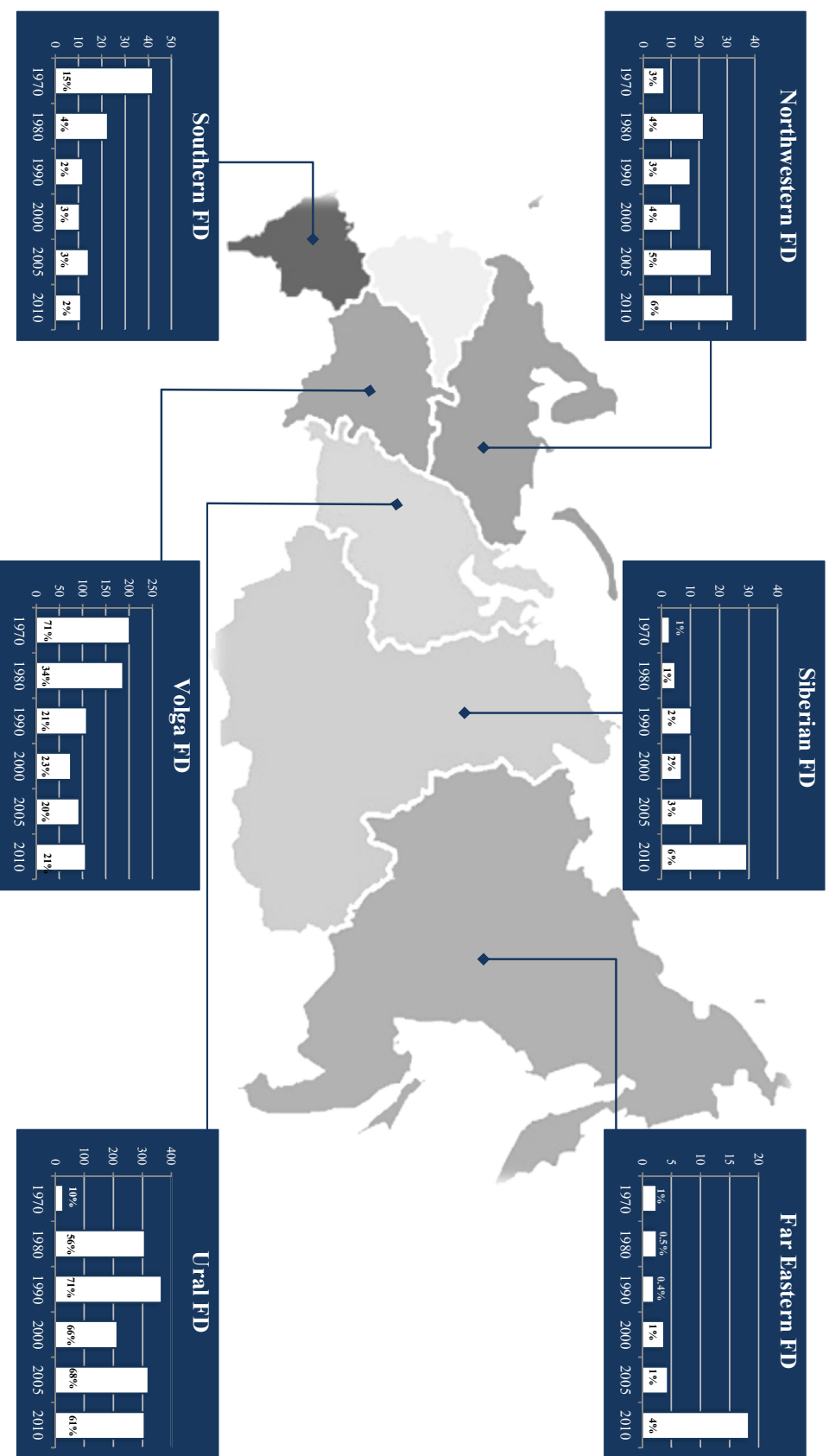


Notes: 1 – established in 1993; 2 – renamed in 1993; 3 – established in 1994; 4 – abolished in 1993

Policy Arena (1998 – 2003)

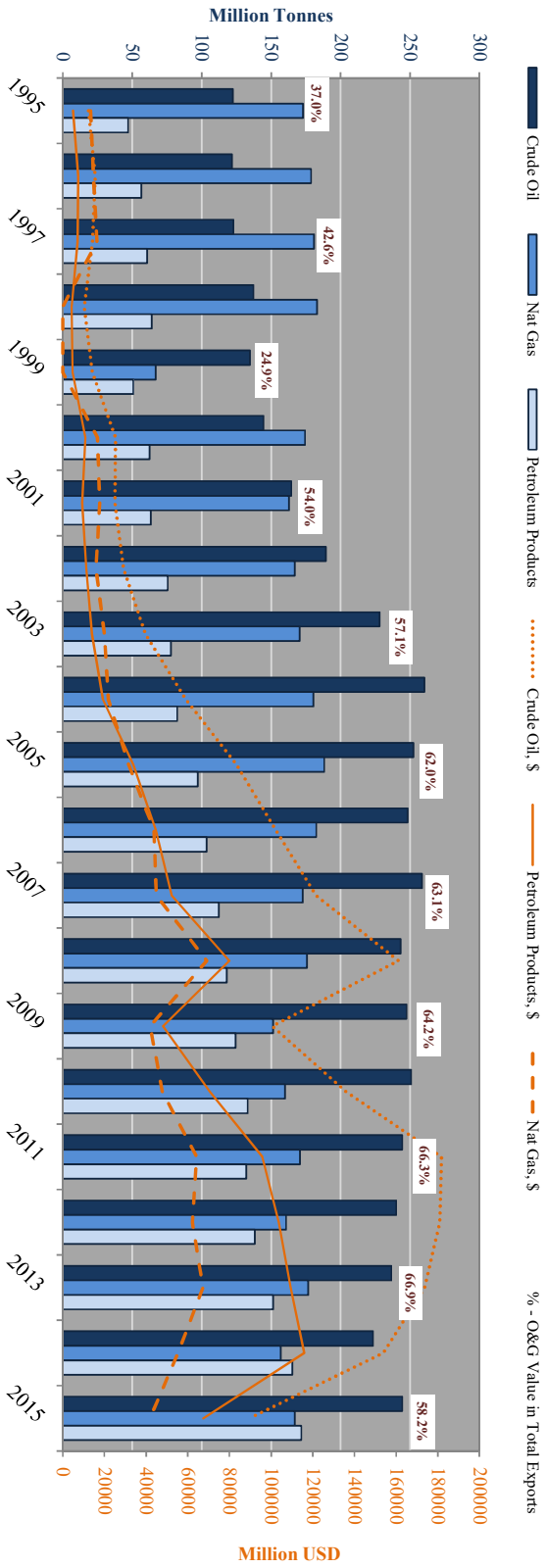


Crude Oil Production in RSFSR/Russian Federation by Region, Million Tonnes, and as a Share of Total Production, % (1970 – 2010)



Notes: FD – Federal District. Federal Districts were created in 2000. In 2010, Southern FD was divided into Southern FD and North Caucasian FD.
 Data Source: RosStat, various years

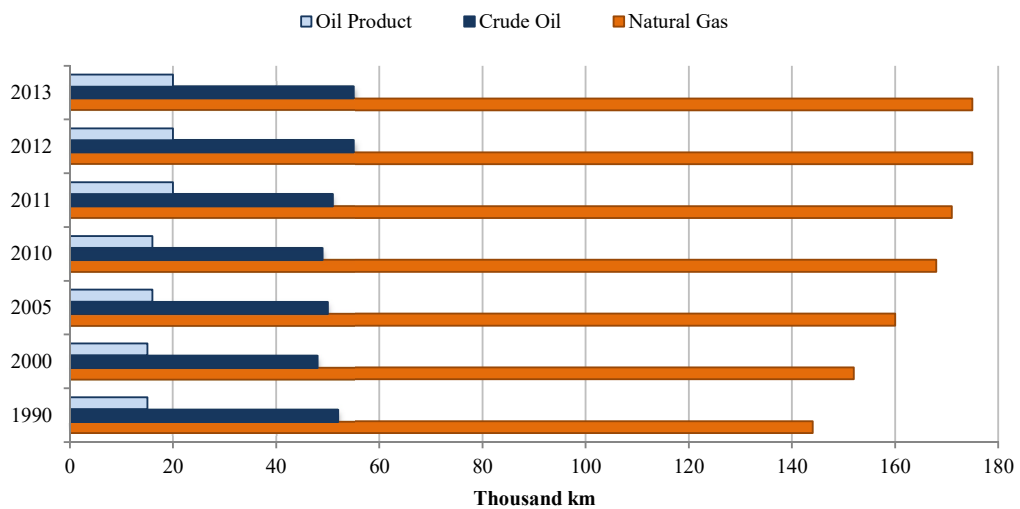
Appendix 5: Amount and Value of Russia's O&G (including Petroleum Products) Exports (1995 – 2015)



Data Sources: RusStat, various years
 Notes: No data is available for the monetary value of natural gas exports in 1998 and 1999.

Appendix 6: The Length of Oil and Gas Pipelines in Russia (1990 – 2013)

Rail and water (sea, river) used to be the dominant mode of hydrocarbon transportation in the early days of the Soviet Union. But pipeline capacity was expanded quickly. About 75,000km of crude and petroleum product pipelines were built in 1940 – 1985, and 174,000km of gas pipelines were constructed. Today, Russia continues to prioritize gas pipeline construction. Since 1990, about 30,000km of gas pipeline capacity has been added as opposed to only 3,000km of crude oil pipelines and 5,000km of oil product pipelines.



Data Source: Federal State Statistics Service (2014).