THE GREAT GAME REDUX: ENERGY SECURITY AND THE
EMERGENCE OF TRIPOLARITY IN EURASIA

_____

A Dissertation
presented to
the Faculty of the Graduate School
University of Missouri- Columbia

_____

In Partial Fulfillment
of the Requirements for the Degree

Doctor of Philosophy

_____

by

İBRAHİM ÖZGÜR ÖZDAMAR

Dr. A. Cooper Drury, Dissertation Supervisor
Dr. Patrick James, Dissertation Co-supervisor

AUGUST 2006

The undersigned, appointed by the Dean of the Graduate School, have examined the dissertation entitled

THE GREAT GAME REDUX: ENERGY SECURITY AND THE
EMERGENCE OF TRIPOLARITY IN EURASIA

Presented by İbrahim Özgür Özdamar

A candidate for the degree of Doctor of Philosophy

And hereby certify that in their opinion it is worthy of acceptance.

_____

Professor A. Cooper Drury

_____

Professor Patrick James

_____

Professor K.C. Morrison

_____

Professor L. Marvin Overby

_____

Professor James Scott

_____

Professor X. H. Wang

to

İbrahim, Melahat, Tülay, Akın, Stefanie and Demet,

for their love, support and patience…

ACKNOWLEDGEMENTS

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

Nagorno-Karabakh

South Ossetia

LIST OF MAPS

THE GREAT GAME REDUX: ENERGY SECURITY AND THE EMERGENCE OF TRIPOLARITY IN EURASIA

İbrahim Özgür Özdamar

Dr. A. Cooper Drury, Dissertation Supervisor
Dr. Patrick James, Dissertation Co-supervisor

ABSTRACT

Securing energy resources has become a key aspect of foreign policy-making since the 1970s. States have used military and economic foreign policy tools to secure the supply of energy to their domestic markets. With the fall of the USSR in 1991, political and economic competition for penetration into energy-rich regions spread through Eurasia. Inspired from the nineteenth century term to describe Russian-British rivalry in the region, the current rivalry among great powers and their allies is called the "New Great Game". This project analyzes three political conflicts that are shaped by such rivalry that can threaten global energy security. Empirical results from the expected utility model (Bueno de Mesquita 1985) suggest the rivalry among the Western (i.e.EU, US) and Eastern (i.e. Russia, China) powers about the Iranian nuclear program, Nagorno-Karabakh and South Ossetia conflicts is likely to continue and shows some Cold War characteristics. I have also found out the expected outcomes of these conflicts and foreign policy tools and obvious and unseen strategic moves available to actors. The major conclusion of the study is that the EU and US should pursue a coordinated foreign policy and balance the Russian and Chinese influence in the region to secure access to energy resources. Most effective foreign policy tools to achieve such aim appear to be the use of economic relations as leverage against Russia and China and support economic and democratic developments of the newly established republics in Eurasia.

"Now, more than hundred years later, great empires once again position themselves to control the heart of the Eurasian landmass, left in a post-Soviet power vacuum. Today there are different actors and the rules of the new neocolonial game are far more complex than those of a century ago: The United States has taken over the leading role from the British. Along with the ever-present Russians, new regional powers such as China, Iran, Turkey and Pakistan have entered the new arena… *the New Great Game focuses on Caspian energy reserves, principally oil and gas.*" (Kleveman 2003, 3)

"… our country has certain competitive and natural advantages as well as the technical opportunities to occupy a more significant position in the energy market. We should use these advantages in the interests of the whole international community, but also keeping in mind our own national interests. *Russia's well-   being in the present and the future directly depends on the place we occupy in   the global energy market.*" (Vladimir Putin, December 22, 2005)

"Other actions by the Russian government have been counterproductive, and could begin to affect relations with other countries. *No legitimate interest is served when oil and gas become tools of intimidation or blackmail, either by supply manipulation or attempts to monopolize transportation.* And no one can   justify actions that undermine the territorial integrity of a neighbor, or interfere with democratic movements." (Dick Cheney, May 4, 2006)

"EU officials admit that a key question facing the bloc is "what do we do with Russia?"… Europeans have been especially alarmed at *China's aggressive courting of African oil-producing nations* to meet its growing energy needs." (Deutsche Presse-Agentur , June 14, 2006)

"The orchestration of the use of the energy weapon against Ukraine and Moldova; the embargos of goods and services from Moldova and Georgia; the disruption of OSCE peacekeeping and peace resolution, from Abkhazia and South Ossetia to Transdniester -- coupled with essentially an economic bribery of European allies … **all seem to be part of an overall strategy of recovering a sort of imperial status in the international system.** And there does seem to be an overarching and very aggressive diplomatic campaign going on, [which] is clearly carefully thought-out, it's very aggressive, and it seems to me that Moscow's been reasonably successful in dividing America from its allies in Europe." (Jackson Diehl, June 21, 2006)

(All emphases are mine)

CHAPTER ONE
INTRODUCTION: ENERGY AND SECURITY

"The twentieth century was the century of energy" (Barton et al. 2004, p. 3).

1.1 What Is Energy Security and Why Is It Important?

Many aspects of modern life, economies and the relations between states are shaped by the development of energy resources and technologies. The reliance on energy in every field of life has made energy security tremendously important for states and societies. Especially for modern militaries, securing energy resources has become of utmost importance since the beginning of the twentieth century. Therefore, "second only to national defense", energy security has become a primary concern for the survival and well-being of both developed and developing nations (Hamilton 2005, xxi).

For some historians, twentieth century history was greatly determined by First Lord of Admiralty Winston Churchill's decision that the British Navy must switch from using coal to petroleum to maintain its hegemony before World War I. This decision shaped the course of the War; it also led the Allies to invade the oil-rich territories in the Middle East. Energy resources were even more important in World War II. One of the major reasons that Japan attacked the US was the latter's oil embargo against the former's empire. The Axis powers, lacking substantial energy resources, based their strategies on first gaining access to energy-rich areas, such as Romania and the Caspian Sea. The Allies, on the other hand, "floated to victory on a

sea of oil" and used nuclear power for the first time to conclude the war (Barton et al 2004, 3).

The modern concern with energy security began with the Arab-Israeli war of 1973-1974 and the OAPEC's and OPEC's[1] use of the 'oil weapon'. OPEC's boycott of major energy-importing countries in Europe and the US has shown how important it is for modern societies to secure their supply of energy; it became clear that an energy crisis can hurt everyone in society, including government, business, and individuals. Consequently, securing energy resources has become a key aspect of foreign policy-making since the 1970s.

With the collapse of the Soviet Union in 1991, the concerns for energy security acquired a new dimension: The newly independent energy-rich ex-Soviet republics in the Caspian basin have become a playground for the great power rivalry. The US and EU, both having suffered from the dependency on Middle Eastern energy in the 1970s, have begun increasing their political and economic influence on the region to gain access to energy resources. "The New Great Game"[2] was coined as a term to describe the rivalry between the Western powers and a weakened Russia for the control of the Eurasia region and its energy resources. Since energy hungry China has begun pursuing aggressive foreign policies to secure the supply of energy to its growing market, this rivalry has taken a "tripolar" shape. The major inquiry of this dissertation is to analyze three international conflicts in the region from the

---

[1] Organization of Arab Petroleum Exporting Countries (OAPEC) and Organization of Petroleum Exporting Countries (OPEC).
[2] The term Great Game was coined in the mid-19th century to describe the power rivalry between Tsarist Russia and the British Empire for the domination of Afghanistan. Later, in the 20th century, the term was also used to describe the rivalry between the two states over the Eurasia region and oil resources in general (Kleveman 2003).

perspective of energy security and foreign policy analysis, which are said, in popular culture, to be part of this New Great Game.

Due to these current concerns in public policy, some academic research focused on studying the subject of energy security. These studies produced various definitions of the concept with differing components. I present a definition that is comprehensive and in conjunction with the latest developments on the global energy markets.

Energy security can be defined as a condition in which a nation and all (or most) of its citizens and industries have access to adequate energy resources at reasonable prices for the foreseeable future, free from serious risks of major disruption of service (Hancher and Jansen 2004). Insecurity can arise from various causes, such as geopolitical instability, natural disasters, terrorism, poor regularity designs or a lack of investments (Redgwell 2004). This dissertation's focus is the geopolitical sources of energy insecurity.

The definition was also chosen because it underlines the integrated nature of national security and energy policy. In political science, this approach forms a bridge between security and IPE studies.

1.2 Scope of the Study and Research Questions

Stephen van Evera (1997) suggests there are seven types of dissertations produced in the political science field. According to his categorization, this project is what he calls a policy-oriented dissertation. I analyze the energy security policies of the EU and US from the perspective of the foreign policy analysis literature. My area concentration is

the Eurasia region[3]. The aim is to develop forecasts on the future of three major conflicts in the region that are likely to have an influence on global energy security. These conflicts are the Iranian nuclear program and the ethno-religious, territorial conflicts in Azerbaijan (i.e. Nagorno-Karabakh) and Georgia (i.e. South Ossetia). The project specifically focuses on the foreign policy options available to the EU and US and their competition against Russia, China and Iran on energy security policies.

The literature on energy security suggests that different countries have developed different strategies for securing their energy supply. The UN mandated and US-led coalition's campaign to secure Kuwaiti sovereignty in 1990 and 1991 can be understood within this context. The US and others prevented Iraq from becoming the second-largest oil producer in the world, control the Persian Gulf transit and threaten Saudi Arabia's militarily, which is the largest oil producer.

It is also argued that the US' and UK's military intervention in Iraq in 2003 can be evaluated in this context. As the argument goes, especially after the 9/11 attacks, the nature of US-Saudi relations has become ambiguous in ways that might have led the US and UK to unlock the Iraqi oil potential for the world markets by removing the Baath regime.

Alternatively, the EU, perhaps owing to its lack of military power and a common foreign policy, has taken a more multi-lateralist, economic incentives-oriented approach to the problem of energy security. The Green Paper of the EU Commission (2000) outlined an energy strategy for the following 20 years that aims

---

[3] In the international relations literature, this area refers to ex-Soviet Republics, in particular, Russia, Transcaucasian (i.e. Armenia, Azerbaijan and Georgia) and Central Asian Republics. I also prefer to include Afghanistan, Iran and Turkey in my analysis of Eurasia due to the past and present role of these three countries in the region.

towards ensuring the wealth of its citizens and economies and guaranteeing the

uninterrupted physical availability of energy products on the market at an affordable

price, while respecting environmental concerns and looking towards sustainable

development (Hancher and Jannsen 2004).

As the European Commission's Green Paper (2000) suggests, there are two

general problems associated with this long-term strategy: a. finding a balanced

approach between controlling demand and economic development, and b. ensuring

the supply from Russia, CIS and the Middle East that requires foreign policy

initiatives by the EU.

This project analyzes EU and US foreign policies - targeting the provision of

energy security - on three conflicts in Eurasia and aims at finding answers to the

following questions:

> 1. What are the possible effects of political turmoil in Iran, Azerbaijan
> and Georgia on global energy security?
>
> 2. What are the expected outcomes of the three analyzed conflicts?
>
> 3. What are the foreign policy options for the EU and US (e.g. alliance
> building, cooperation, confrontation, negotiation, observable and
> unseen opportunities) in finding resolutions to these conflicts?
>
> 4. How do (and will) these conflicts shape the re-emerging power-
> rivalry in the region between the pairs of EU-US and Russia-Iran?

1.3 Theory and Methodology

To answer these questions, I review and employ various theoretical approaches of

energy security, foreign policy analysis and the expected utility theory literatures.

Theoretically, this dissertation can be said to be in a place where these three streams

of literature meet.

Methodologically, an expected utility model (EUM), developed by Bruce Bueno de Mesquita (1985, 1994, 1997, 2002) will be applied to study the bargaining processes of the three conflicts. This method has been widely used in international relations and EU decision-making studies and has an established reputation of making accurate forecasts on various policy issues that involve bargaining (Kugler and Feng 1997).

1.4 Contribution to the Literature

From the security studies and IPE perspective, there is a substantial vacuum in the literature dealing with energy security, in terms of the number of studies, theory development, and using advanced methodological approaches developed in the discipline. Energy security literature lacks the intellectual give-an-take both within political science and with other disciplines, such as economics. A review of the literature by Wilson (1987) shows only a few review articles and some monographs that discuss the question which IR paradigm most sufficiently explains processes of the world energy markets. The literature did not improve significantly since Wilson has written his review, especially because of the relative stability of the world oil markets in the 1990s and early 2000s.

There is a void in the literature to be filled with new theoretical and methodological approaches to the study of energy security. This dissertation aims to partially fill this vacuum. With a new theoretical approach (i.e. expected utility theory) and the methodology that is attached to it (i.e. the formal modeling), this study will bring a new perspective to the literature on energy security. To the best of

my knowledge, there is no other study that combines theoretical and methodological principles from energy security and foreign policy analysis and expected utility literatures in the field. In this sense, this dissertation is eclectic and can be considered an original piece of research.

Also, from the perspective of the ongoing methodology discussion in the political science field, this project is a modest attempt to combine the advantages of case studies, area expertise, and mathematical modeling.

More generally, this research project is also where security studies and international political economy literatures meet. There are a few subjects in the field that are equally important for both security and economically oriented researchers and policy makers. Energy security is one of them and combining one's training and research on both issues is also useful for the intra-field theoretical development.

Lastly, the subject has a colossal practical importance for the survival of populations of the world. Considering that there has been dissatisfaction with social science and social research in terms of producing "usable knowledge" to solve real-life problems (Lindblom and Cohen 1979), I believe this dissertation can make a contribution to the literature by focusing on such a practically important issue.

1.5 Chapters of the Dissertation

As a new theoretical and methodological approach to the energy security literature, this dissertation includes six more chapters. The second chapter consists of a review of the energy security literature. Studies from various fields, such as neoclassical economics, public economics, political economy and foreign policy analysis are reviewed in conjunction with an analysis of their most studied research questions, key

variables, policy prescriptions and contribution to the overall study of energy

security. In the second part of chapter two, I review the expected utility literature and

propose employing it as a theoretical approach in this study with justifications about

its suitability for the research questions analyzed. This part also includes a discussion

of the theoretical foundations, axiomatic basis and limitations of the expected utility

theory and methodology.

Chapter three presents an account of the dynamics of the expected utility

model, which is followed by an introduction to the three variables it uses. In the

following part, the methodology based on the theoretical premises of the model is

presented. The third chapter concludes with a discussion of the case selection,

presentation of the issue questions, and data and measurement issues.

Chapters four, five and six are the empirical analysis chapters where the

dynamics of three political conflicts are discussed from the perspectives of energy

security and foreign policy analysis. Each empirical analysis chapter begins with an

introduction to the producing (i.e. Iran and Azerbaijan) or transit (Georgia) country's

importance for global and particularly European and American energy security. This

is followed by a presentation of the case study on the particular conflict at hand. A

discussion of the current bargaining positions of the actors precedes the data analysis.

Each empirical chapter ends with a brief conclusion containing an assessment of the

future of the conflict and its effects on energy security.

Chapter four presents the empirical results for the Iranian nuclear program

case and possible effects of an escalated crisis on the issue. Chapter five is an analysis

of the future of the Nagorno-Karabakh's autonomy issue and its effects on the

diversity of energy supplies for the EU and US. Chapter six examines South Ossetia's irredentist claims within the context of Georgian, Russian, EU and American involvement.

Chapter seven reviews the findings of the empirical analysis, points out policy recommendations and discusses the future research.

CHAPTER 2
ENERGY SECURITY LITERATURE, THEORY AND THEIR LIMITATIONS

Plan of the Chapter

This chapter presents a review of literature on energy security and introduces the

theoretical approach, i.e. the expected utility theory, which is employed in this

dissertation. It is rather difficult to categorize literature so unsystematic and desultory,

lacking theoretical development in a cumulative way. Therefore, the following

presentation does not claim to be strict or exhaustive.[1] It aims to clarify the logic and

contribution of different streams of literature and is organized according to the

following criteria: 1. a summary of the major research questions, key variables and

policy prescriptions of each approach, and 2. a threefold distinction between strictly

economic, administrative decision-making and foreign policy-oriented studies, i.e.

progressing from the micro to the macro level. I will first review economic theories,

then decision making-bureaucratic politics approaches and lastly political economy

and foreign policy-national security studies that emphasize macro structures as well

as micro variables.

(Figure 2-1 about here)

---

[1] There are a few other approaches to the problem that I do not present here because they are not the focus of this study, such as legal approaches and journalistic accounts.

More specifically, based on a discussion of the energy literature and its limitations, the theoretical approaches that are suitable[2] to answer the posed research questions will be discussed.

2.1 Introduction

Joseph Nye (1982, p.121) suggests that "academic fashions in political science often reflect current concerns in public policy". The literature on energy security is an example for that. After the 1973-1974 and 1979 oil crises, political scientists and economists produced various works approaching the subject from different perspectives. However, this literature has been resistant to conceptual rigor and theoretical development. Various works based on different theoretical and methodological perspectives were not successful in adequately conceptualizing the issue at hand, which is fundamental to the new international patterns of power and economic relations. The literature on energy security has been unself-conscious and uncritical in the following regards pinpointed by Ernst J. Wilson:

> There is little if any sustained intellectual give-and-take in the field of international energy policy studies over the most appropriate ways to analyze the phenomenon. A thorough search of the literature reveals only a mere handful of review articles or monographs which seriously debate the relative explanatory power of competing paradigms for the world oil market. Given the immense practical importance of the subject and the interest shown by social scientists, and in light of potential intellectual payoffs, the quality of theoretical literature is meager at best. A void exists at what should be the center of the field (Wilson 1987, p.126).

---

2 This refers to approaches that can help overcome some of the difficulties that previous research has faced.

This trend in the literature did not change since Wilson wrote that paragraph about two decades ago. Especially with the end of the Cold War and the relative stability of energy markets in the 1990s, there has been almost no theoretical development in the literature dealing with energy security. Therefore, there is a great opportunity for political scientists to contribute to the theoretical development. IPE literature studies trade, finance, aid, foreign investment and economic coercion, but the subject of energy from a security perspective has not been a priority in the field.

This leads to important intellectual consequences. First, the theoretical background of the field makes it impossible to measure intellectual progress beyond collecting raw data. Second, as a result of lacking self-criticism, the research agenda does not show progress as a "scientific research enterprise" in James' (2002) terms. In other words, the disorganized nature of the research prevents scholars from prioritizing the issues to be studied (Wilson 1987). Despite the lack of organization of the literature, it can be split up into three general sections: neoclassical economics and public choice, policy and political models and political economy.

2.2 Neoclassical Economics and Public Choice Literature

Economists have studied energy markets extensively. The paradigm they worked with is based on the organizing principles of neoclassical economics. That is, the basic laws of supply and demand determine the behavior of energy markets: Supply and demand meet in the market and operate in equilibrium. The prices of oil, natural gas or other resources will be determined by where the forces of supply and demand

meet. Political variables are generally attributed to be intervening variables or to cause market externalities.

Externality refers to an external economy (diseconomy), an event that grants an appreciable benefit to a person or group of people who were not fully included in the decision process that led directly or indirectly to the event in question (Meade 1973, Cornes and Sandler 1996). There is a substantial body of public economics literature that focuses on energy market externalities. Bohi and Toman (1995 and 1996) classify literature that focuses on energy market externalities under four categories: studies dealing with OPEC and its market power, the US' monopsony power, indirect costs of market power, and the relationship between oil import costs and military expenditures. (Monopsony refers to a market with many sellers and only one buyer.)

Adelman's (1972) *World Petroleum Market* is a classic example of neoclassical economics literature on energy security. According to Adelman, the government has no say in providing oil markets with stable prices. The invisible hand of the market determines the prices and outputs. The government's effort to stabilize prices is a waste of time and resources, according to this point of view, and exporting countries are less likely to cut back their production for political reasons (Wilson 1987). This deterministic description and explanation of energy markets proved to be incorrect regarding two successive crises within six years during the 1970s.

Adelman's other works (1974, 1980, 1990 and 2004) also extensively focused on OPEC's market power. In many of his articles he argues that the OPEC has exercised market power and acted as a cartel, although as a "clumsy" one, as he

acknowledges. Since the last two-and-a half decades he has been arguing that the real

threat to the world oil market is OPEC's clumsiness and shortsightedness. He argues

that there is an unexplainable gap between the oil prices and the marginal cost of oil

supply. The difference is of course the monopoly profit. In his 1974 article, which

was published about half a year after the 1973 oil crisis, he claims OPEC created a

producers' monopoly, which was possible due to the lack of cooperation from US

allies. Ultimately, he does not believe in the idea of an 'oil weapon' but thinks that

there is too little cooperation among consumers to contain the cartel. But he

subscribes to the view that, producers and consumers cannot take the risk of

alienating each other.[3] His solution against attempts to blackmail the Western

economies is simple:

> "We need only tell the Saudis their embargo on shipments to us
> is henceforth permanent, their status having been canceled by
> their own act" (Adelman 1974, 66)

It is obvious that the OPEC has the capability to influence oil prices.

However, economists and political economists tend to disagree to what extent and

how, because the OPEC does not act like a typical price-setting cartel (Bohi and

Toman 1995). There is a disagreement on whether OPEC can really apply market

power. MacAvoy (1982), for instance, suggests that the price crises of the 1970s

could have happened even if OPEC had not acted the way it did, for those peaks were

results of increasing demand and specific international political crises. Griffin (1985),

---

[3] In a similar study, Kennedy (1974) argues the same way, but from a different point of view. Kennedy
claimed that OPEC acts like a cartel but to a limited degree. He concludes that the price peak in 1973
couldn't be maintained because the largest producing region, i.e. Middle East and North Africa, would
have a problem allocating the reduced production amounts among the member countries. In retrospect,
his predictions turned out to be accurate.

on the other hand, tests alternative hypotheses about the question of OPEC's market power and finds that the organization appears to be a partial market-sharing cartel. OPEC members' outputs are sensitive to demands of individual consumers, but the output changes are not strictly proportional (Griffin 1985, Bohi et al. 1995).

The second type of market externality that Bohi and Toman (1995 and 1996) analyze is the US monopsony position in the market. They argue that the US as a whole can be a monopsony power. The question is whether the US can retaliate against OPEC if the latter uses its seller's power. As the quotation above implies, Adelman thinks the US does have ways to exercise retaliation. Other economists argue such a step would not be efficient to decrease the price of oil (Broadman and Hogan 1988)

Third, the literature studied the indirect costs of market power. The argument is that higher oil prices turn into depreciation in dollar, and oil prices put pressure on inflation. Both ideas are discussed extensively and it there are examples from both sides of the discussion. James D. Hamilton (1983), for instance, suggests that in the period from 1948 to 1972, all but one of the recessions in the US were preceded by a dramatic increase in the price of crude oil petroleum. He shows that a correlation between the price of oil and recession is significant and that it is not spurious that oil shocks are contributing factors in at least some of the recessions the US faced prior to 1972. Hubbard (1986) reaches the same conclusion: Even transitory shocks exhibit persistence effects on long-term prices, although he acknowledges that the persistence of shocks also depends on the structure of the given economy. On the other hand, other studies argued the effect of oil price shocks or increased inflation is

exaggerated. Eastwood (1992) shows that the oil prices' effect on US inflation might be overstated. In a similar study, Kibritcioglu and Kibritcioglu (1998) argue the effect of crude oil price increases on inflation in Turkey is insignificant.

Fourth, it has frequently been argued that substantial military expenditures, such as in the Middle East, add to the social costs of oil imports. Although this argument is popular in mass media and public discourse, Bohi and Toman (1995) say it rests on several logical and practical mistakes. First, they argue, these expenditures are costs of mitigating energy security and not a cost of insecurity itself. Also, the expenditures are made to accomplish many security goals, not only the security of energy. Last, assigning premiums to oil imports is logically and mathematically wrong for different reasons: The military expenditures are made to prevent damage of the total energy consumption, so the unit cost should reflect a denominator that is so big. Also, the US's military presence in energy-rich regions is good for many allies, not only for the US. For all of these reasons, Bohi and Toman (1995) argue that the cost of a military expenditure premium on oil should be sharply reduced and the subject should not be neglected.

Finally, some of the literature on energy economics is devoted to the examination of the relationship between oil price hikes and oil investment and developments (Brennan and Schwartz 1985,   Dixit and Pindyck 1994). This research focuses on the question what time is economically optimal for energy companies to invest. This question is related to the energy security of nations; more investment mean more spare capacity and more sellers in the market. In a very interesting study, Miller and Zhang (1996) argue that according to the theory of irreversible investment,

the development of an oil field should take place when a unique "price trigger" is passed. They study the 1990-1991 Gulf War and its effects on prices in England. They found that in order to conduct a more thorough analysis, they need to incorporate the large transitory price hikes (i.e. during the Gulf War), evaluate the profitability of an oil field contingent on war and peace and calculate separate triggers in both cases. They find that the switch between these two triggers is about three-fourths of the price hike caused by the war. Therefore, they argue that only a quarter of the price hike should be accounted for calculating the cost of an oil field, because the prices fall back to about three fourth after the wars.

A general evaluation of energy security externalities and neoclassical economics literature on energy is that they advanced our knowledge of identifying different externalities that cause energy markets to fail to internalize all costs and benefits. However, empirical evidence on these externalities is not dependable and more research is required to observe the causal effects of externalities on energy market fluctuations and trade (Bohi and Thoman 1995). Although this literature is useful with respect to capturing the dynamic nature of energy markets, the occasional exclusion of political and institutional variables constitutes its weaknesses. In the long-run, the main element determining energy prices and supply is most probably the market; in terms of short-term influences, however, political variables proved to be of utmost importance (Wilson 1987).

2.3 Bureaucratic Politics Model and Public Administration Literature

Bureaucratic politics (Miller 1977, Greenberger 1983) models represent the second group of studies analyzing energy security. These models are concerned with where markets and domestic politics meet. Authors focus on elite decision making, emphasize the role of power, leadership, interests and the markets, short-term volatilities, production levels, prices, and the decisions shaping them (Wilson 1987).

Stephen Krasner (1979), for instance, explains whether the short-term push and pull of business interests shapes the national interest of the US in the energy policy sector. He claims that the White House and State Department are relatively independent of societal pressures when it comes to determining the raw materials and energy resources that are allowed to be imported. Similarly, Moran (1978, p. 264; quoted from Wilson 1987, p.138) argues the models of economic maximization are not realistic and misleading when applied to OPEC decision-making; the most complete and powerful explanations were those acknowledging that "political and security concerns wag the economic tail, and not vice versa; where they conflict, the former prevail".

The contribution of this line of literature, I argue, is in the field of US policy-making. The authors illuminate how foreign policy-decisions regarding energy markets in the US and OPEC countries are made. Their accomplishment is the combined analysis of political and economic factors that shape foreign policy decisions. The weakness of the literature is that, unlike regime theorists or structural realists, the research is not concerned with the overall distribution of power and capabilities in the international system. This, of course, allows researchers theoretical

rigor, since they only conceptualize political processes. However, excluding the positions of states vis-à-vis in the international system weakens their analysis.

A second group that studied energy security from the perspective of domestic politics is public policy literature. These studies focused on practical problems when it comes to federal and state government policies concerned with energy security. Researchers analyzed various policy questions, like the nature of energy security policy-making in the US' or EU's political system (Moe 1979, Matlary 1997); the tension between federalism and state level policy-making in the energy policy context (Light 1976 and 1979); the nature of the relationship and negotiations between different federal agencies and inter-organizational conflicts on energy issues (Molnar and Rogers 1979, Burkardt et al. 1997); science and federal funding issues for energy research (Lambright 1998), and more at the macro level, discussions about expanding federal agencies and creating new organizations (e.g. High Energy Administration or the Energy Commission) to coordinate energy policies (Keenan 1968, Tribus 1975). These studies focus on domestic decision making, the administrative, coordination and financial sides of the issue and tend to ignore the international side of the energy security coin.

2.4 Political Economy Literature

2.4.1 Regime Theory

The regime theory focuses on political rules that shape economic relations and create the environment in which states and markets operate. The IPE literature has produced some important works that attempt to capture the political economic nature of energy

security. The main premise that guided such analyses is the notion that economic systems do not emerge spontaneously but rest on a particular political order and exercise of power (Gilpin 1975, 2001).

The regime model presents energy crises and energy security issues from a perspective of international regimes, in which certain values, norms, expectations and interdependent relations change the behavior of the actors. The most powerful actor in the regime (like a principle actor in the rational choice literature) provides public goods and positive benefits to the actors operating in the regime. According to this model, regimes change because the heft of the most powerful actor, or hegemon, has changed. Regime theorists, such as Keohane and Nye (1977), conceptualize the energy market crises of the 1970s in this context. Nye (2005) characterizes the pre-1973 international oil regime as one of a private oligopoly with close ties to the governments of the major industrialized consumer countries. After 1973, a major change took place in the international regime that governed oil. With the OPEC embargo and oil crisis, the producing countries set the level of production, which gave them a huge leverage on international politics and economics. According to Nye (2005), this led to an enormous shift of power and wealth from the industrialized world to the relatively poor members of the international system. Nye (2005) does not think it was the OPEC act that led to this change, because OPEC had been established in 1960 and did not use the production and exports as a weapon until 1973. Such a major change in the international oil regime can be explained with three factors: the overall balance of power, the balance of power concerning the oil issue and the influence of international institutions (Nye 2005).

First, the stability of the regime is altered due to the decline of American power. For Nye (1981 and 2005), the British withdrawal from the Persian Gulf and the US' reluctance - or incapacity - to fill the power vacuum in the region led to the breakdown of the international oil regime:

> "In summary, the loose regime that governed the oil market broke down in 1970s under the influence of catalytic political events and long-term shifts of power, not because of OPEC's formation or because of market forces alone" (Nye 1981, p. 12).

Nye argues America's reluctance to replace British forces in the 'East of Suez' and trying to get foreign policy objectives done via regional powers like Iran were mistakes that led to the 1973 and 1979 events. This is indeed a realist explanation of the 1973 and 1979 oil crises.

His second explanation employs a more modified realist account that solely focuses on the distribution of power within the oil issue itself, not only the overall military balance. This line of argument suggests that the international oil regime went through substantial changes: The US was the largest oil producer until 1971 when its production peaked, leading to a substantial increase in its oil imports. During the 1956 and 1967 wars, the Arab states attempted to pursue an embargo that failed because the US was able to supply Europe with its surplus oil when the Arab states did not supply oil. Once the US began importing oil in substantial amounts, the power balance was changed in favor of Saudi Arabia.

Lastly, Nye (2005) argues that international institutions, specifically multinational companies and OPEC, could be the reason for the change of the oil regime. That is, multinational companies (e.g. the seven sisters) lost power because

local workers, engineers and staff in the producing countries learned how to run the oil business. Therefore, multinational companies, influenced by Western governments, lost their bargaining power against oil producing nations. OPEC's price control also became more influential because oil was not as abundant as in the preceding two decades. This gave OPEC more bargaining leverage and room to act like a genuine cartel.

Regime theorists also carried out an analysis of the effects of domestic actors on international regimes. Keohane (1984) demonstrates in what ways domestic actors prevented the inclusion of cheap Middle Eastern oil on American markets, which led the US to be more vulnerable to the price shocks of the 1970s. This is a clear example of how domestic factors can affect international regimes, or how oil independents[4] harmed the energy security of the US.

The strength of this literature lies in its emphasis on the political influences on energy markets. As Gilpin suggests (2001), markets do not operate in a vacuum. This literature successfully shows that there are rules and regulations that adjust market behavior and also that states intervene in the markets when they perceive market failures.

This line of literature, however, can be criticized, as well, because it fails to draw analytic linkages between markets and regimes. Deese (1980) and Wilson (1987) argue more attention should be paid to identifying and analyzing specific political mechanisms that affect energy markets. Also, the boundaries between markets in general and energy markets in particular are not clearly drawn. This

---

[4] I.e. smaller independent companies that are involved in wholesale sales, distribution and retail of products such as oil, gas and diesel fuel other than the major oil companies and refineries.

objection appears legitimate, especially if one takes into account the specific arrangements of energy markets and the security dimension for the states.

2.4.2 Resource Conflict Literature

In the early 1980s, with a decline of various resources in the world and the problems associated with the markets distributing them, literature on global resource scarcity has begun to emerge. These studies are of course not the first to theorize about resource scarcity. Thomas Robert Malthus (1766-1834), a British political economist, wrote more than two centuries ago in *An Essay on the Principles of Population* (1798) that the "population increases in a geometric ratio, while the means of subsistence increases in an arithmetic ratio."[5] Exponential population growth and environmental degradation, in his opinion, will lead to inevitable conflicts over natural resources between nations:

> "For the principle of population will still prevail, and from the comfort, ease and plenty that will abound, will receive an increasing force and impetus. The number of mouths to be fed will have no limit; but the food that is to supply them cannot keep pace with the demand for it; we must come to a stop somewhere, even though each square yard, by extreme improvements in cultivation, could maintain its man. In this state of things there will be no remedy; the wholesome checks of vice and misery (which have hitherto kept this principle within bounds) will have been done away; the voice of reason will be unheard; the passions only will bear sway; famine, distress, havoc and dismay will spread around; hatred, violence, war and bloodshed will be the infallible consequence; and from the pinnacle of happiness, peace, refinement and

---

[5] Thomas Malthus. An Essay on the Principle of Population, as It Affects the Future Improvement of Society with Remarks on the Speculations of Mr. Godwin, M. Condorcet, and Other Writers. London, Printed for J. Johnson in St. Paul's Churcu-Yard, 1798. Rendered into HTML format by Ed Stephan, 10 Aug 1997: http://www.ac.wwu.edu/~stephan/malthus/malthus.0.html

social advantage we shall be hurled once more into a
profounder abyss of misery, want, and barbarism that ever by
the sole operation of the principle of population!" (Malthus
1798)

In such euphoric times about the future of mankind (i.e. during the

Enlightenment Revolution), Malthus' view was rather pessimistic but perhaps more

realistic, for towards the end of the twentieth century, the world witnessed famines

(e.g. in Africa or Asia), resource crises, such as the energy crisis in the 1970s, and

serious environmental problems like global warming.

The literature on transnational resource conflicts focused on the reasons and

remedies for resource conflicts. Researchers showed that there is yet another form of

non-violent conflict but also pointed out that they can turn violent in the near future

(Choucri 1974, Choucri and North 1975, Russett 1981-1982, Kemp (1977-1978),

Bannon and Collier 2003, Trolldalen 1992, LeBillon 2005, Klare 2001).[6]

Robert Mandel (1980 and 1988) suggests that global resource scarcity has led

to an increase of nonviolent resource conflicts on the international level. He focuses

on a wide range of resource conflicts, not only related to fossil fuels but also to other

resources, such as whaling (between the US, Japan and USSR), food (grain conflict

between the US and USSR), strategic non-fuel minerals (such as chrome, manganese,

cobalt), and environmental pollution and nuclear disasters (e.g. Chernobyl).

Mandel (1980, 101) describes a framework of factors that determine the

occurrence of transnational conflicts:

---

[6] There is also literature on resource conflict at the domestic level that substantially contributed to our
understanding of resource conflicts in general, such as Ted Gurr's (1985) *On the Political
Consequences of Scarcity and Economic Decline,* or Reuveny and Maxwell's (2001) *Conflict and
Renewable Resources.*

1. A decreasing and inelastic resources supply on the global, rather than national or local level,

2. an increasing or constant inelastic demand for these resources on a global, rather than national or local level,

3. a change of global resource access compared to the earlier period where unrestricted access to resources by some nations caused their inequitable distribution,

4. an increasing significance of collective or common pool resources, rather than private or nationally monopolized resources,

5. an increase in spillover effects of one nation's resource policy on others,

6. an increase in the complex structures of international interdependence when extracting, processing and distributing resources, and

7. an increased impact of transnational and non-governmental forces, such as Greenpeace, in determining the use of resources.

According to Mandel (1980, 1988), Choucri and North (1975), Kemp (1981-1982), Campbell (1977) and Russett (1981-1982), the fact that the markets cannot distribute resources as well as they used to causes different patterns of conflict in international politics. These patterns can be evaluated by analyzing the interests and strategies of different stakeholders. First, as a result of the conflict, industrial states with more military capabilities tend to use those capabilities for economic gains. That is, powerful industrial states tend to initiate conflicts to satisfy their citizens' insatiable demands and maintain economic growth. Second, the weaker producing

states start bonding to counteract the impact of industrialized countries or their companies with the goal of achieving a redistribution of scarce resources. Third, the non-state actors, like conservationist groups, become involved in natural resource policy-making.

This line of literature can take credit for facilitating the definition of the problem of transnational resource conflicts. It effectively highlighted the problem in the early 1970s and brought to attention the way it evolved by theorizing about the relationship between markets, states and non-state actors. However, the literature's skeptical propositions about the industrialized states' conflict initiation cannot be confirmed when reviewing wars in energy-rich regions in the last three decades. Other than the 2003 Iraq War, the conflicts in these regions were generally started by an industrializing state or states. Their hypothesis that industrialized states will initiate conflicts to maintain their economic growth rate does not correspond with these cases.

2.4.3 National Energy Security and Foreign Policy Literature

The examples from this line of the literature are fairly similar in their conceptualization of the subject; however, there are fine differences in their scope and emphasis of prescriptions. One branch of this literature is military security-oriented and focuses on the implications of energy security on armed conflict, while another branch emphasized regional and global proactive foreign policy-making to ensure the security of supply.

Russett[7] (1981-1982) asks the important question whether history will repeat itself if security and resources decline. He draws parallels between 1914 and 1984 and speculates about the possibility of a military confrontation between the US and USSR in the Middle East over natural resources, especially the oil. He argues that the risks of a confrontation of international great powers over resources will be fairly possible in the 1980s. In retrospect, his predictions did not exactly come true, owing to the decline of the Soviet Empire in the late 1980s. The 1990s witnessed a fairly stable international oil regime, as well. However, in the new millennium, the demand for energy hit a peak that caused a great power rivalry, if not a conflict, in the Caspian, Eastern and Central European regions between the US and Russia, as well as the EU and Russia. A substantial part of this dissertation in fact focuses on the rivalry in the Caucasus and Caspian regions among Russia, the EU and US.

Similar studies (Kemp 1977-1978 and Campbell 1977) focused on changes in the balance of power and producer-consumer relations in the Middle East. John C. Campbell (1977) argues that the events of the 1970s made Iran and Saudi Arabia much more powerful than they ever expected to be, which changed their relations with the Western industrialized world. Although he stresses the changed dynamics of the relations between those two groups of countries and asserts that Western economies are defenseless against producers, he correctly points out the internal, regional and international vulnerabilities of the producing nations and does not forecast a full scale confrontation. He suggests Western nations cannot use force to take over oil fields without causing a great stir in the Middle East, while producers

---

[7] Copaken (1995) makes an excellent explanation of oil as a strategic commodity, similar to Russett's, by evaluating the cases of Japan (1930-1941) and World War II for all actors involved, especially focusing on Japan, Germany and the Middle East since the outbreak of World War II.

cannot push consumers too much without harming themselves. In retrospect, his

analysis holds valid: Since the 1973 oil crisis, there was not a single concerted effort

from OPEC to substantially disrupt the flow of oil or gas.

Geoffrey Kemp (1977-1978)[8], on the other hand, evaluates the energy

security-foreign policy relationship from a military intervention point of view and

categorizes the possible types of military interventions needed to ensure energy

security for the US. He argues that there are three major types of military

interventions that might be required:

> First, military conflict to control, destroy or protect a given resource, such as
> an oil field, a watershed, fishing areas, arable land or precious mineral areas;
> second, military deployments to annex or protect a land or sea area believed to
> contain or to be close to potentially valuable resources such as offshore
> islands near oil-bearing rock formations; third, military conflict that affects
> access routes   to and from sources of supply –sea, air and land lines of
> communication,   especially straits, and airstrips, railroad systems and
> ports. (Kemp 1977-1978, 413)

Kemp argues that the sources of contention in each case might or might not be

energy resources per se. He distinguishes between cases where resource conflict is the

primary reason for disagreements, like in the Anglo-Icelandic Cod War, and cases

where oil is a secondary concern for both parties, albeit potentially catalytic, as in the

Greek-Turkish conflict over Aegean Sea oil exploration. Charles Doran, one of the

pioneers of energy security research, challenges the myths surrounding the

relationships between the oil industry, markets, OPEC, governments, militaries and

the Middle East (Doran 1977, 1980 and 1991). In his well-known book, *Myth, Oil*

and Politics: An Introduction to the Political Economy of Petroleum, he refutes six

---

[8] In a similar study, David L. Weimer (1995) reaffirms the importance of the relationship between
petroleum and national security and proposes specific remedies to diminish US military dependence by
strategic stockpiling.

different "myths" that surround oil as a strategic commodity. These myths include:
the existence of inequitable (or unfair) oil prices; Israel and Middle Eastern wars
being reasons for high oil prices; obscene corporate profits due to high prices; the
necessity of divesting major oil companies to break their power; the idea that the
International Energy Agency created a consumer program capable of making a stand
against OPEC and others, and that OPEC members will act cohesively as a cartel to
control international market prices. Doran successfully disproves these myths by
showing that they are based on inaccurate and incomplete information and false
assumptions about the politics and economics of oil. However, Doran is not quite
clear about who actually subscribes to these myths (e.g. governments, media,
consumers, international actors), how they affect US policy-making, and the remedies
he suggests (such as international cooperation to replace the IEA). I think the most
important achievement of this book is that it falsifies the six outlined myths and
makes a sound introduction to the political economy of oil markets. That is, Doran
successfully combines political and economic variables in addressing the research
question.

The last section of this subchapter is devoted to the literature that theoretically
inspired this dissertation the most. This line of the literature emphasizes the
importance of foreign policy making in achieving energy security goals. These
studies, of course, do not exclude domestic factors that are major components of the
energy security of a country, such as domestic investments, deregulated markets, and
strategic reserves. However, they strongly emphasize the role of foreign policy-
making (both for the EU and US) to guarantee the supply for their domestic markets

(Stobaugh and Yergin 1979, Bahgat 2003, Schlesinger 2005, Hamilton 2005, Kalicki and Goldwyn 2005a, Siemenski 2005, Yergin 2005, Kalicki and Goldwyn 2005b).

The incorporation of both the domestic and foreign side of the energy security coin in their analysis is one of the greatest strengths of this literature. Its conceptualization of energy security is more comprehensive than that of any other stream of literature discussed above. Daniel Yergin (2005), for example, proposes that energy security has ten key principles of importance. These can be briefly summarized as follows: 1. Diversification of supply, 2. stability of the global energy markets, 3. spare capacity (e.g. Strategic Petroleum Reserves), and 4. freer market - less regulations, 5. building cooperative relations with producer and exporting countries, 6. dialogue and cooperative relations with consumer nations, 7. a proactive security framework, including foreign policy that prevents disruptions of the entire chain of supply, 8. a well-informed public, 9. a healthy, technology-driven energy industry and 10. a commitment to research, development and innovation across a broad spectrum. This dissertation deals with the seventh of the ten principles that concern energy security, focusing on proactive foreign policy-making to prevent disruptions of the supply chain.

In a large volume, *Energy Security: Toward a New Foreign Policy Strategy,* the editors Kalicki and David Goldwyn (2005) brought together the leading authorities on the subject in US. The main conclusion of the volume is that energy concerns must be integrated into US foreign policy. They argue the energy tail should not wag the foreign policy dog. The authors recommend that fundamental US policies, such as defense against threats like terrorism and the promotion of

democratic, economic and humanitarian objectives around the world should not change. They rather suggest that energy is a growingly important vehicle to advance these and other objectives.

Kalicki and Goldwyn (2005b, 570) describe the "positive relationship among energy, foreign policy and national security" as concentric circles, as shown in Figure 2-4-3-1. The core circle symbolizes the defense against the physical disruption of supply. The US economy and society depend on this supply. The second circle shows the strategic reserves to guard the domestic market under extreme pressures from producers or other disruptions, such as natural disasters. The next circle illustrates the use of energy resources to spur development, promote transparency and help resolve conflicts. The fourth and last circle suggests using energy as an instrument to promote regional foreign policy objectives in producing regions in a way that reinforces - and is reinforced by - the other three circles.

(Figure 2-4-3-1 about here)

This framework of analysis suggests that the US will face four major challenges in foreign policy issues related to energy security, which are "building alliances, strengthening collective energy security, asserting its interests with energy suppliers, and addressing the rise of state control in energy." (Kalicki and Goldwyn 2005b, 571) These foreign policy challenges will require solid responses from the US government. Kalicki and Goldwyn (2005b) explain the necessary foreign policy responses in detail. They determine eight specific foreign policy responses that are required to overcome the explained challenges. Due to space constraints not all of them can be discussed in detail. I will present the most important two, as they are

31

exactly the foreign policy responses that are analyzed in the three cases of this dissertation.

The authors suggest the first component of the new foreign policy described is "candor and respect" for the producer countries. They argue that US policy makers avoid criticizing producer governments for fear of threatening their relations with them and therefore put the US' energy security at risk. The authors claim that the US has been too silent on Africa's kleptocracy, Russia's trespasses on rule of law, and repressive, undemocratic governments in the Middle East. Their suggestion is to criticize the producing countries in the international arena and penalize them if necessary. This aspect of foreign policy most concerns the Middle East. Most governments in the Middle East repress their people and some of them, like Iran, threaten the stability in the region. American foreign policy, according to the authors, should challenge these kinds of threats.

Second, America needs foreign policies that promote the stability and security of its suppliers. This second goal is related to the Azerbaijan and Georgia chapters of this dissertation. That is, the US should intervene in regional conflicts to provide stability and security to the ally suppliers. The three analyzed cases fall into the first and second most important foreign policy objectives that US can use.

Similarly, the European Union has become concerned with energy security in the last five to seven years. The research conducted and funded by the EU Commission and the EU Council produced various important documents and studies that benefited this dissertation.[9] In *Study on Energy* (2004, 15), the primary result of

---

9 Such as Study on Energy Supply Security and Geopolitics (2004), Green Paper – Towards a European Strategy for the Security of Energy Supply: Technical Document (2000), Green Paper:

the research is fairly similar to the one described by Kalicki and Goldwyn's (2005b) energy security strategy for the US: "… energy must become an integral part of EU external trade and foreign and security policy-making. EU foreign and security policy and external trade policy are crucial energy policy tools to achieve future security of supply."

Figure 2-4-3-2 and table 2-4-3-3 show that when a producer country or region is unstable, the primary tool for the EU is prevention by foreign policy making.

(Figure 2-4-3-2 and table 2-4-3-3 about here)

Therefore, we can conclude that both streams of literature suggest that energy security must be a fundamental part of US and EU foreign policies, and the most efficient way to handle threats to the supply chain is the application of proactive international policies that prevent instability in energy-rich regions.

2.4.4 A Summary of Theorizing

Table 2-4-4-1 shows how different theories in the existing energy security literature conceptualize the most important variables for providing energy security for a state. The neoclassical economic approach asserts that markets are the sole factors shaping energy market stability; it also recognizes the domestic and international side of the issue and argues state intervention is useless. Policy models are the most useful regarding the analysis of political and economic factors in a synthesized way and identifying the influence of states and diplomacy. This approach, however, does not

Towards a European Strategy for the Security of Supply. European Commission (2000), Communication from the Commission to the Council and the European Parliament: Final Report on the Green Paper (2002).

incorporate how systemic characteristics of international relations at the time of decision-making contribute to policy-making. Regime theorists, on the other hand, incorporate domestic and structural realities of foreign policy decision-making, yet, cannot incorporate the influence of market actors into the analysis of decision-making.

The literature on transnational resource conflict is most useful in terms of defining the nature of the problem; however, their propositions about the behavior of great powers, both among themselves and against the developing producer countries, did not appear to be valid. Their emphasis on the increased role of non-governmental organizations does not reflect the realities of international politics.

(Table 2-4-4-1 about here)

Alternatively, the literature on the relationship between energy, national security and foreign policy incorporates the most important variables that energy security research should include, as Table 2-4-4-1 indicates.

Still, the problem with this literature lies in its exclusive dependence on case studies, personal accounts and policy prescriptions from professionals. That is, these studies do not seem to benefit from the advancements regarding foreign policy-domestic policy connections and analysis in the political science literature. They focus on some specific foreign policy goals that they believe the industrialized states should pursue. They lack advanced theoretical and methodological analyses. As a result, I propose using the expected utility theory of foreign policy and the related methods for energy security-related foreign policy analyses. Figure 2-4-4-1 is a

symbolic representation of where the eclectic theoretical approach of this project[10]

fits in the literature. A more detailed discussion of why I chose to use expected utility

theory is presented in the following section.

(Figure 2-4-4-1 about here)

Before dwelling on the expected utility theory and literature, I present the

assumptions I borrow from the energy security literature discussed above. The

literature on energy security, albeit its problems, has its strengths that will benefit this

analysis. They are briefly outlined below.

> Assumption 1: Important externalities exist in the international energy markets that create problems for the functioning of the markets without intervention. (Cornes and Sandler 1996).

> Assumption 2: Government intervention is necessary to mitigate the effects of these externalities in the energy markets (Bohi and Toman 1996).

> Assumption 3: Foreign policy as a necessary and integral part of the EU's and US' energy policies must be used proactively to prevent disruptions of the entire chain of energy supply (Kalicki and Goldwyn 2005a and 2005b).

> Assumption 4: Until 2020, there will not be physical shortages of oil and gas in the global energy markets; any disruption will arise from political problems for trade, production and investment in oil and gas industries (Study on Energy 2004).

> Assumption 5: In the next twenty years, it will not be possible for the US and EU to replace the existing energy trade and security links with Middle Eastern producing nations (Kalicki and Goldwyn (2005a).

> Assumption 6: Russia and the Caspian regions can provide Western economies with supply diversity. Thus the US and EU should prevent political turmoil in the region by proactive foreign policy (Nanay 2005, Study on Energy 2004).

---

[10] I.e. a combination of various axioms from the energy security, foreign policy analysis and expected utility literatures.

2.5 An Expected Utility Theory of Energy Security

2.5.1 Game Theory and the Expected Utility Model

This literature review was guided by one major question: Can one theory incorporate all of the important factors, i.e. political actors, economic actors, and the international system, that shape the energy security policies of nations and explain the influence of both domestic and systemic pressures on policy-makers? Another important question is whether a theory and its methodological approach can explain the participation of different actors in decision-making processes accurately and be employed to answer questions such as 'What groups of society influence certain policies to what degree?'. I suggest an expected utility approach to energy security issues to provide this project with tools that can help overcome some of the difficulties that the previous approaches have faced.[11]

The expected utility theory was being developed to explain decision making processes under uncertain conditions. The most basic hypothesis suggests that the expected utility of an actor facing a decision under uncertain conditions is the utility in each state discounted by the actor's estimate of the probability of each state. Developed by Von Neumann and Morgenstern (1944), this theory has been extensively used by social scientists studying human behavior under uncertainty.

In international relations literature, game theoretic analysis begins with Thomas Schelling's *The Strategy of Conflict* (1960). Since then, studies using this type of reasoning have burgeoned and contributed to the international relations

---

[11] Game theory is a theory of interdependent decisions and based on the expected utility theory. Both theories are parts of a broader approach called rational choice theory and more an elaboration of applied mathematics than a type of economic analysis (Booth et al. 1993).

literature (Nicholson 2002). A minuscule sample of the important works from this literature includes Ellsberg (1963), Russett (1963), Bueno de Mesquita (1983 and 1985), Bueno de Mesquita and Lalman (1992), Martin (1992) and Brams (1994).

There are various benefits of using this approach. The strategic approach "coupled with its explicit logic, transparency in assumptions, and reasoning and propositions has led to substantial progress in knowledge." Most importantly, using game-theoretic approaches to international problems increased our understanding of substantive issues such as deterrence, alliance formation, international cooperation and economic sanctions, democratic peace and conflict initiation, escalation and termination (Bueno de Mesquita 2002, 382).

Likewise, a handful of international relations theories used a combination of game theory and expected utility theory. One of the pioneers of this literature is Bruce Bueno de Mesquita. In *War Trap* (1983), he develops a marginal utility theory of initiating wars. His works in this particular field of study include *Forecasting Political Events: The Future of Hong Kong* (1985); *European Community Decision Making: Models, Applications, and Comparisons* (1994); and *Predicting Politics* (2002). Bueno de Mesquita uses the expected utility model (EUM) to forecast the future of various international issues, ranging from the Chinese control over Hong Kong to prospects for democratization of Russia and the bargaining on taxing emissions in the EU.

The EUM has become more accepted among international relations scholars in the last decade, as its predictive power is supported by empirical evidence. In a special edition of *International Interactions,* edited by Kugler and Feng (1997), the

37

model was used by leading international relations scholars on issues such as Russian political succession (Abdollahian and Kugler 1997), Quebec's economic and political future (James and Lusztig 1997), NAFTA's approval and implementation (Fuchs, Kugler and Pachon 1997), economic reform in China (Feng 1997), the status of Jerusalem (Organski and Lust-Okar 1997), and the settlement in Bosnia (Friedman and Gizelis1997).

This approach (i.e. the conflict approach to IR) has also proved to be more successful in making accurate predictions than some other approaches (e.g. Frans Stokman's cooperation approach) in explaining the European Community's decision-making procedures (Bueno de Mesquita and Stokman 1994). There has been a growing interest in applying this model to the EU's legislative decision-making that was articulated in *European Union Politics* journal's special issue edited by Stokman and Thomson (2004). The conclusion of the volume suggests that the overall testing of the models has shown that bargaining models (i.e. Bueno de Mesquita's conflict and Stokman's cooperation models) do much better than procedural models in generating accurate predictions of EU policy outcomes (Stokman and Thomson 2004).

Due to its proven success in making predictions in the literature, to analyze the energy security policies of the EU and US, I take the perspective outlined by Bueno de Mesquita in *European Community Decision Making* (1994) and *Predicting Politics* (2002) that individual decision-makers consider domestic and international repercussions they can expect to follow from their actions. This approach to understanding future policy decisions implies " to identify tools that shed light on

individual incentives and on strategic maneuvers designed to alter or operate within those incentives, taking institutional constraints into account as appropriate" (Bueno de Mesquita 2002, 8). The theory states that the international system is shaped by the actors who act strategically in their relations to each other. The advantage of using this approach is that it allows taking into account both the domestic factors (e.g. political or economic actors, firms, public opinion, business and interest groups) and systemic pressures (e.g. bipolarity and multipolarity, a balance of power or preponderance of power in the hands of few, liberal or authoritarian rules and norms) that decision makers face in everyday foreign policy-making.

This approach also offers other advantages in analyzing energy security policies of nations or supranational bodies, such as the EU. It allows the researcher to test counterfactual views of foreign policy making. In future research, an expanded version of this dissertation will test alternative rational strategic paths and alternative systemic scenarios to predict under what conditions the EU or US can secure their energy supplies. By using the EUM, for example, I will be able to make predictions about the EU's energy security under multilateralist and unilateralist systemic possibilities. Second, game theory is specifically designed to address the logic of strategic action. That is, it captures the essence of international relations in which the actors take into account how other parties will respond to their actions. Interdependencies between states, events, individual choices and strategic maneuvering are the characteristics of energy security issues, as well as many other foreign policy decisions. Therefore, this theory is particularly well-fit to the subject matter at hand. Lastly, the literature shows that game-theoretic analyses have enjoyed

considerable success in the areas of explanation and prediction (Ray and Russett 1996; Bueno de Mesquita 2002).

2.5.2 Theoretical Foundations of the Model

The model uses Black's (1958) median voter theorem and Bank's (1990) theorem of the monotonicity between certain expectations in asymmetric information games (where a player has some information other players do not have) and the escalation of political disputes (Bueno de Mesquita 2002). These theorems are the fundamentals of the quasi-dynamic political model Bueno de Mesquita developed. They also facilitate the analysis of the players' decisions, such as compromise, bargain, exercising power or compel.

The median voter theorem suggests that in a majority voting system, the parties will converge to the views of the median voter in a given political continuum. It is assumed that the issues are uni-dimensional and the farther the outcome is from one's preferred position, the preferences for that outcome will steadily diminish for that player. Although many political activities do not involve voting, Bueno de Mesquita (2002) suggests that the exercise of power by mobilizing political influence is the nonvoting analogue of voting. Bueno de Mesquita's model adds another assumption to the median voter theorem. Black assumed that everyone is free to vote and that they do so according to their preferences. However, in Bueno de Mesquita's model, decisions can be 'coerced', which makes perfect sense when the nature of the international relations is concerned. This means the actors can be compelled or compel others and thus, can shift the median voter outcome. Even without being

compelled, the players can shift their positions to reach a deal (Bueno de Mesquita 2002).

The second basis of the model is derived from Bank's (1990) monotonicity theorem. It provides an understanding of what kinds of debates are expected to produce negotiated settlements and what is expected to lead to more conflicts in the negotiations. The basic premise of the monotonicity theorem entails that in any asymmetric information game, the more a player expects to gain from challenging a rival perspective, the more likely is he to undertake the challenge (Bueno de Mesquita 2002). By including this assumption, the model gains an advantage of accounting for the coerced decisions in spatial analysis.

The model combines the insights of the median voter and monotonicity theorems and allows estimating and simulating the perceptions and expectations of decision makers. The forecaster software creates a game in which actors make proposals to each other in order to influence the others' policy choices. The expected utility calculations of the players give the analyst insights about whether the negotiations will continue, and if so in what direction and at what point the negotiations will end with what kind of outcome.

2.5.3 Assumptions of the Expected Utility Model

Some basic assumptions of the model need to be mentioned at this point. The model assumes that the policy makers try to maximize their expected utility with regards to both policy and personal satisfaction. That is, the policy maker chooses between an alternative policy and personal outcomes. Bueno de Mesquita (2003) asserts that there

41

is a trade-off between policy and personal outcomes for a leader. Changing a policy position to make a deal with an adversary, for instance, might bring satisfactory political outcomes, such as the gains from the positive public image as a deal maker; however, the same move can also bring lower personal gains, i.e. the leader's support from his constituency can decrease due to the concessions given to the rivals to reach the deal. The actors in the game try to maximize their utility with respect to policy and personal satisfaction.

Another assumption is that the players' information consists of what the player knows about the preceding round and expects to happen next. The negotiation rounds run until it is calculated that the cost of continuing negotiations exceeds the anticipated benefit. At this point, the simulation ends. The predicted policy outcome is the position of the median voter in the last round of the negotiations. However, if there are veto players in the game, the outcome is the position of the veto player in the last round. The model does not always predict an agreement: If the players do not converge on an issue, the outcome does not provide an agreement.

2.5.4 Limitations

The model has limitations as well as strengths. One limitation arises from its imprecision in predicting the exact timing of the decisions made. Another problem is that there is no 'objective' data for many of the issues at hand. Because of that, the knowledge of experts about the issues of concern is required (Bueno de Mesquita 2002). Lastly, creating a model to predict complex political events requires

simplification. This does not mean the model is not rigorous; however, it should be

noted that such a model cannot be built without such a simplifying effort.
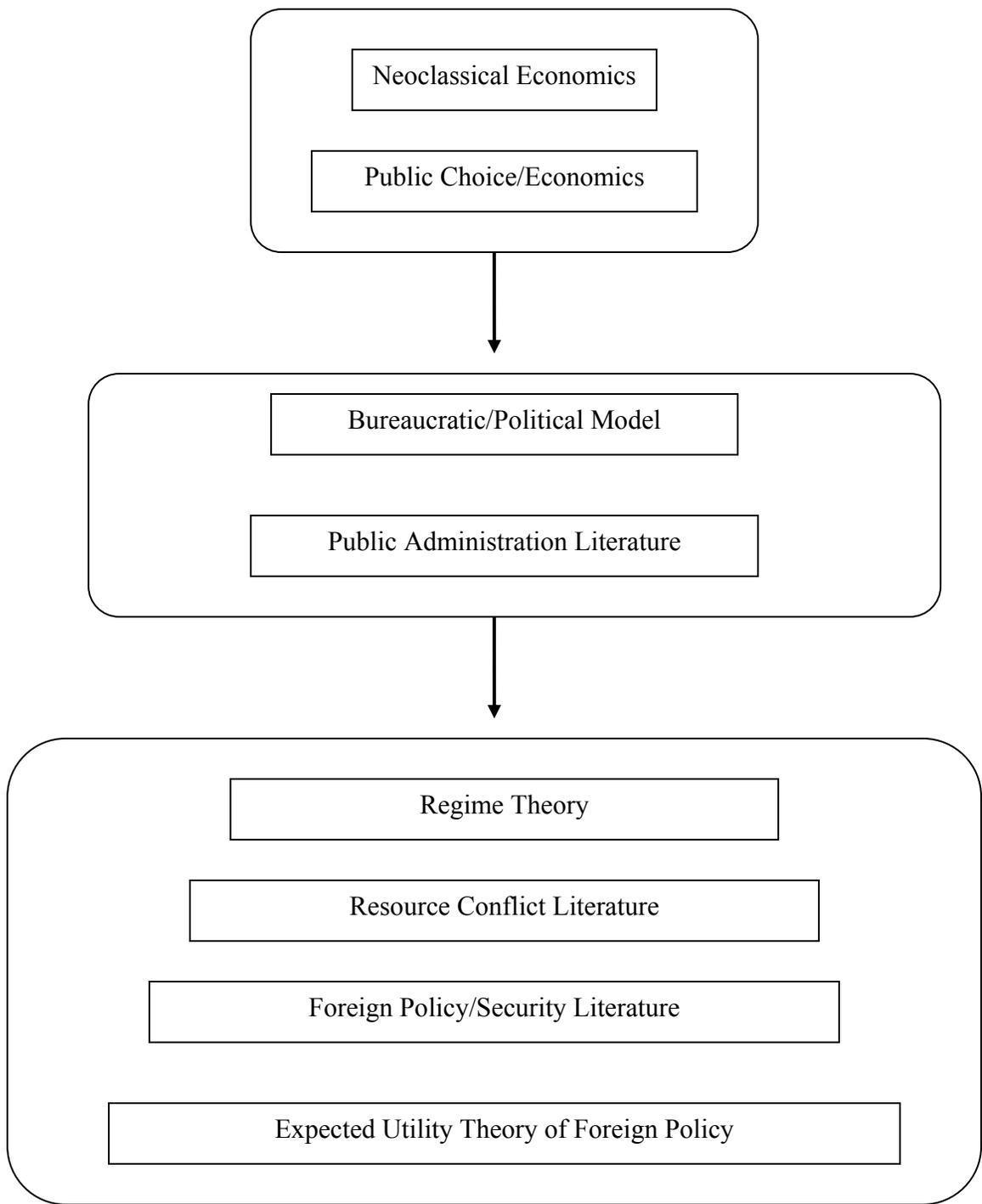
Figure 2-1 Energy Security Theories (from strictly economic to decision making oriented)
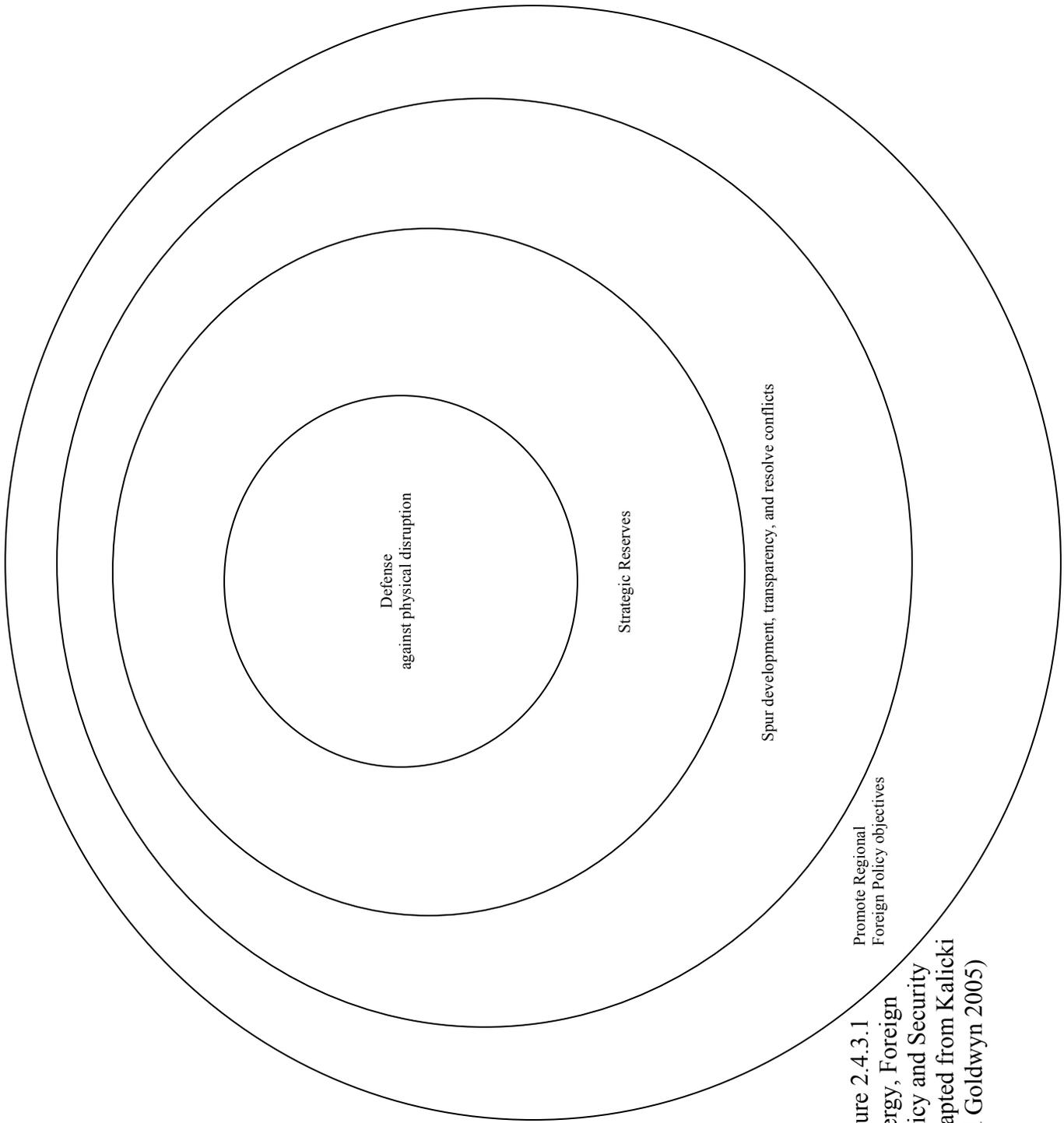
Figure 2.4.3.1
Energy, Foreign
Policy and Security
(adapted from Kalicki
and Goldwyn 2005)
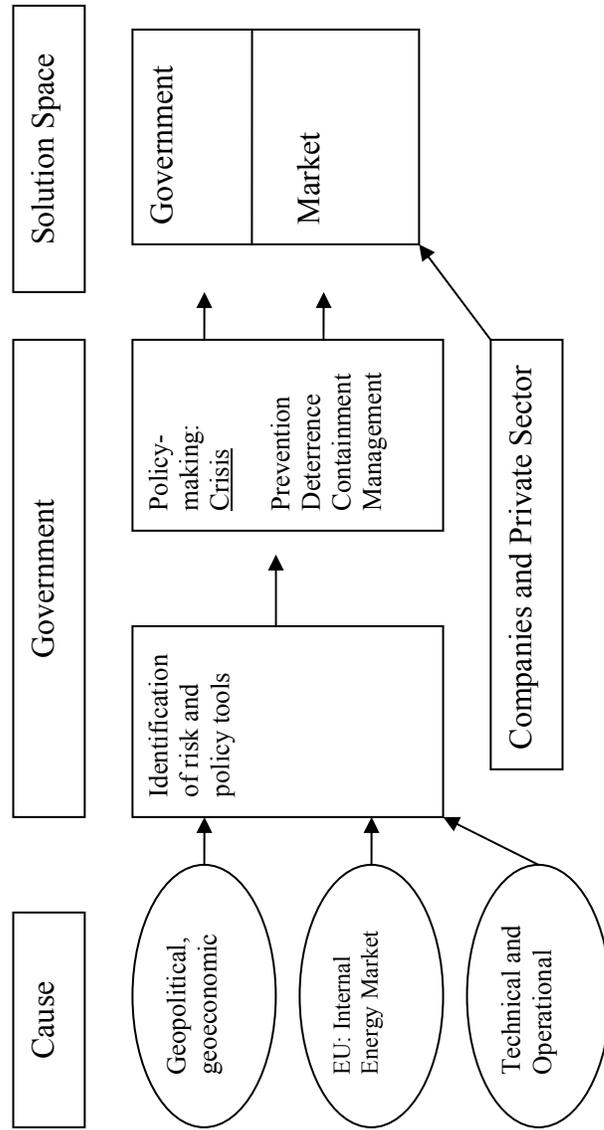
Figure 2-4-3-2 Schematic Representation of policy tools (adapted from Study on Energy, 2004)

Table 2-4-3-3 The European Union's energy security risks and policy
responses

Risk	Policy Tools
Country or Region Stable	Prevention
Country or Region uncertain	Prevention Containment Deterrence
Country or region turmoil	Containment Crisis Management

	Markets	Political Processes, Elite decision making, Domestic actors.	Structural	Foreign or Domestic Issue	Influence (of states)	Tools
Neoclassical Economics	Yes	No	No	Both; more domestic	Very limited	No intervention needed
Public Choice	Yes	Yes	No	Both	Limited	Variety
Regime Theory	No	Yes	Yes	Foreign policy	Large but declining	Variety, both oil and non-oil
Policy/Political Model	Limited	Yes	No	Both	Potentially large	Diplomacy, persuasion
Resource Conflict Lit.	Yes	Yes	Depends on study	Both	Potentially Large	Variety, international cooperation emphasized
Foreign Policy Energy Sec. Connection Lit.	Yes	Yes	Yes	Both	Potentially Large	Variety, mainly foreign policy
Strategic Approach (EUM)	Yes	Yes	Yes	Both; more foreign	Large	Various

Key Variable(s)   Policy Implications

Table 2-4-4-1 Theoretical and policy implications of three models. (Policy implications part is adapted from Wilson (1987)

Figure 2-4-4-1 Figurative Representation of the Theory in the Literature

Energy Security Literature

Expected Utility Theory of Energy
Security

Expected Utility Theory
of Foreign Policy

Foreign Policy
Analysis Literature
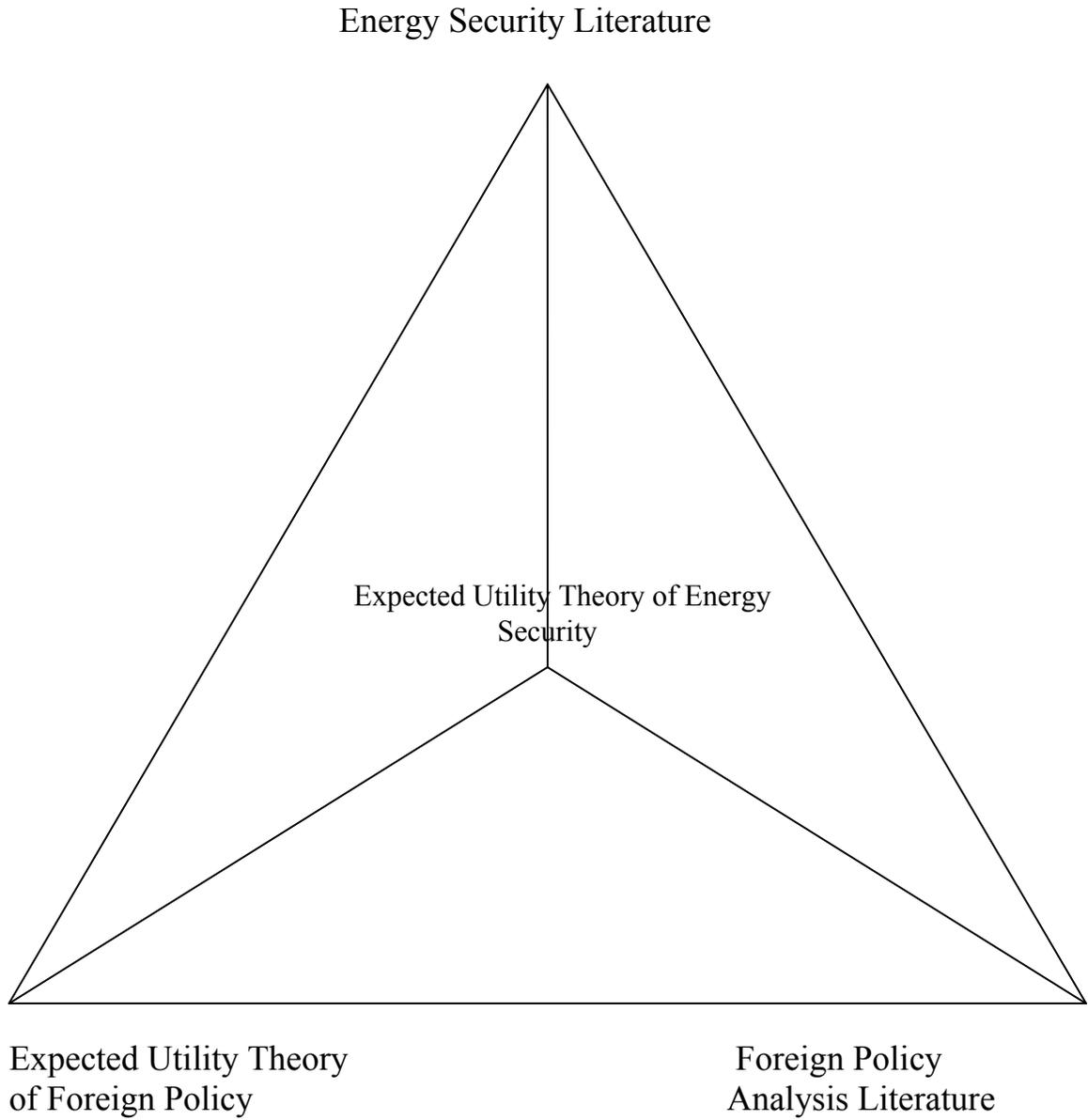
CHAPTER 3
RESEARCH DESIGN CHAPTER

Plan of the Chapter

This chapter begins with an account of the dynamics of the expected utility model (EUM), and is followed by a discussion of three variables employed by it. The third part presents the methodology used. Then, measurement and data, preparation of the questionnaire, inter-coder reliability and the software programs employed are addressed.

3.1 The Model

The model used to analyze the three important international conflicts that have the potential to threaten the EU and US's energy security was developed by Bruce Bueno de Mesquita (1994, 2002 and 2003). This model, sometimes also referred to as the Expected Utility Model (EUM), can be described as a dynamic median voter model with coercion. It is an example of applied modeling designed to analyze real world foreign policy bargaining processes (Bueno de Mesquita 2002).

As discussed in the theory section, this model is based on Black's (1960) median voter theorem and Bank's (1990) monotonicty theorem on expectations and conflict escalation. It forecasts an expected outcome of a policy issue (usually a foreign policy issue) "as a function of competition, confrontation, cooperation and negotiation" (Kugler and Feng 1997, 233). The editors of a special volume of *International Interactions* dedicated to the expected utility model suggest that it is a robust tool for policy analysis. The model is able to delineate possible solutions that

the actors are not aware of by providing the researcher with alternative paths of strategic action that can produce different resolutions of the issue at hand (Kugler and Feng 1997). The model is also used in academic fields of political science, economics and sociology because of its axiomatic foundations and rigorous specifications of the various dimensions of the issue.

The expected utility model has also been a confirmed success in both interstate bargaining issues and EU legislative processes. Bueno de Mesquita and Stokman (1994), in *European Community Decision Making* (1994), employ Bueno de Mesquita's expected utility model (confrontation model) and Stokman's logrolling model (position exchange model) to analyze European Community policy decisions. The overall conclusion of the volume is that the EUM performed better in terms of explaining and predicting the EC decisions. Also, Bueno de Mesquita's model is reported to produce accurate results in 90% of the interstate bargaining situations it analyzed (Bueno de Mesquita 2002). Therefore, this study will use the EUM for the analysis of the three conflicts that concern the EU and US's energy security.

The model defines policy choices as a product of competition between political actors who make policy decisions. In this sense it is a non-cooperative game. The game is constructed in such a way that different actors suggest diverse policy proposals to each other to induce support – or opposition - from other players. Sometimes the actors are powerful enough to make credible proposals and to change other players' positions, sometimes they are not. In such cases the cost of trying to change the others' position may be very costly. It is assumed that the actors, in each round of bargaining, make expected utility calculations.

According to the model's logic, the bargaining rounds continue as long as the players think continuing negotiations is better – or less costly - than giving up. If a player encounters a situation in which continuing negotiations will generate more costly results, maintaining the status-quo appears to be a better alternative than making more proposals to change the other actors' positions. While engaging in bargaining, there are two basic factors that affect decision makers: estimates of the expected utility to be gained from choosing (a) alternative policy proposals, and (b) the policy satisfaction to be gained from making such a deal plus the personal cost of such a political move to the leader as the leaders calculate how reaching such an agreement will affect their reelection or staying in power. Their decision about maintaining the status-quo, or making further policy proposals results in predictable policy decisions for the issues in question or in failure to reach an agreement (Bueno de Mesquita 2003).

3.2 The Three Variables: Capabilities, Policy Position, Salience

The model is a game in which the actors simultaneously make policy proposals to each other to influence the others' decision. Proposals are different points on the policy continuum. Players evaluate other policy proposals and they are assumed to create coalitions by shifting positions on the issue in question. The analysis is carried out by evaluating each round that players are engaged in. The rounds are played sequentially until the issue is resolved, i.e. a player or players shift position, make a deal etc.- or maintaining negotiations becomes more costly than the benefits one can achieve. In each game, each player knows three factors: (1) the

potential influence (capabilities) of each actor on the issue examined; (2) the current

stated policy position of each actor on each issue examined; and (3) the salience each

actor associates with the issues in question. The actors do not know what each actor

associates with alternative outcomes or their perception of risks and opportunities. As

in many international relations games, each actor has his own perceptions about the

other actors and makes his moves based on these perceptions, sometimes in error

(Bueno de Mesquita 2003).

A player's potential influence (capabilities) on the issue depends on how

much power and resources this actor can allow on the issue concerned. If the actors

are nation states, for instance, the power or potential influence of the country on the

issue might not include all of the resources the country has available. It is rather the

pool of resources that a country can allocate to the specific issue. However, if the

issue is related to an international crisis that can lead to a full scale war, then all the

resources of the country might reflect that country's potential influence.

Second, the current stated policy position represents the actors' chosen

position between policy satisfaction and personal security for that actor. Therefore, it

is not the best or most preferred position for the actor nor is it the outcome that the

policy maker expects to achieve. Third, the salience scores show how important the

issue is to the actor. In other words, the players decide how to distribute resources

across issues according to their preference (Bueno de Mesquita 2003).

The current policy statement represents the actor's position on a given

continuum about a policy issue. This continuum can be defined in several ways. One

way would be a continuum of zero to one hundred. The value of one hundred

represents full commitment, zero a total disapproval, and fifty a neutral position about the issue. The capabilities, or the potential influence of an actor in the game, can be measured in different ways: Objective measures like GDP, armed forces personnel, or steel production can be employed; or the indicator can take on a range from zero to hundred, which only reflects the <u>relative</u> political influence of the actors on a given issue.

The salience score indicates how important the particular issue is for the actor compared to other issues. Bueno de Mesquita (2003) suggests that assigning high values of 90-100 for the salience indicates an issue is of utmost importance; 50-60 would mean the issue is one of the several important ones, and 10-20 stands for an issue of minor importance to the actor.[1]

The forecaster program requires these three values to be defined for each actor in order to run an analysis. Bueno de Mesquita (2002 and 2003) suggests drawing on the knowledge of area experts to determine the values.

3.3 Methodology

The expected utility theory developed by Bueno de Mesquita (1985, 1997 and 2002) uses formal modeling as a methodological approach. The software used to analyze the cases makes complex calculations about: 1. "votes"[2] cast by each actor in comparison of alternative policy proposals in each game; 2. the aggregate "votes" comparison between two alternative policy proposals; 3. expected utilities of each

---

[1] Operationalization of the three variables is discussed in detail in Appendix 1, which contains the comprehensive explanation of how to assign values to the three variables. This document was sent to the coders to facilitate their understanding of the variables and increase reliability of the coding.

[2] I use quotation marks when I use the word "votes" because in international bargaining, most of the time there are no actual votes –unless the voting is held in an organization such as the UN. In this text, "votes" are used to describe an exercise of power by mobilizing resources, which is a non-voting analogue of votes in political interaction (Bueno de Mesquita 1997).

actor based on their perceptions of challenging or not challenging alternative proposals; 4. a general estimation of the model based on the subjective probability of success for each actor i in comparison with j's proposal.

A comprehensive explanation for all equations that the model employs is a vast undertaking, beyond the scope of this exposition. Due to space constraints, I refer the interested reader to Bueno de Mesquita (1985, 1997 and 2002) for detailed accounts of the calculations of the model. However, I will elaborate on the two key equations in order to provide an idea of how the "votes" are calculated. This is very important because all other calculations are based on the "votes" cast by the actors.

When alternative proposals are pitted against each other,[3] each group of has a total number of potential "votes" equal to its capabilities. So the "votes" cast by an actor i in comparison of alternatives x_j and x_k equal to:

$$(v^{jk}_{ia} \mid x_j, x_k) = (c_i)\,(s_i)\,(u^i x_j - u^i x_k)$$
(1)

So, the vote or influence mobilized by actor i in comparison between two alternatives (x_j and x_k) is equal to the potential capabilities of the actor i [i.e. (c_i)], discounted by the salience the actor i attach to the issue [i.e. (s_i)] and by how much actor i prefers one proposal to the alternative [i.e. $(u^i x_j - u^i x_k)$].

The expectation that a proposal will succeed is assumed to depend on how much support that proposal can garner from the actors in comparison with other

_____

[3] For example, take the issue in Chapter four. Alternative proposals on Iranian nuclear program are: 1. Pro-Iranian position (continue enriching uranium); 2. Moderate, Russian, position; 3. IAEA position and 4. Israeli position.

proposals. The model calculates this as sum of "votes" across all actors in an

evaluation between x_j and x_k. This equals to:

$$v^{jk} = \sum_{i=1}^{n} v^{jk} \quad (2)$$

If this summation is greater than zero, one can infer that x_j defeats x_k because

the coalition for x_j is more powerful and motivated than the coalition for the x_k

proposal. If it is less than zero, then x_k is likely to defeat x_j. If the summation equals

zero, then stakeholders' "interests are collectively indifferent between the two

alternatives" (Bueno de Mesquita 1997: 240).

3.4 Measurement and Data

There are a small number of dissertation theses that have used similar or

identical theory and methods. I have examined one that was supervised by Frans N.

Stokman of the University of Groningen. Javier Arregui's dissertation, *Negotiation in

Legislative Decision-Making in the European Union* (2004),[4] is used as a model for

research design purposes.

The next section will discuss case selection, selection of the area experts,

specification of the actors involved, and the operationalization of the three variables.

---

[4] Arregui's dissertation was supervised by Frans Stokman and Robert R. Thomson and read by Bruce
Bueno de Mesquita. I have chosen this dissertation's research design section as a model since it was
guided by the developers and promoters of this research agenda.

3.4.1 Selection of the issues

Three cases that examined in this dissertation. These are the Iranian nuclear program, the Azerbaijan-Armenia conflict over the Nagorno-Karabakh region, and the Georgia-Russia conflict over the South Ossetia region of Georgia. My case selection depends on two criteria that are strictly related to the energy security policies of the EU and US. These are: 1) The volume of a disruption to the supply of energy, and 2) The influence of the crises on diversity of supply. That is, the economies of the EU and US will be most harmed if: 1) political factors (such as domestic turmoil or interstate war) disrupt a producer country with a substantial volume of supply to the global energy markets, 2) political factors disrupt the production and transportation of energy resources that provide diversity of supply to the EU and US.

Iran has the second largest oil and gas reserves in the world. Iran was the fourth largest producer of oil and sixth largest producer of natural gas in the world in 2005. It is also the second largest oil producer in OPEC, with an output of 4 mbbl/d[5] (BP Statistical Review of World Energy 2006). Its current oil production is estimated to be the fourth largest in the world, with more than 4 mbbl/d or about 5 percent of total global daily production. Given the scarcity of spare capacity in the global oil markets, which is estimated to be only one and a half mbbl/d, a disruption in Iran's supply can cause extreme reactions in the markets and are discussed in chapter 4. Since the other three larger producers –Saudi Arabia, Russia and the US- are relatively more stable, Iran is the least stable country among the largest oil and gas producers.

---

[5] Million barrels per day.

About 90 years ago Winston Churchill said that the key to oil supply security is diversity and diversity alone (Yergin 2005). The most relevant criterion for energy security of the EU and US is the diversity of the supply. As will be discussed in chapters 5 and 6, Caspian energy developments are perceived as a great opportunity for the EU and US to diversify their energy supplies. The Baku-Tbilisi-Ceyhan pipeline -which will carry Azeri oil from the Caspian to the Southern Turkish port of Ceyhan- is hoped to provide one of the few diversity options that passes through countries that are relatively 'friendly' to the EU and US, i.e. Azerbaijan, Georgia, and Turkey. Any political instability in the region that the pipeline passes through is a security risk and should be prevented by diplomacy and military means. The southern Caucasus is such a problematic region: there are seven conflict regions around the BTC pipeline. I have selected the two political conflicts, Nagorno-Karabakh and South Ossetia, which are geographically closest to the BTC pipeline, 15 km and 55 km respectively.

The three issue questions that were asked to the area experts in the questionnaires are as follows:

Issue 1: What are the attitudes of stakeholders toward Iran's uranium enrichment?

Issue 2: What are the attitudes of stakeholders toward autonomy in Nagorno-Karabakh?

Issue 3: What are the attitudes of stakeholders toward autonomy in South Ossetia?

3.4.2 Selection of the area experts

The model's calculations and the accuracy of its predictions depend on the area

experts' knowledge and the reliability of their coding. Expert estimations and coding

for this model are generally regarded as authoritative and solid (Bueno de Mesquita

2003). These experts are the primary source of information on the issues at hand since

they have studied these countries and the political conflicts they are involved in for a

long time. That is, they possess first hand information on the relative policy positions

of the actors involved in bargaining, the salience they attach to the issues and their

capabilities relative to each other (Arregui 2004).

The first area expert who coded data for this project is Dr. Mark Gasiorowski

from the Louisiana State University. Dr. Gasiorowski has studied Iran for about 25

years. He is one of the leading experts on Iran and has written various books and

articles on the country. He served as a consultant for the US government on Iran[6] and

he has taught at the Tehran University. Dr. Gasiorowski coded the three variables

that the EUM uses on the Iranian Nuclear Program issue.

The second expert that coded data is Dr. Oktay F. Tanrısever of the Middle

East Technical University in Ankara, Turkey. He received his PhD from the School

of Slavonic and East European Studies, University of London. His research interests

are Russian politics and foreign policy, regional politics in the Caucasus,

state-building and nation-building in the Post-Soviet space, and the politics of

nationalism and ethnicity. Combined with his various publications on the Caucasus

---

[6] Statement of Mark Gasiorowski to the National Commission on Terrorist Attacks upon the United States: "Iranian Support for Terrorism". July 9, 2003

region, Dr. Tanrısever's knowledge on the region made him an excellent choice of area expert for the Nagorno-Karabakh and South Ossetia issues.

Finally, Balkan Devlen, a graduate student in the Department of Political Science at the University of Missouri-Columbia coded the three issues for inter-coder reliability concerns. Mr. Devlen specializes in foreign policy analysis and his area focuses are the Balkans and the Eurasia region.

I have evaluated each expert's coding. All three codings were in line with what I have studied about the region. Also, the experts were contacted whenever necessary to support their numerical assignments of values with qualitative arguments. That is, after they completed the coding, they were asked various questions such as: Why they include actor A but not actor B? Why actor C's position is different from its stated position? Why did actor A, B and C perceive the issue as more important than the others?

3.4.3 Specifying actors involved in the bargaining

After selecting the cases, I conducted extensive research on the conflicts at hand. Grounded in this research, I identified all the relevant actors that might have a stake in the issue. These actors were included in the questionnaire. However, since the area experts are the ones who have the final say on coding, they were given the following instruction in the questionnaire:

> To facilitate the coding processes, I have included the following actors who might have a stake in the bargaining processes. **Please feel free to add and subtract actors.** For example if any actor below have no relevance, please simply delete it, or leave data cells blank for the actor.

60

To give a couple of examples, Dr. Gasiorowski subtracted some actors such as the former Iranian President Khatemi because he has no effective influence on the issue anymore. Another example was that Mr. Devlen chose to exclude British Petroleum as an actor from the bargaining in the coding on Nagorno-Karabakh issue on the grounds that the company's position is already represented by United States.

3.4.4 Definition and operationalization of the variables

Definitions of the variables have been made in section 3.2. A thorough account of what exactly these variables measure and how they were coded are explained in Appendix 1, "Operationalization of the Variables."[7] To avoid repetition, details of the definitions and operationalization of the variables will not be discussed here. I refer the interested reader to section 3.2 and Appendix 1. In the next section of the chapter, I will provide some particular information regarding the specification of the positions, salience, and capabilities of the actors.

3.4.4.1 Specifying policy positions

The accurate predictions by the expected utility model depend on pinpointing the positions of the actors relative to each other at the time the coding was carried out. Therefore, the area experts were asked to code the "present" bargaining positions of the actors at the time of coding. Hence, the values assigned to the three variables represent the actors' position on the last week of December 2005.

---

[7] The experts received this document with the questionnaires.

The area experts were asked to code policy position on a continuum from 0 to 100 by considering the bargaining stance of the actor that does not necessarily represent that actor's preferred position. In some cases, the coder stated some actors that look like being involved in the bargaining have little or no interest or preference on the issue. These actors were excluded from the analysis.

In some cases, the expert coded policy position and salience for the actor but (0) for the capabilities value. In these cases, those actors were also excluded from the analysis because mathematically their "vote" is nil. Dr. Gasiorowski coded (0) for the power of Turkey, Iranian Guard Council and Revolutionary Guard. These actors were excluded from the analysis.

Another point about the coding is that among two or more actors who share the same policy position and capabilities, only one of them is included in the analysis so as not to inflate their influence on the bargaining. To give an example, Ali Larijani is the secretary of the Supreme National Security Council of Iran. He is one of the two representatives of Supreme Leader Khamanei on the Council and also the chief negotiator on the Iranian nuclear program issue. Larjani represents the Iranian Supreme Leader's view on the issue and has no effective capabilities and his policy position is the same as that of the Supreme Leader. Hence, in order not to inflate the Supreme Leader's position, Ali Larijani was excluded from the analysis as an actor even though he is actively engaged in the bargaining process.

3.4.4.2 Specifying salience

Area experts were asked to code the level of importance that each actor associates with the issue. The coders were informed that the salience variable can have two

meanings (Arregui 2004). First, it is the share of total political influence that the actor prefers to apply on the issue. Second, "salience can be viewed as the extent to which actors experience utility loss from the policy outcomes that differ from the decision outcomes to which they give preference. When actors attach a high level of salience to the issue, they are considerably sensitive to small deviations from their most preferred policy alternatives" (Arregui 2004, 20).

The experts were asked to code salience for each actor on a continuum from (0) to (100). A salience score of (0) means no importance to the actor while (100) means utmost importance. A score of (50) means the issue is one of several important issues. A more detailed explanation of the salience score scale can be found in Appendix 1.

As noted earlier, the coders were asked to justify their numeric estimations with qualitative arguments.

3.4.4.3 Specifying capabilities

There are two ways to measure the relative capabilities of actors in the game. First, one could use the objective power measures from the Correlates of War (COW)[8] National Material Capabilities (v3.02) dataset (Singer et al. 1972) or the Shapley and Shubik Index for the EU's capabilities. The problem with using this kind of data is that it only contains the capabilities of nation states. The expected utility model, however, is capable of including many other types of actors that are involved in the bargaining processes. For example, different political actors in a polity can be divided on an international policy issue. For example, during the Kosovo air campaign in

---

[8] Correlates of War project was established by David Singer in 1963 to accumulate systematic scientific knowledge about wars.

1999, President Clinton and the Congress were divided on the issue. A study that focuses on the future of Kosovo coded President Clinton and Congress separately (Bueno de Mesquita 1999). Datasets like COW does not contain capability variables for non-state actors.

Therefore I had to rely on the second method of measuring power that Stokman (1994 and 2004) reported to be highly dependable. That is, the area experts were asked to code the relative capabilities of actors involved in bargaining on a continuum from (0) to (100). In fact, coding the capabilities of actors based on expert judgment can be even more reliable in some cases where informal resources that actors have and use (such as intelligence, efficiency, experienced bureaucracy, financial resources or access to other resources) play a role (Arregui 2004).

After the coding was completed, the experts were asked to justify their decisions qualitatively.

3.5 Questionnaires

The questionnaires that area experts received are based on the instructions and explanations stated in James and Lusztig (1997), Stokman and Thomson (2004) and Arregui (2004).

The questionnaires consisted of two major parts. The first part includes a synopsis of the issue at hand as well as the stated positions of the actors. The second part begins with the statement of the issue question. This is followed by three steps that the coders followed to complete the coding. In Step 1, the coder was asked to fill in the policy position scale where specific positions on the policy continuum and their

meanings are stated. In Step 2, the coders were asked to identify all the actors involved in the bargaining processes. In Step 3, the experts were asked to assign numeric values, ranging from (0) to (100), for the three variables in each actor's row. In each questionnaire, the experts were specifically reminded of the following: "Please note there may be more than one actor with resources, salience and position equal to 100."

Questionnaires for the three issues can be found in Appendix 2.

3.6 Reliability

For inter-coder reliability purposes, a University of Missouri-Columbia Department of Political Science graduate student, Balkan Devlen was asked to provide coding for the three issues. Mr. Devlen's coding was run with the online software. The results did not differ from the simulations conducted with the data from the two senior area experts. That is, the simulations run with the data coded by Mr. Devlen produced the same results that are pro-Iranian (i.e. Chapter 4), pro-Azeri and pro-American (i.e. Chapter 5) and pro-Russian (i.e. Chapter 6).

3.7 Software Programs Used

The expected utility software is copyrighted. The data for the analysis was run by Dr. Bruce Bueno de Mesquita in January 2006. Output files were sent to me that same month. All other texts, tables, figures and graphics were produced and calculations were made with Microsoft Office Word 2003, Microsoft Office Excel 2003 and Microsoft Office Access 2003 database programs.

CHAPTER 4

IRAN AND GLOBAL ENERGY SECURITY

Plan of the Chapter

This chapter analyzes the future of Iranian nuclear crisis and its effects on
international energy markets. Section one presents a brief discussion of why Iran is
important for energy markets stability. Section two discusses the history of the
conflict and the EU's diplomatic efforts to solve the crisis in 2005. Section three
includes information about the expert generated data, presents a discussion of
positions of the actors on the issue, power distribution among the actors and statistical
information about the simulations. Section four presents a discussion of the results,
position shifts of the major actors during the simulation and perception and stability
analysis of the simulation. Section five discusses the future of the conflict based on
the simulation and analysis in this chapter.

4.1 Introduction

Iran's vast oil and gas resources are very important for the security of the
energy supply to the EU and the rest of the world. Two reasons that make Iran's role
so vital for global energy security: the volume of its resources and production, and its
geographical position in the center of energy transport routes.

Iran holds the second largest oil reserves (after Saudi Arabia with 11.4% of
total), as well as gas reserves (after Russia with 15.2% of total) in the world. In 2003,
Iran was the fifth largest producer of oil and sixth of natural gas in the world (BP

Statistical Review of World Energy 2003). It also is the second largest oil producer in

OPEC with an output quota of 3.18 mbbl/d (million barrels per day) (Study on

Energy Supply, 2004). Its current production is estimated to be at 3.8 mbbl/d (about

5% of the world production). and there is more oil and gas potential that has not been

revealed.

Second, many see Iran as the most attractive route for the Caspian oil and gas.

It also has the potential to supply oil and gas to the Central and Eastern Asian

countries. It even controls the Hormuz Strait and thus the transportation route for a

substantial amount of Middle Eastern oil resources.

Using force or imposing sanctions can seriously threaten global oil and gas

prices. According to a recent study by the Center for Global Energy Studies, crude oil

prices could hit 100 dollars per barrel if sanctions are imposed on Iran due to tight

demand-supply balance in the oil markets (Tait 2006). Another study does not rule

out prices as high as 130 dollar per barrel in the case of sanctions against Iran (Isidore

2006). Being aware of these circumstances, some Iranian clerics recently threatened

to use the oil weapon should the UNSC sanction Iraq.

4.2 Background

4.2.1 Early History of the Iranian Quest for Nuclear Energy

Iran's pursuit for gaining nuclear capability goes as far back as to the 1960s. In fact,

the United States was the first country to help Iran gain nuclear technology. It

supplied a 5-megawatt research reactor to Iran that began operation in 1967. Iran

signed the nuclear non-proliferation treaty (NPT) in 1968 and ratified it in 1970 (IAEA 2006).

The Iranian nuclear program was ambitious since its beginning. Oil prices soared especially after the 1973 Arab-Israeli war, which allowed the Iranian government to invest more in nuclear energy development. By the mid-1970s, Iran aimed to reach a capacity of producing 23,000 megawatts of electrical power in the following two decades (Benedict 2005).

Under Shah Muhammed Pahlavi's administration, the Iranian government made deals with German and French contractors. Kraftwerk Union (a subsidiary of Siemens) of Germany agreed to build two 1,200 megawatt nuclear reactors at Bushehr, and a French company agreed to supply two 900 megawatt reactors. The Massachusetts Institute of Technology (MIT) also signed a contract with the Atomic Energy Organization of Iran (AEOI) to train the first cadre of Iranian nuclear scientists in 1975. The domestic nuclear cycle of Iran included an advanced nuclear research center and advancement of research to develop uranium mining and ore processing (Sahimi 2003).

The United States also supported Iran's plans for building a nuclear energy capacity. According to declassified confidential US government documents[1], the Shah's government planned to purchase eight nuclear reactors from the US for electricity generating purposes. In July 1978, only seven months before the Islamic Revolution in Iran, the final draft of the US-Iranian Nuclear Energy Agreement was

---

[1] National Security Study Memorandum 219, US-Iran Agreement on Cooperation in Civil Uses of Atomic Energy (March 14, 1975); National Security Decision Memorandum 292, US-Iran Nuclear Cooperation (April 22, 1975); National Security Decision Memorandum 324, Negotiation of a Nuclear Agreement with Iran (April 20, 1976); National Security Study Memorandum 238, U.S Policy Toward the Persian Gulf (February 13, 1976).

signed. This agreement was designed to facilitate Iranian-American nuclear

cooperation that included Iran's purchase of equipment and material from the US and

acquiring help to search for uranium deposits (Sahimi 2003).

The political upheaval preceding and following the Islamic revolution gave a

halt to the Iranian nuclear program. By 1979, a nuclear reactor, Bushehr 1, was 90%

complete and 60% of its equipment was installed; Bushehr 2 was 50% complete. The

first prime minister after the revolution, Mehdi Bazargan, concluded Iran did not need

nuclear energy and discontinued the project at Bushehr (Sahimi 2003). It did not seem

likely that the German firm would continue completing the site, even if PM Bazargan

pushed for it - due to security reasons they left the country immediately after the

revolution.

The second factor that prevented Iran from developing nuclear capacity earlier

was the Iran-Iraq War of 1980-1988. During the war, Iraq bombed Iran's nuclear

reactors and research centers. Iraqi forces hit the two reactors being built in Bushehr

six times.

With the end of the war, Iran's young population and therefore its need for electricity

significantly expanded. This led President Hashemi Rafsanjani's government to

review the nuclear energy policy and continue with the quest for nuclear energy

development projects (Sahimi 2003).

Rafsanjani's government first attempted to make a new deal with the

Kraftwerk Union in order to complete the Bushehr reactors. However, given the

hostile relationships between the Iranian government and the US, the latter pressured

the German firm not to finish the reactors (Chubin 2002).

Consequently, Iran asked the German government to allow Kraftwerk Union to ship reactor pieces and technical documentation that Iran had already paid for. When this request was turned down, as well, Iran appealed to the International Criminal Court in 1996 for 5.4 billion dollars in compensation.   The court has not ruled the issue as of yet (Sahimi 2003).

Germany was not the only country considered by Iran to supply the missing pieces of the reactor at Bushehr. In the late 1980s, a consortium of companies from Argentina, Germany and Spain submitted a proposal to the Iranians to complete Bushehr 1. In 1990, the Spanish National Institute of Industry and Nuclear Equipment considered completing Bushehr 1. Iran's attempts to get the missing parts for the reactor from Italian, Czech and Polish companies and the two previous attempts mentioned above were all prevented by the United States (Sahimi 2003).

After all these unsuccessful attempts to acquire the necessary technology from European dealers and Argentina, Iran finally signed agreements with the Soviet Union (later Russia) and China in the early 1990s. The 1990 agreement with the USSR to complete the Bushehr 1 was not realized due to financial difficulties in Iran. In 1991, China provided Iran with different amounts of uranium compounds that are used to enrich uranium (Cordesman 2005).

In 1995, the most honored of the Iranian-Russian agreements were made. This included finishing the reactors at Bushehr, which will be under supervision of IAEA safeguards and will be capable of producing a maximum of 180 kg of plutonium in their spent fuel per year. According to the agreement, the Bushehr 1 was supposed to be finished by 1999, but it still has not been completed. IAEA predicts unit 1 at

Bushehr will reach its first criticality in 2006 (Cordesman 2005). The agreement also included that Russia would provide a 30-50 megawatt thermal light-water research reactor, 2,000 tons of natural uranium and the training of fifteen Iranian nuclear scientists per year by the Russians. Iran and Russia also started negotiations regarding the construction of a gas centrifuge uranium-enrichment facility in Iran. The US intervened and announced that it had convinced Russia not to supply uranium enrichment facilities to Iran. The US also tried to convince Russia not to honor its 1995 agreement with Iran, but was not successful. Currently, it is estimated that some 600-1,000 Russians are working on the project and some 750 Iranians trained by Russians will take their place as the sites are completed (Cordesman 2005).

A point of interest is that the completion of the Bushehr reactors by Russia is an immensely complex task. Back in the 1970s, the Kraftwerk Union did not provide any technical documents as to the installment of the reactors with Iran. Therefore, it is difficult for Russian firms to install the reactors. The Russian and German reactors significantly differ in technology, which makes the job for the Russians even more difficult. The Iranian nuclear program is highly dependent on foreign technology transfer, and it seems like it will be this way in the near future (Chubin 2002).

4.2.2 The Current Crisis

The current crisis began in August 2002. An Iranian exile opposition group, the National Council of Resistance, accused Tehran of hiding a uranium enrichment facility at Natanz and a heavy water plant at Arak. The existence of the sites was confirmed by satellite photographs. This was followed by Iran's announcement that

its nuclear program has peaceful aims and that it would allow IAEA inspections (RFE/RL 2005).

In November 2003, Iran suspended its nuclear program and announced it would allow tougher IAEA inspections. IAEA concluded that there was no evidence for Iran's nuclear program. The United States insists that Iran's nuclear program ultimately aims to produce nuclear weapons. The Iranian nuclear program casts serious doubts due to the fact that the country already possesses enormous fossil fuel reserves and does not necessarily need nuclear energy in the short and middle terms.

In October 2003, France, Germany and the UK (the EU3) foreign ministers visited Iran. The ministers asked Iran to stop enriching uranium and suggested Iran should sign an additional protocol to the NPT and provide full cooperation with the IAEA. The EU3 offered economic concessions to Iran if these conditions were met. The rest of the world, including the United States, supported the EU3 initiative and a diplomatic solution to the problem.

More specifically, the EU3 offered Iran the following incentives:

1. Granting Iran access to the international nuclear technologies market where Iran was barred with certain controls;

2. a EU-Iran Trade and Cooperation Agreement and a Political Dialogue Agreement;

3. an assurance to supply nuclear fuel from Russia for Iranian nuclear facilities;

4. supporting the Iranian civilian nuclear program and negotiations between Iran and EURATOM;

5. supporting Iran's regional security building arrangements, and

6. continuing support for Iran's accession to the WTO (Ingram 2005).

In return for these rather vague incentives, the EU3 demanded specific actions from the Iranians.

1. Iran should make a binding commitment not to pursue fuel cycle activities other than light water reactors and research plants where it is almost impossible to develop weapon grade material. This meant Iran would produce no uranium enrichment or conversion, no fuel reprocessing and the shutting down of the heavy water reactor at Arak. The EU3 recognized this would mean a huge loss of capital investment for Iran and therefore promised to establish a group to find out alternative uses of these facilities.

2. The EU3 demanded Iran to comply with all IAEA inspections, and the resolution of all the problems rose under Iran's safeguard agreement and the Additional Protocol.

3. Iran should ratify the Additional Protocol by 2005 and fully comply with its conditions.

4. Iran should agree to arrangements that nuclear fuel supplies should be provided from international sellers and be returned to the suppliers after suing them;

5. strict national exports control under UN Security Council 1540,and

6. legally binding assurance that Iran will never leave the NPT (Ingram 2005).

In August 2005, Iran rejected the EU3 proposal and the talks were stopped. In the fall of 2005, Iran has resumed uranium conversion at its Isfahan plant, and an IAEA resolution declared Iran in violation of the nuclear non-proliferation treaty. As of

early December 2005 when the coding for this study was completed by area experts,

the talks between the EU3 and Iran had not resumed and the latter was reportedly

continuing its nuclear program.

In January 2006, Iran broke the IAEA seals in its Natanz nuclear facility and

IAEA referred Iran to the UN Security Council over its nuclear activities. Iran also

declared that it resumed its uranium conversion at Natanz. On March 30th 2006, the

UNSC, not both warned Iran and demanded it should suspend uranium enrichment

within thirty days (BBC News Website 2006).

4.3 Analysis with the Expected Utility Model

4.3.1 Expert-Generated Data

Two experts, one specializing on Iran for more than two decades and the other

focusing on Middle Eastern politics, independently produced the coding of actors,

positions, capabilities and issue salience scores for the Iranian nuclear crisis issue.

The coding took place in December 2005. The experts received detailed instructions

are explained in the research design section of this dissertation. Also, the actual

instructions the coders received can be found in the appendix. The coding by the

senior analyst is as follows:

(Table 4-3-1-1 about here)

4.3.2 Positions of the Actors

Various Iranian and international actors with diverse policy positions are involved in

this issue: The IAEA declared that the real aims of the Iranian nuclear program are

ambiguous. The United States administration has repeatedly suggested referring the issue to the UN Security Council and initiating economic sanctions against Iran. Israel seems to agree with the US position for the time being. However, Israel also suggested using the military option to disable Iran's nuclear program. There are some serious difficulties associated with this approach. Learning from Iraq's mistakes[2], Iran successfully dispersed the sites where it conducts nuclear research. Therefore, there are many sites that Israel would have to bomb. That makes it is difficult to destroy these nuclear research reactors at once, without the risk of being harmed by the Iranian air force. Also, geography creates a problem. Israel can attack Iran only by using Iraqi or Turkish airspace. The United States does not seem to favor allowing Israeli air force to use Iraqi airspace for fear of further Shiite uprising in Iraq. Turkey on the other hand, has a limited military cooperation (a loose alliance) with Israel and would be pushed by the US and Israel to allow its airspace to be used. However, since 1639, Turkish-Iranian relations have been peaceful. Therefore Turkey does not seem to be willing to be directly involved in such an operation.

Russia and China have extensive cooperation and trade with Iran, which effectively eliminates a UNSC decision against this state. Russia declared its determination to continue transferring nuclear technology to Iran, while it also proposed returning the spent nuclear fuel to Russia for reprocessing and storage, so that it cannot be used to produce nuclear weapons. The Russian position is attributed to be the "moderate" one, which would allow the Iranian administration to get a face-saving resolution, while the US and the EU would prevent Iran from achieving

---

[2] Israel bombed Iraq's nuclear reactors in 1981. Iraqi nuclear research was concentrated at one place, at Osirak, which made Israel's destruction of Iraqi nuclear capabilities easier.

nuclear weapons technology. Based on that, the United States and the EU have backed the Russian position since late 2005.

China, on the other hand, maintains a more pro-Iranian position. China supplies its market with Iranian oil and gas. About 13% of Chinese oil imports are from Iran (Study on Energy 2004). Therefore, the stability of Iran is extremely important for Chinese energy security. As an important regional and perhaps a future global power, China projects power on this issue; perhaps it is the biggest obstacle for a UN Security Council resolution against Iran. Chinese officials repeatedly suggested they will veto economic sanctions at the Security Council and are completely opposed to a military solution to the problem. China claims it is in favor of a "diplomatic solution".

The Iranian views on the issue seem to be less divergent. The so-called 'hard-liner' President Ahmedinejad and his administration seem to be more determined to continue the nation's nuclear program than their predecessors, i.e. President Khatemi and his team. President Ahmedinejad is weak at home, and he used the nuclear program as a tool to consolidate his power, i.e. to create a rally-effect for the new government. The Iranian parliament (the Majlis) also supports the continuation of the nuclear program. The parliament matters, because it has some control over the President. However, the most influential leader in the Islamic Republic of Iran is the Supreme Leader Khamanei. He is the ultimate deal broker in the country's political system. He has been in favor of the nuclear program and his policies are the most important and influential ones in the whole bargaining process.

Some other regional actors, such as the Gulf Cooperation Council, also stated that a nuclear Iran could negatively affect the precarious stability in the region. The Gulf Cooperation Council includes Saudi Arabia as the most influential actor of this organization. Saudi Arabia, to maintain a regional balance and stability, has shown some efforts to reconcile the issue between the US and Iran and proved to be capable of maintaining a shuttle diplomacy. Of course, Saudi efforts to find a diplomatic solution to the problem failed like others.

Lastly, India and Pakistan, as the new members of the nuclear club, do not want Iran to acquire nuclear weapons. However, they are not in favor of economic sanctions on Iran, either. Especially Pakistan is alleged to help Iran with its nuclear program. For economic reasons it is in favor of Iran's development of nuclear technology, especially transferred from Pakistan.

Figure 4-3-2-1 represents the Iranian nuclear program issue with the actors associated with it on a linear continuum. The positions' values and actors are determined by the area experts. Only one of the coding results is used here, since the area experts produced fairly similar results (That's why only the coding by the more senior analyst is used in this chapter).

(Figure 4-3-2-1 about here)

The values on the continuum represent the full range of positions and outcomes on the issues. On the left hand side, Israel's position is the total dissolution of the Iranian nuclear program, e.g. by a military action. This position has a value of 0. For Israel, Iran's acquisition of nuclear weapons is an existential issue, and the area expert's coding represents this point right on target.

On the opposite side of the continuum, the positions of the Iranian leadership are given. Iran's leadership maintains a fairly united opinion about the nuclear program for different reasons. All three leaders are in favor of the continuation of the Iranian nuclear program as it is. That is, they want the nuclear reactors to be finished by Russia and achieve a full nuclear cycle that can provide uranium enrichment for Iran, which can be used for weapon making. Their position value is attributed to be 100 by the area experts.

The most subscribed position in this bargaining is the so-called moderate position. The moderate position (70) is one and the same with the Russian position. Russia proposed Iran and the international community that it would not stop transferring nuclear technology to Iran, i.e. it would continue building up the reactors in Bushehr and sell nuclear material to Iran. However, to reduce the US' and EU's pressures to halt the cooperation with Iran, it proposed to complete a part of the nuclear cycle at Russia in return for a charge of one billion dollars a year. This way, Iran would continue developing nuclear technology but could not achieve a full nuclear cycle that would allow the production of nuclear weapons. When the EU3 proposal failed, the EU members and the United States had no other chance but to support the Russian proposition. If the latter were agreed upon, Iran could continue its civilian nuclear program without further intervention, Russia would continue selling nuclear technology to Iran and the US, and the EU and the regional actors would be sure Iran's program was at least "controlled" for the time being. Some other regional powers, such as India, Pakistan, Saudi Arabia and the Gulf Cooperation Council also support this proposal.

The positions of China and the International Atomic Energy Association are a little different from the rest of the actors. The Chinese position (85) suggests a pro-Iranian leaning that will certainly prevent any UN Security Council resolution on the issue. China's top priority is the continuation of the oil and gas flow from Iran to its markets. Therefore, China is against any measure that can threaten Iran's stability.

The IAEA's position (60) is the most difficult to determine for the area experts, for the IAEA does not have any official political opinion or preference on issues. The institution's job is technical and it serves as a technical aid to world governments. This leads the IAEA to be extremely careful about publicly revealing its position on the issues discussed; due to their power to carry out inspections, their actions matter in the bargaining processes. The IAEA's position was coded as 60, which indicates their position is slightly stricter than the Russian position. But it is still a moderate position in favor of the reinstallation of full IAEA inspections on Iranian nuclear sites.

Yet, considering these circumstances, I have simulated the IAEA's position ceteris paribus. That is, the data was run with an IAEA position value of 30, 40, 50, 70 and 80, all other values being the same. The end results of the bargaining did not change significantly. The reported results are based on a simulation in which the IAEA position was assigned a value of 60.

4.3.3 Power Distribution

Realist theories of IR suggested that the outcome of international affairs is to a great extent determined by the power distribution in the international system (Waltz

1979). Most basically, the realist literature proposed that the most powerful actors (usually referring to military power) are likely to achieve the policy they favor more easily than the less powerful actors. However, various empirical studies showed that international affairs are not only determined by power. If they were, the superpowers would always achieve whatever they seek.

So, what does this discussion tell us? I argue that the powers of nations and other actors should be discounted by other relevant factors. One of the advantages of using the expected utility model is that the absolute powers of the actors are discounted by the salience they associate with it.

Figure 4-3-3-1 shows the absolute power distribution of the actors in this subsystem. The most influential actors are the Supreme Leader of Iran and the US with each having 18% of the total power, and the IAEA having 12%. The Iranian Government and the Parliament, EU3, Russia and China each bear the same amount of influence that each holding the eight percent of the total power.

(Figure 4-3-3-1 about here)

The salience scores that each actor associates with the issue are presented in Figure 4-3-3-2. Salience scores are important because they discount the absolute power of each actor. Therefore, they allow the analyst to take into account the amount of influence one can have on an issue. In Figure 4-3-3-2, it appears the actor that attached the most salience to the issue is the IAEA. This is of course exactly what one would expect, since the issue is the IAEA's primary concern. The second actor who is most ready to give up other policy issues when the matter at hand comes up is the Iranian Supreme Leader. A salience value of 90 is assigned to the Supreme Leader

Khamanei. For the United States and the EU, this issue is slightly less important than it is for the IAEA and the Supreme Leader of Iran. Each of their salience score is 75.

(Figure 4-3-3-2 about here)

To analyze how the distribution of capabilities affects the bargaining for the Iranian nuclear crisis one should take the discounted power of the actors into account. This can be done by comparing the actors' effective power. To observe the effective powers of the actors, I use an effective power variable that is created as such:

Effective Power = Resources*Salience (1)

Figure 4-3-3-3 shows the effective power distribution in this game. The three most important power centers in this bargaining are the Iranian Supreme Leader, the United States and the IAEA, respectively, followed by Russia, EU3 and the Iranian domestic actors. Considering the dynamics of the current crisis, one can conclude that Supreme Leader Khamanei, the US and the IAEA are truly the most influential actors. A control of the effective power variable confirms the coding was done properly. Note that the Iranian Supreme Leader's absolute power is 18% while effective power is 21%. This is because he associates very high salience with the nuclear program issue compared to the others. The same is true for the IAEA: Although the IAEA has the 12% of the total absolute power in this subsystem, it has sixteen percent of the total effective power due to high salience of the issue to the IAEA. The Chinese case, on the other hand, shows the reverse effect. China has 8% of the total power while its share in the distribution of total effective power is only 5%, because it associates a relatively lower value of salience to the issue.

(Figure 4-3-3-3 about here)

Lastly, let us examine the effective power distribution by position groups. The first group is the biggest one (the moderate group); it is composed of the US, the EU3, the EU Commission, India, Pakistan, Saudi Arabia and the GCC, Russia and the IAEA. The second biggest group is the Iranian position, including the Iranian Supreme Leader, the government, the parliament and also China. Lastly, Israel represents its position as a single actor.

The results show that the group that has the most power is the moderate position group with 55%, while the actors close to the Iranian position represent only the 42% of the total power. A realist account of international politics would expect the moderate group to deter Iran from enriching uranium. However, the strategic interactions between actors result in different conclusions than one would expect by observing the mere power distribution. The more powerful actors do not necessarily have their favorite policy achieved in international politics, as the following discussion will illustrate.

(Figure 4-3-3-4 and 4-3-3-5 about here)

4.3.4 Position Min-Max and Averages

The expected utility analysis for the Iranian nuclear issue was completed in eleven rounds. That is, after the eleventh round, for all actors the status quo appeared to be more preferable than offering more proposals to other actors and continuing the bargaining process. The experts were asked the same question: "What are the current attitudes of stakeholders toward Iran's uranium enrichment?"

The simulated position maximum did not change. The Iranian actors who began the bargaining with a position of 100 finished at the same position. On the other hand, the Israelis started at 0 and ended at 52.8. The position range at the beginning of the analysis was 100 and narrowed down to 47.1 at the end. This can be interpreted as a forecast of a form of consensus, even including the Israelis, about the inevitability of Iran achieving some kind of nuclear program.

(Figure 4-3-4-1 about here)

On the other hand, the average position value steadily increased during the simulation. The average position in round 1 one was 71.9 and increased to 84.1 at the end of round 10. This also shows how the bargaining processes evolved in favor of Iran: note the difference between the end result of the bargaining discussed below and the average policy value. Considering that the model uses median voter theory assumptions, the average policy position of about 85 indicates the prediction of an outcome that strongly favors the Iranian position.

4.4 Results

4.4.1 The Bargaining Process

The expected utility analysis concluded that the bargaining on Iran's nuclear program in this time period would result in an outcome that strongly favored Iran. At the end of the last round, Round 10, the estimation of the model is 97.3, which comes close to the Iranian position at 100.[3] The analysis therefore indicates that Iran will not give in

---

[3] In fact, this simulation was run with Iranian Supreme Leader Khatemi coded as a "veto player" actor. According to the model's logic, if there is a veto player in the game, this veto player's position wins the game when the bargaining is finished, no matter what the discounted forecast is. In fact, the first discounted policy position forecast in this game is a (60) at round 3. However, since Iranian Supreme

to international pressures and will continue developing its nuclear program as it was planned. The data were received from the senior area expert on December 29th 2005, at the height of the crisis, some weeks before the Iranian government declared it was going to restart its nuclear program. Therefore, the expected utility model predicted the end of the bargaining correctly.

The question one might ask immediately is how stable this conclusion proves to be. Table 4-4-1-1 below shows the stability summaries of the bargaining. These results do not lead to a definite conclusion, because none of the categories of perceptions is very dominant. The interaction of the perceptions suggests that the actors are more likely to reach a compromise solution.

(Table 4-4-1-1 about here)

Figure 8 shows how the bargaining evolved over time. At the end of round 1, 2 and 4, the forecast was 70, which is the moderate (Russian proposal) position. However, in round 6, the Iranian position picked up and the forecast steadily developed towards the Iranian position after this point, note the slope of the linear trend line in figure 9. As the time of the bargaining extended, some actors shifted closer to the Iranian position and a continuation with the nuclear option prevailed.

(Figure 4-4-1-1 and 4-4-1-2 about here)

This rather abstract mathematical demonstration of the diplomatic bargaining draws parallels to the actual dynamics of international politics. In such circumstances as the nuclear bargaining, the more extended the bargaining the better will be the outcome that is likely to appear for the defensive side. A very similar outcome was

---

Leader who is the veto player did not change his position (100) during the rounds, the model's prediction is strongly favor of Iran [i.e. policy position (100)].

84

observed in the United States-North Korea relations regarding the nuclear

proliferation issue in the last fifteen years. Despite all the diplomatic efforts from the

US, the UN and the IAEA, North Korea is reported to achieve nuclear weapons

(James and Özdamar 2004).

More specifically, the Iranian Supreme Leader, government and parliament

did not change their policy position during the bargaining. They kept their

uncompromising position on continuing the nuclear program as they planned to. None

of the actors could make any credible offer to the Iranian actors. On the other hand,

the US and the European Union both appeared to favor the Iranian program less at the

end of the bargaining. That is, their policy position at the end of round 10 was 60.

IAEA did not change the same position (60) that proposes strict controls over Iranian

research sites during the rounds. On the other hand, the Russian and Chinese

positions approximated the Iranian position towards the end of bargaining. This is an

interesting result, for from the more comprehensive outputs of the model one can see

that the model forecasted moderate positions of 70 and 60 at the ends of rounds 4 and

5, respectively. In both these rounds, the Russian and Chinese positions were

moderate. As the Russians and Chinese switched positions and came closer to the

pro-Iranian position, the whole dynamics of the issue favored Iran. An analysis of the

stakeholders' position shifts can explain what credible proposals changed the

outcome of this bargaining.

4.4.2 Position Shifts

One of the advantages of using the expected utility model is that it not only provides a forecast about the issue at hand, but it also allows the researcher to study the strategic interactions between the actors during the bargaining. The vast number of calculations the model makes can be studied step by step using the original output. These outputs results show what actor put forward what kind of (credible or non-credible) proposals to the others.

The US initially supported the diplomatic solution that EU3 has tried to achieve. When this did not work, both the EU3 and the United States supported the Russian moderate position. This is the initial position area experts coded for this simulation. At rounds 1 and 2, the IAEA makes two credible proposals to the EU3 and the US to shift from 70 to 60, respectively. That is, when the European and American actors could anticipate a less cooperative Iran, they switched to a more hard-liner position.

As I have mentioned above, the significant moves that changed the outcome of the bargaining came from Russia and China. These two are key actors both economically (due to their trade ties with Iran) and politically (due to their UNSC status), and they were both given credible proposals by the Iranian Supreme leader and the Iranian Government. At round 5, the Iranian Supreme Leader and the Iranian government propose Russia for more support. Russia switches from a moderate position (60) to a strong pro-Iranian position (100). At round 10, the Iranian Supreme Leader makes a similar proposal to China. China accepts the proposal and shifts from the moderate position (60) on Iran's nuclear issue to a strong pro-Iranian position (99).

The Chinese shift here is not very surprising. The Chinese foreign affairs elite have declared many times that they do not believe the Iranian nuclear program is for military purposes. Even if it were, they do not believe the program would be a direct threat to China. For the Chinese, uninterrupted energy trade with Iran is more valuable than other policy options. This indicates that the predictions of the model are plausible. However, Russia surprisingly moved away from its own proposal to Iranians by the Iranian actors. The Russian proposal to enrich uranium in Russia and to allow Iran to continue its nuclear program was not accepted by Iran. It might seem unexpected that Russia is moved by its own position. However, this is possible given the condition of the Russian economy and its dependence on income by the technology transfer to Iran. Russia may eventually accept a nuclear Iran just to be able to continue selling nuclear technology to it.

Finally, the biggest change of an actor's policy position in the simulation was made by Israel. In round 1, Israel had the completely opposite position of Iran; it does not want Iran to develop any nuclear capacity and is perhaps the most willing actor to bring about a policy change by use of force. The model predicts that Israel will not come closer to the moderate position. But it shows a change from position 0 to 52.8 at the end of the simulation. Most of this change was brought about by Russia in rounds 1, 2, 3 and 5. Credible Russian proposals deterred Israel from its completely antagonistic position to Iran's nuclear program and led to a shift towards a more moderate position. This could also be interpreted as Russia's desire to prevent any Israeli military action. Considering the Middle Eastern international politics in the last

six decades, these kinds of antagonistic relations between Russia and Israel appear to be plausible.

4.4.3 Analysis of Perceptions and Stability

Once the actors have estimated their expected utilities, the model allows the researcher to study the relationships between each pair of stakeholders (Bueno de Mesquita 2003). That is, one can analyze how pairs of actors perceive each others' intentions, both numerically and verbally. Visual representations of the numeric accounts of some important actors in are presented Figure 4-4-3-1; Table 4-4-3-1 shows the verbal summaries of all actors' perceptions.

The employed model is based on certain logical conditions regarding the inferences about the behavior of actors and the end of the bargaining. If a player believes that challenging a rival is gainful for him and also believes the rival agrees with this assessment, then the former expects the latter to either compromise or give in to coercion. A compromise occurs if the challenger's demand is greater than what the rival thinks is necessary to give. Coercion occurs if the challenger's demands appear to be a smaller utility loss to the rival than the rival expected them to be. A continuation of the status quo or stalemate occurs if a player and his rival believe making further proposals to each other will induce losses. And finally, if a player and his rival believe they will gain from challenging the other and expect to win, then conflict is expected between the parties (Bueno de Mesquita 2003). A visual representation of these relationships is given in Figure 4-4-3-1.

(Figure 4-4-3-1 about here)

A verbal summary table can also be employed to study the perceptions of the actors. The first column presents what kind of a relation the challenger is expected to have with the rival actors listed. The second column shows what the challenger believes the rival thinks. In the third column appears what the predictive model proposes about the type of relationship that will appear as a result of the interaction when everyone acts according to these expectations (Bueno de Mesquita 2003). In every round of the model there is one verbal summary table. The one used below here summarizes the last round of the bargaining.

(Table 4-4-3-1 about here)

Note that a "+" sign indicates that the focal group is expected to have advantage while "-" indicates the rival is expected to have an advantage. "Conflict" means both actors expect to gain from challenging each other. "Compromise" means either the rival "+" or the focal group "-" is expected to shift its policy stance toward the other. "Compel" indicates either the rival "+" or the focal group "-" is expected to acquiesce by accepting the policy stance of the other player. "Stalemate" indicates the status quo will continue (Bueno de Mesquita 2003).

Let us analyze the perceptions at the end of the bargaining (Round 10). Figures 4-4-3-2 to 4-4-3-6 show the perceptions of the Iranian Supreme Leader, Government, IAEA, EU3 and the United States.[4]

(Figures 4-4-3-2 through 4-4-3-6 about here)

---

[4] Note that the perceptual analysis can include a category called "no issue" between the actors. This means these actors' stance is the same in this bargaining. In other words, their policy position is identical; therefore, they perceive "no issue" with the actors who holds the same view.

The Iranian Supreme Leader Khamanei and the Iranian Government's (President Ahmedinejad) perspective show clear similarities. This is plausible considering that their stance on the nuclear issue is very similar, with the only difference that the Supreme Leader has more power than other Iranian domestic actors. The figures that show their perceptions on the issue are almost identical.

At the end of bargaining round 11, the model predicts that conflict is not likely. IAEA, US, EU3 and Israel are in the stalemate area regarding their perceptions on Iran. That is, they do not come any closer to the Iranian position on the issue. However, they also think making more proposals will induce losses. The Iranian actors think the same way, so the model predicts a stalemate for the nonce. On the other hand, the Iranian Supreme Leader and the Government appear to be successful in terms of convincing India, Pakistan, Saudi Arabia and China about their nuclear program. In the described figures, these four countries are in the upper part of the lower right quadrant. That means they are likely to have a compromise solution with Iran. This also goes in line with what has really been happening since December 2005. These four countries maintain a neutral or pro-Iranian position and are least likely to support a diplomatic or military action against it. The most surprising result is that the model predicts the European Union Council to support the Iranian nuclear program. So far, it looks like the expected utility model does not appropriately predict the Council's actions.

IAEA, EU3 and the United States' perceptions are very similar, as well. Figures 4-4-3-4 to 4-4-3-6 show that all three actors do expect a stalemate with the Iranian Supreme Leader, Government and the Parliament. Russia, in all three figures,

is right at the border between "losses" and "gains" for the IAEA, EU3 and the US. It can be concluded that the Russian position is highly volatile and can still go both ways (i.e. Western and Iranian) in the future. A very interesting point in these three actors' perceptions is that they all think China, India, Pakistan and Saudi Arabia are still convincible. This means that the US, EU3 and the IAEA still perceive these countries as being persuadable to support sanctions against Iran.

Lastly, the perceptions analysis shows that all three actors against Iran's nuclear proliferation will have a tense and conflict-prone relationship with Israel. At first, this might not seem obvious, since Israel is also opposed to Iran's nuclear program. In my opinion, however, this conclusion shows how plausible the expected utility model's predictions can be: Israel's position on this issue is an extreme; their publicly announced position suggests they are in favor of immediate military action against Iran, although it is not unlikely that this is a bluff. Therefore, Israel does not favor the slow-going diplomatic efforts of the IAEA, US and EU. Israel is still challenging all three of them to take a harder line against Iran. Considering the history of Israeli wars in the Middle East the model makes a very plausible prediction here. Israel did not avoid using force for the sake of its security even when its allies did not approve. The 1956 Suez crisis and the 1967 war are great examples of similar Israeli behavior. That is, Israel is likely to push for a more hard-liner policy against Iran.

4.5. Discussion

The following discussion focuses on the implications of the presented results and analysis. It will also address the advantages and shortcomings of this model as a tool to investigate the issue at hand. Finally, it will be discussed how the Iranian nuclear crisis might develop in the future.

Most generally, the model correctly predicted the outcome of the bargaining that Iran would not give in to the international pressure. The area expert was asked to code the data on the issue as of December 2005, and in January/February 2006, Iran resumed the work at its nuclear facilities. More specifically, the analysis correctly predicted all of the actors' moves but one. The expected utility model does not seem to predict the European Union Council's behavior correctly. The Council did not and is not likely to shift toward the Iranian position.

One shortcoming of the model is its imprecision in predicting the exact timing of the decisions made. Also, the model does not provide any information on how long this outcome will be stable. Instead, it gives with a stability estimate based on the perceptions. Figures 4-5-1 and 4-5-2 show how aggregated perceptions (from any actor *i*'s perspective) in the simulation evolved over time. Figures 4-5-3 and 4-5-4 demonstrate how shared perceptions (i.e. the joint view on the issue) developed. Note that both *i*'s perspective and the joint view perception suggest a compromise solution rather than further conflict. However, the model does not tell us how long this situation is likely to continue. Therefore, many studies using this model have repeated their simulations over time with new data to control for changes in the bargaining conditions and external shocks or developed alternative (counterfactual) scenarios

(Organski and Lust-Okar 1997; Fuchs et al.1997; Kugler et al. 2003). Hence, in the next steps of this research I will continue to collect data and run more simulations in order to achieve many forecasts on the issue over time.

(Figures 4-5-1 to 4-5-4 about here)

One advantage of using this model for international conflict issues is that it allows the analysis of strategic moves by actors. An examination of such moves can lead to important policy recommendations. This simulation concludes, for example, that getting the support of Russia and China are the most crucial steps in dealing with Iran's nuclear program. During the bargaining, when Russia, China or both switched to the moderate position (i.e. between 60-80), the outcome of the bargaining favored the moderate position. When China and Russia began to change sides and accepted the Iranian position, especially after round 5, the balance was changed in favor of Iran. This demonstrates the importance of a multilateral approach to the issue of Iran's nuclear program. Iran could probably not resist extreme international isolation in case Russia and China joined the US and the EU. But when the EU and the US are balanced by Russia and China, Iran's bargaining power increases.

Also, the analysis suggests that China, Pakistan, India and Saudi Arabia can still be co-opted by the US and the EU on this issue. According to the perceptions at the end of round 11, for the United States and the EU, those four governments are still to be negotiated with. The likely outcome the model predicts is that the latter four will be compelled in favor of the US and the EU.

More specifically, I suggest that further economic sanctions and the use of force against Iran are extremely costly options for the United States to bear. The

93

reasons for this can be summarized under three headings. First, given the present high oil prices and inflexible excess capacity of oil production (only about two million barrels a day), it is difficult to put at risk the energy prices at this point. Second, the US is already having a difficult time controlling the violence in Iraq. Use of force against Iran may cause more turmoil in southern Iraq where Shiites are dominant. Third, domestically there is less support for the Iraq war and more criticism for military spending and budget deficits in the US, which will make a military option even more difficult for the US.

On the other hand, it does not seem likely that Iran is will use its "oil weapon" unless the issue becomes totally out of control. The Iranian government has long been struggling with macroeconomic difficulties like huge budget deficits, and the lack of oil and gas incomes will only exacerbate the situation. According to an IMF analyst, the macroeconomic balance could only be maintained if the oil prices were to be above 15 dollars per barrel (Amuzegar 2003). The current oil prices and income derived from oil are necessary for Iran to maintain its precarious financial balance[5]. Hence, Iran is not likely to use oil production as a weapon.

A diplomatic solution seems remote, the US is not apt to use military force, and Iran is not likely to further provoke the US and the EU. What will the situation look like in the near future? Is the compromise solution plausible or should we expect big changes?

I think the situation will continue to be a controlled or limited crisis. The US and the EU will keep threatening Iran but will not necessarily take any harder-line

---

5 Revenues from oil exports are projected to reach about $45bn dollars this year to March that is about 50% of Iran's annual budget (BBC 2006).

actions. Iran will continue "misbehaving" to improve its international legitimacy.

That is, by pursuing misconduct Iran is likely to improve its bargaining leverage.

Especially by altering the perceptions of other actors and fostering uncertainty,

weaker countries can create more room for their negotiations capabilities. This is

exactly what North Koreans did in 1994 (James and Özdamar 2004, Bueno de

Mesquita 2003). By altering the perceptions that they have a more advanced nuclear

program than the international community imagined, the Iranians will increase their

international legitimacy. In 1994, before the Clinton administration started

negotiations with North Korea, many analysts did not think North Korea had

advanced nuclear technology. By altering the perceptions of the US and the rest of the

world, North Korea gained more international legitimacy, substantial economic

assistance with the Agreed Framework, and acceptance of a greater nuclear role

(Bueno de Mesquita 2003).

I suggest Iran is trying to do the same and will continue misconduct to gain

leverage. Some analytical tools might help us understand this better. Figure 4-5-5[6]

shows the Iranian, American and European positions on the issue and possible win

sets. By changing the perceptions of other actors Iran may try to move from lesser

outcomes (i.e. the EU-US status quo position at the lower left of part of the graphic)

to better outcomes (to the upper right side of the graphic). The longer the negotiations

will take the more leverage it will gain from this bargaining.

(Figure 4-5-5 is about here)

---

[6] Based on Bueno de Mesquita's (2003, 364) discussion on North Korea's nuclear program.

4.6 Appendix to the Chapter: Information on Involved Iranian Actors

Supreme Leader Ayatollah Ali Khamanei:

Khamanei was appointed for life in 1989 and has held the post since then. In the Islamic Republic of Iran, the Supreme Leader holds the largest power in the country. He appoints the many important officials such as the national security advisors, the head of the judiciary branch, military officials, the head of national radio and TV and Friday prayer leaders. He also selects six members of the Guardian Council that "protects" the Islamic Republic approving all legislation and vetoing any possible election candidates (BBC 2006). He is usually on the "conservative" side of the Iranian political continuum.

President Mahmoud Ahmedinejad:

The ultra-conservative mayor of Tehran has become the president in August 2005 after eight years of moderate President Khatemi's rule. He is the first non-clerical president of the Islamic Republic of Iran. Since his election, Ahmadinejad consistently announced that Iran will continue with its nuclear program as it planned to. The Iranian president can serve two terms, four years each. Although the president is the second highest ranking official in the country, their powers are circumscribed by the clerics, conservatives and the Supreme Leader. Supreme Leader Khamanei is the ultimate authority responsible for the military, security and nuclear policy (BBC 2006).

The Majlis:

There are 290 members of the Iranian parliament who are selected by popular vote every four years. The parliament has the power to introduce and pass laws and summon and impeach presidents (BBC 2006). The current Majlis is mostly composed of conservatives who support Iran to continue its nuclear program and not give in to foreign pressure.

Table 4-3-1-1 The expert generated data.

	Resource (1-100)	Position (0-100)	Salience (1-100)
EU (3) (Represented by France, Germany and UK)	50	70	75
EU Council (High Representative Havier Solana)	20	70	60
Russia	50	70	70
United States	100	70	75
Israel	20	0	75
China	50	85	40
India	10	70	40
Pakistan	10	70	40
Saudi Arabia and the Gulf Cooperation Council	10	70	40
IAEA	70	60	100
Iranian Government (President Ahmadinejad and MFA Mottaki)	50	100	75
Supreme Leader Ali Khamanei	100 veto player	100	90
Iranian Parliament	50	100	75

Table 4-4-1-1 Stability Summary Tables for Round 10

Perceptions (percent): Expected proportion by the model for relationship between actors based on perceptions.

No Issue[7]	Conflict	Compromise	Status Quo	Compel
15.38461	14.74359	26.92308	20.51282	22.4359

Interaction of Perceptions (percent): Predicted proportion by the model for relationship between actors based on interaction of perception.

No Issue	Conflict	Compromise	Status Quo	Compel
15.38461	8.974359	33.33333	15.38461	26.92308

---

[7] No issue denotes the percentage of relationships in that actors already agree on policy positions and see no conflict issue.

99

Table 4-4-3-1 Verbal Summaries of the Perceptions at Round 10.

FocalGroup	RivalGroup	FocalView	RivalView	JointView
IranSL	IranGov	No Issue	No Issue	No Issue
IranSL	IranPar	No Issue	No Issue	No Issue
IranSL	Russia	No Issue	No Issue	No Issue
IranSL	China	+ Conflict	+ Conflict	+ Conflict
IranSL	EUCouncil	+ Compel	+ Compel	+ Compel
IranSL	India	+ Compel	+ Compel	+ Compel
IranSL	Pakistan	+ Compel	+ Compel	+ Compel
IranSL	SaudiArab	+ Compel	+ Compel	+ Compel
IranSL	IAEA	- Stalemate	- Stalemate	- Stalemate
IranSL	USA	+ Stalemate	- Stalemate	- Stalemate
IranSL	EU3	- Stalemate	- Stalemate	- Stalemate
IranSL	Israel	+ Stalemate	- Conflict	- Compromise
IranGov	IranSL	No Issue	No Issue	No Issue
IranGov	IranPar	No Issue	No Issue	No Issue
IranGov	Russia	No Issue	No Issue	No Issue
IranGov	China	+ Conflict	+ Conflict	+ Conflict
IranGov	EUCouncil	+ Compromise	+ Compromise	+ Compromise
IranGov	India	+ Compromise	+ Compromise	+ Compromise
IranGov	Pakistan	+ Compromise	+ Compromise	+ Compromise
IranGov	SaudiArab	+ Compromise	+ Compromise	+ Compromise
IranGov	IAEA	- Stalemate	- Stalemate	- Stalemate
IranGov	USA	- Stalemate	- Stalemate	- Stalemate
IranGov	EU3	- Stalemate	- Stalemate	- Stalemate
IranGov	Israel	- Stalemate	- Conflict	- Compromise
IranPar	IranSL	No Issue	No Issue	No Issue
IranPar	IranGov	No Issue	No Issue	No Issue
IranPar	Russia	No Issue	No Issue	No Issue
IranPar	China	+ Conflict	+ Conflict	+ Conflict
IranPar	EUCouncil	+ Compromise	+ Compromise	+ Compromise
IranPar	India	+ Compromise	+ Compromise	+ Compromise
IranPar	Pakistan	+ Compromise	+ Compromise	+ Compromise
IranPar	SaudiArab	+ Compromise	+ Compromise	+ Compromise
IranPar	IAEA	- Stalemate	- Stalemate	- Stalemate
IranPar	USA	- Stalemate	- Stalemate	- Stalemate
IranPar	EU3	- Stalemate	- Stalemate	- Stalemate
IranPar	Israel	- Stalemate	- Conflict	- Compromise
Russia	IranSL	No Issue	No Issue	No Issue
Russia	IranGov	No Issue	No Issue	No Issue
Russia	IranPar	No Issue	No Issue	No Issue
Russia	China	+ Conflict	+ Conflict	+ Conflict

FocalGroup	RivalGroup	FocalView	RivalView	JointView
Russia	EUCouncil	+ Compromise	+ Compromise	+ Compromise
Russia	India	+ Compromise	+ Compromise	+ Compromise
Russia	Pakistan	+ Compromise	+ Compromise	+ Compromise
Russia	SaudiArab	+ Compromise	+ Compromise	+ Compromise
Russia	IAEA	- Stalemate	- Stalemate	- Stalemate
Russia	USA	- Stalemate	- Stalemate	- Stalemate
Russia	EU3	- Stalemate	- Stalemate	- Stalemate
Russia	Israel	- Stalemate	- Conflict	- Compromise
China	IranSL	- Conflict	- Conflict	- Conflict
China	IranGov	- Conflict	- Conflict	- Conflict
China	IranPar	- Conflict	- Conflict	- Conflict
China	Russia	- Conflict	- Conflict	- Conflict
China	EUCouncil	+ Conflict	+ Conflict	+ Conflict
China	India	- Conflict	- Conflict	- Conflict
China	Pakistan	- Conflict	- Conflict	- Conflict
China	SaudiArab	- Conflict	- Conflict	- Conflict
China	IAEA	- Give In	- Give In	- Give In
China	USA	- Give In	- Compromise	- Give In
China	EU3	- Give In	- Compromise	- Give In
China	Israel	- Stalemate	- Conflict	- Compromise
EUCouncil	IranSL	- Give In	- Give In	- Give In
EUCouncil	IranGov	- Compromise	- Compromise	- Compromise
EUCouncil	IranPar	- Compromise	- Compromise	- Compromise
EUCouncil	Russia	- Compromise	- Compromise	- Compromise
EUCouncil	China	- Conflict	- Conflict	- Conflict
EUCouncil	India	- Conflict	- Conflict	- Conflict
EUCouncil	Pakistan	- Conflict	- Conflict	- Conflict
EUCouncil	SaudiArab	- Conflict	- Conflict	- Conflict
EUCouncil	IAEA	- Stalemate	- Give In	- Give In
EUCouncil	USA	- Stalemate	- Give In	- Give In
EUCouncil	EU3	- Stalemate	- Give In	- Give In
EUCouncil	Israel	- Stalemate	- Conflict	- Compromise
India	IranSL	- Give In	- Give In	- Give In
India	IranGov	- Compromise	- Compromise	- Compromise
India	IranPar	- Compromise	- Compromise	- Compromise
India	Russia	- Compromise	- Compromise	- Compromise
India	China	+ Conflict	+ Conflict	+ Conflict
India	EUCouncil	+ Conflict	+ Conflict	+ Conflict
India	Pakistan	No Issue	No Issue	No Issue
India	SaudiArab	No Issue	No Issue	No Issue
India	IAEA	- Give In	- Compromise	- Give In
India	USA	- Give In	- Compromise	- Give In

FocalGroup	RivalGroup	FocalView	RivalView	JointView
India	EU3	- Give In	- Compromise	- Give In
India	Israel	- Give In	- Conflict	- Compromise
Pakistan	IranSL	- Give In	- Give In	- Give In
Pakistan	IranGov	- Compromise	- Compromise	- Compromise
Pakistan	IranPar	- Compromise	- Compromise	- Compromise
Pakistan	Russia	- Compromise	- Compromise	- Compromise
Pakistan	China	+ Conflict	+ Conflict	+ Conflict
Pakistan	EUCouncil	+ Conflict	+ Conflict	+ Conflict
Pakistan	India	No Issue	No Issue	No Issue
Pakistan	SaudiArab	No Issue	No Issue	No Issue
Pakistan	IAEA	- Give In	- Compromise	- Give In
Pakistan	USA	- Give In	- Compromise	- Give In
Pakistan	EU3	- Give In	- Compromise	- Give In
Pakistan	Israel	- Give In	- Conflict	- Compromise
SaudiArab	IranSL	- Give In	- Give In	- Give In
SaudiArab	IranGov	- Compromise	- Compromise	- Compromise
SaudiArab	IranPar	- Compromise	- Compromise	- Compromise
SaudiArab	Russia	- Compromise	- Compromise	- Compromise
SaudiArab	China	+ Conflict	+ Conflict	+ Conflict
SaudiArab	EUCouncil	+ Conflict	+ Conflict	+ Conflict
SaudiArab	India	No Issue	No Issue	No Issue
SaudiArab	Pakistan	No Issue	No Issue	No Issue
SaudiArab	IAEA	- Give In	- Compromise	- Give In
SaudiArab	USA	- Give In	- Compromise	- Give In
SaudiArab	EU3	- Give In	- Compromise	- Give In
SaudiArab	Israel	- Give In	- Conflict	- Compromise
IAEA	IranSL	+ Stalemate	+ Stalemate	+ Stalemate
IAEA	IranGov	+ Stalemate	+ Stalemate	+ Stalemate
IAEA	IranPar	+ Stalemate	+ Stalemate	+ Stalemate
IAEA	Russia	+ Stalemate	+ Stalemate	+ Stalemate
IAEA	China	+ Compel	+ Compel	+ Compel
IAEA	EUCouncil	+ Compel	+ Stalemate	+ Compel
IAEA	India	+ Compromise	+ Compel	+ Compel
IAEA	Pakistan	+ Compromise	+ Compel	+ Compel
IAEA	SaudiArab	+ Compromise	+ Compel	+ Compel
IAEA	USA	No Issue	No Issue	No Issue
IAEA	EU3	No Issue	No Issue	No Issue
IAEA	Israel	+ Conflict	+ Conflict	+ Conflict
USA	IranSL	+ Stalemate	- Stalemate	+ Stalemate
USA	IranGov	+ Stalemate	+ Stalemate	+ Stalemate
USA	IranPar	+ Stalemate	+ Stalemate	+ Stalemate
USA	Russia	+ Stalemate	+ Stalemate	+ Stalemate

FocalGroup	RivalGroup	FocalView	RivalView	JointView
USA	China	+ Compromise	+ Compel	+ Compel
USA	EUCouncil	+ Compel	+ Stalemate	+ Compel
USA	India	+ Compromise	+ Compel	+ Compel
USA	Pakistan	+ Compromise	+ Compel	+ Compel
USA	SaudiArab	+ Compromise	+ Compel	+ Compel
USA	IAEA	No Issue	No Issue	No Issue
USA	EU3	No Issue	No Issue	No Issue
USA	Israel	+ Conflict	+ Conflict	+ Conflict
EU3	IranSL	+ Stalemate	+ Stalemate	+ Stalemate
EU3	IranGov	+ Stalemate	+ Stalemate	+ Stalemate
EU3	IranPar	+ Stalemate	+ Stalemate	+ Stalemate
EU3	Russia	+ Stalemate	+ Stalemate	+ Stalemate
EU3	China	+ Compromise	+ Compel	+ Compel
EU3	EUCouncil	+ Compel	+ Stalemate	+ Compel
EU3	India	+ Compromise	+ Compel	+ Compel
EU3	Pakistan	+ Compromise	+ Compel	+ Compel
EU3	SaudiArab	+ Compromise	+ Compel	+ Compel
EU3	IAEA	No Issue	No Issue	No Issue
EU3	USA	No Issue	No Issue	No Issue
EU3	Israel	+ Conflict	+ Conflict	+ Conflict
Israel	IranSL	+ Conflict	- Stalemate	+ Compromise
Israel	IranGov	+ Conflict	+ Stalemate	+ Compromise
Israel	IranPar	+ Conflict	+ Stalemate	+ Compromise
Israel	Russia	+ Conflict	+ Stalemate	+ Compromise
Israel	China	+ Conflict	+ Stalemate	+ Compromise
Israel	EUCouncil	+ Conflict	+ Stalemate	+ Compromise
Israel	India	+ Conflict	+ Compel	+ Compromise
Israel	Pakistan	+ Conflict	+ Compel	+ Compromise
Israel	SaudiArab	+ Conflict	+ Compel	+ Compromise
Israel	IAEA	- Conflict	- Conflict	- Conflict
Israel	USA	- Conflict	- Conflict	- Conflict
Israel	EU3	- Conflict	- Conflict	- Conflict

Figure 4-3-2-1 Policy Positions (0-100)

Israel		IAEA	EU3 EU Council Russia US India Pakistan Saudi Arabia and GCC		China		SL Khamanei President Ahmedinejad Iranian Parliament
0		60	70		85		100
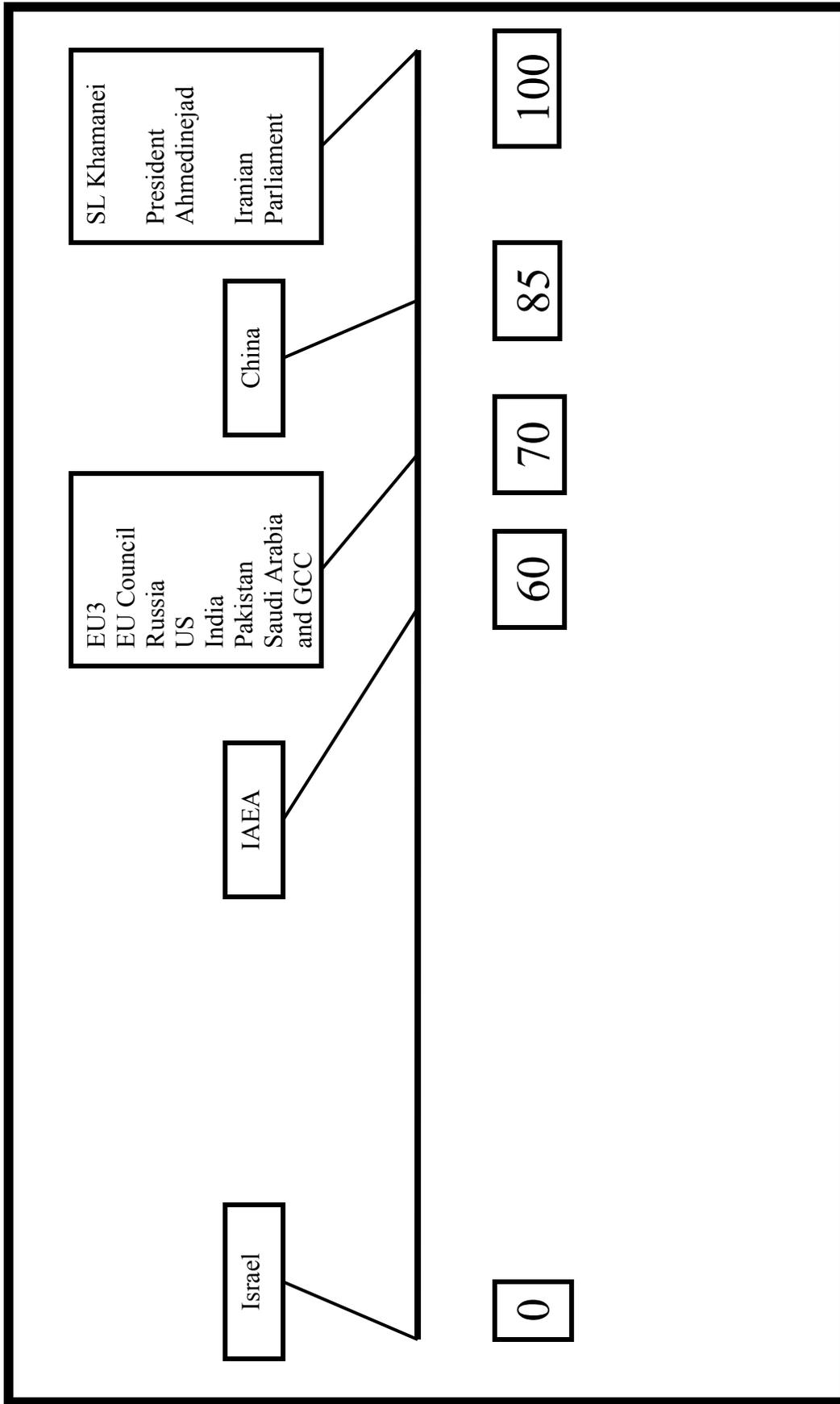
Figure 4-3-3-1 Absolute Capability Distribution

Legend: India, Pakistan, SaudiArab, EUCouncil, Israel, China, EU3, IranGov, IranPar, Russia, IAEA, IranSL, USA

Pie slices: India 2%, Pakistan 2%, SaudiArab 2%, EUCouncil 3%, Israel 3%, China 8%, EU3 8%, IranGov 8%, IranPar 8%, Russia 8%, IAEA 12%, IranSL 18%, USA 18%

Figure 4-3-3-2 Salience Scores
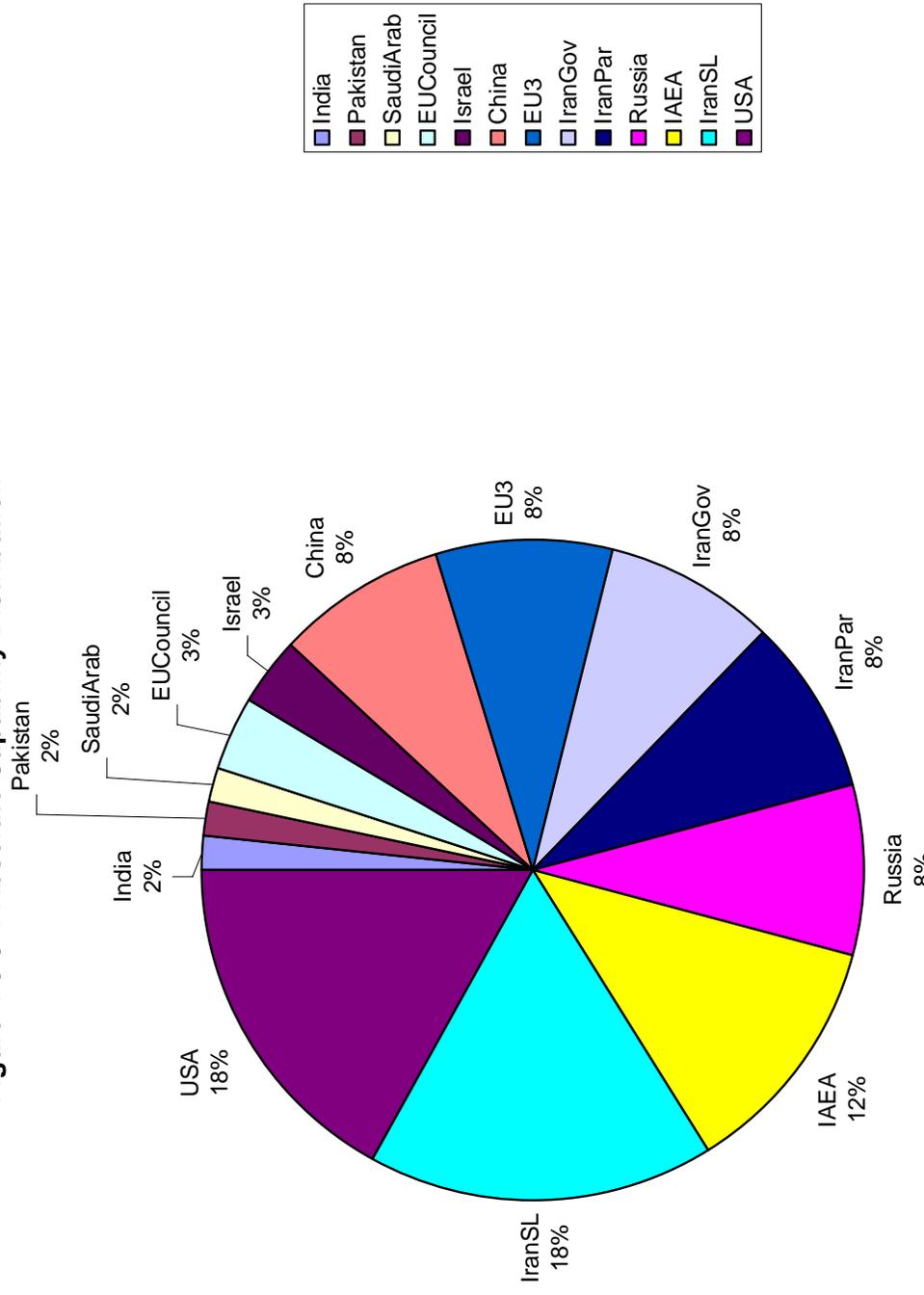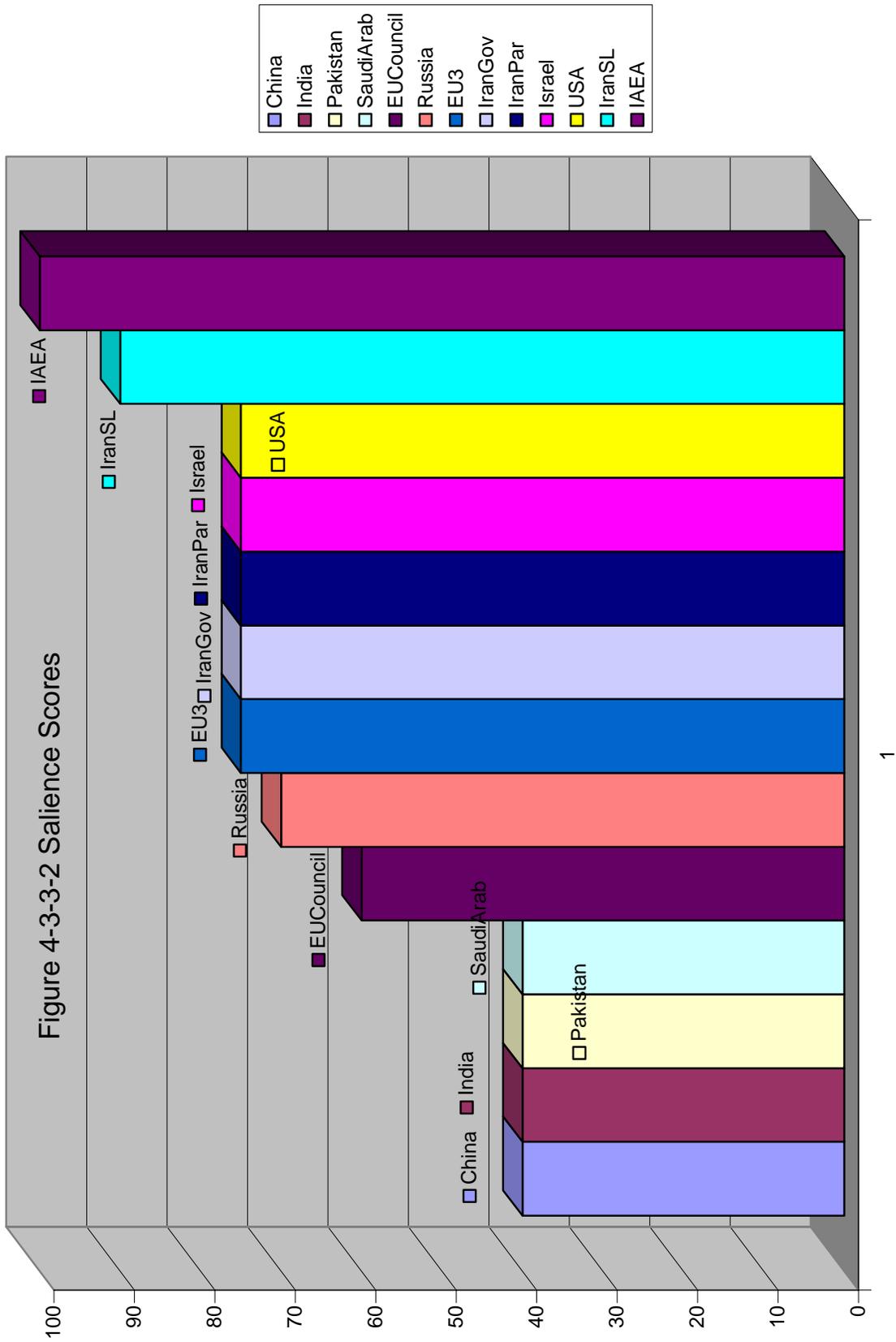
Figure 4-3-3-3 Effective Power (Resources*Salience) Distribution by Actors

Legend: China, EU3, EUCouncil, IAEA, India, IranGov, IranPar, IranSL, Israel, Pakistan, Russia, SaudiArab, USA

IAEA 16%
India 1%
IranGov 8%
IranPar 8%
IranSL 21%
Israel 3%
Pakistan 1%
Russia 8%
SaudiArab 1%
USA 17%
China 5%
EU3 8%
EUCouncil 3%
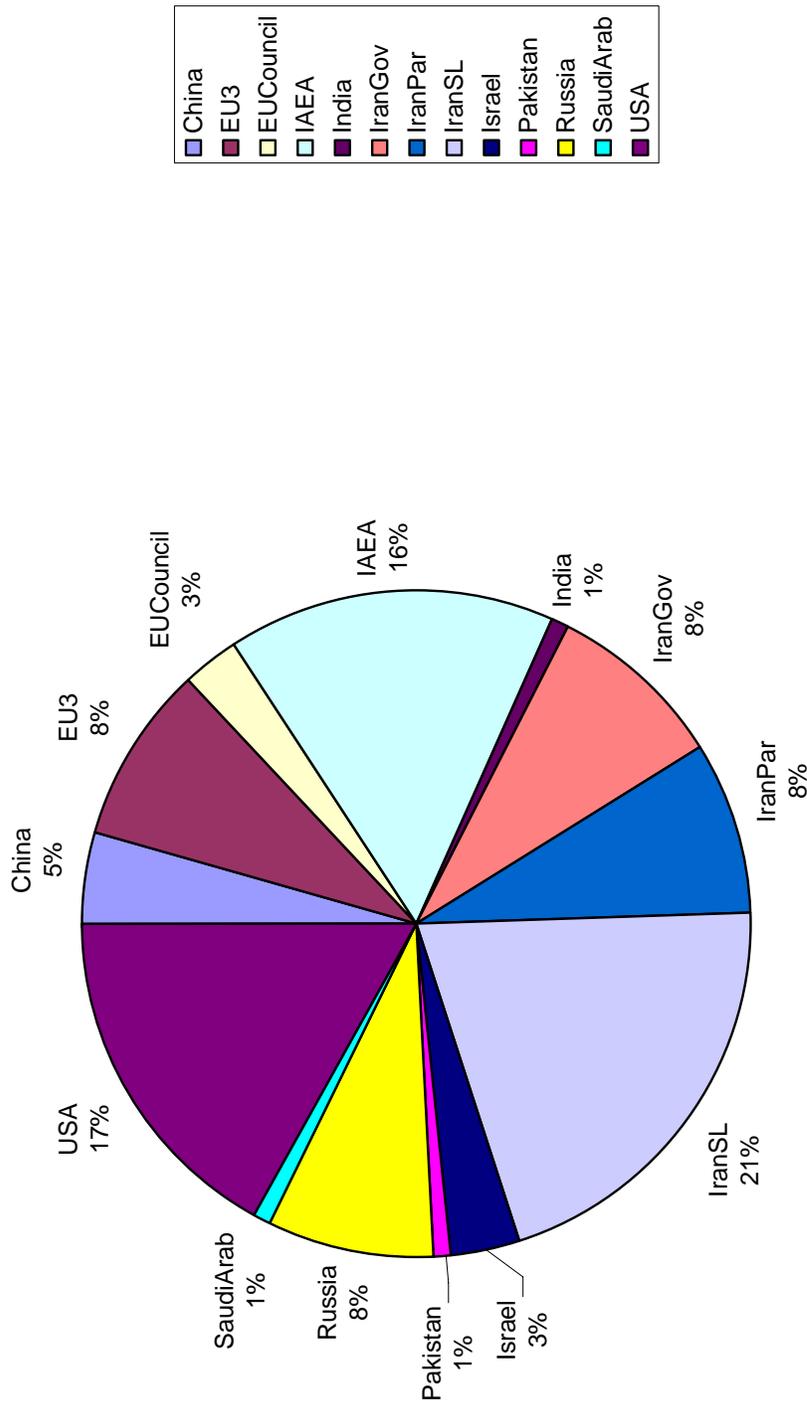
Figure 4-3-3-4 Effective Power Distribution According to Positions
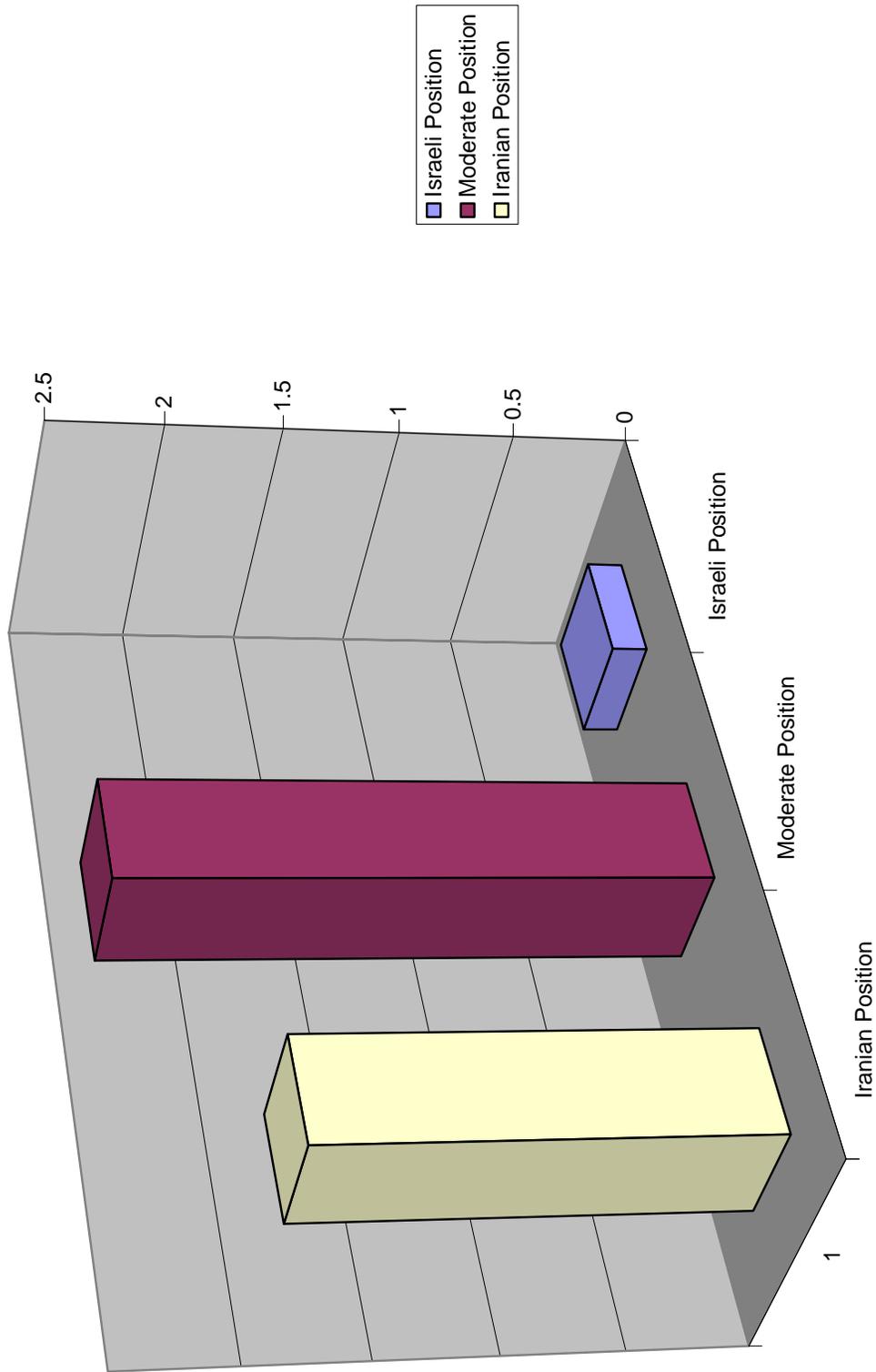
Figure 4-3-3-5 Effective Power Distribution by Position (pie Chart)

Legend:
- Israeli Position
- Moderate Position
- Iranian Position

Moderate Position 55%

Israeli Position 3%

Iranian Position 42%
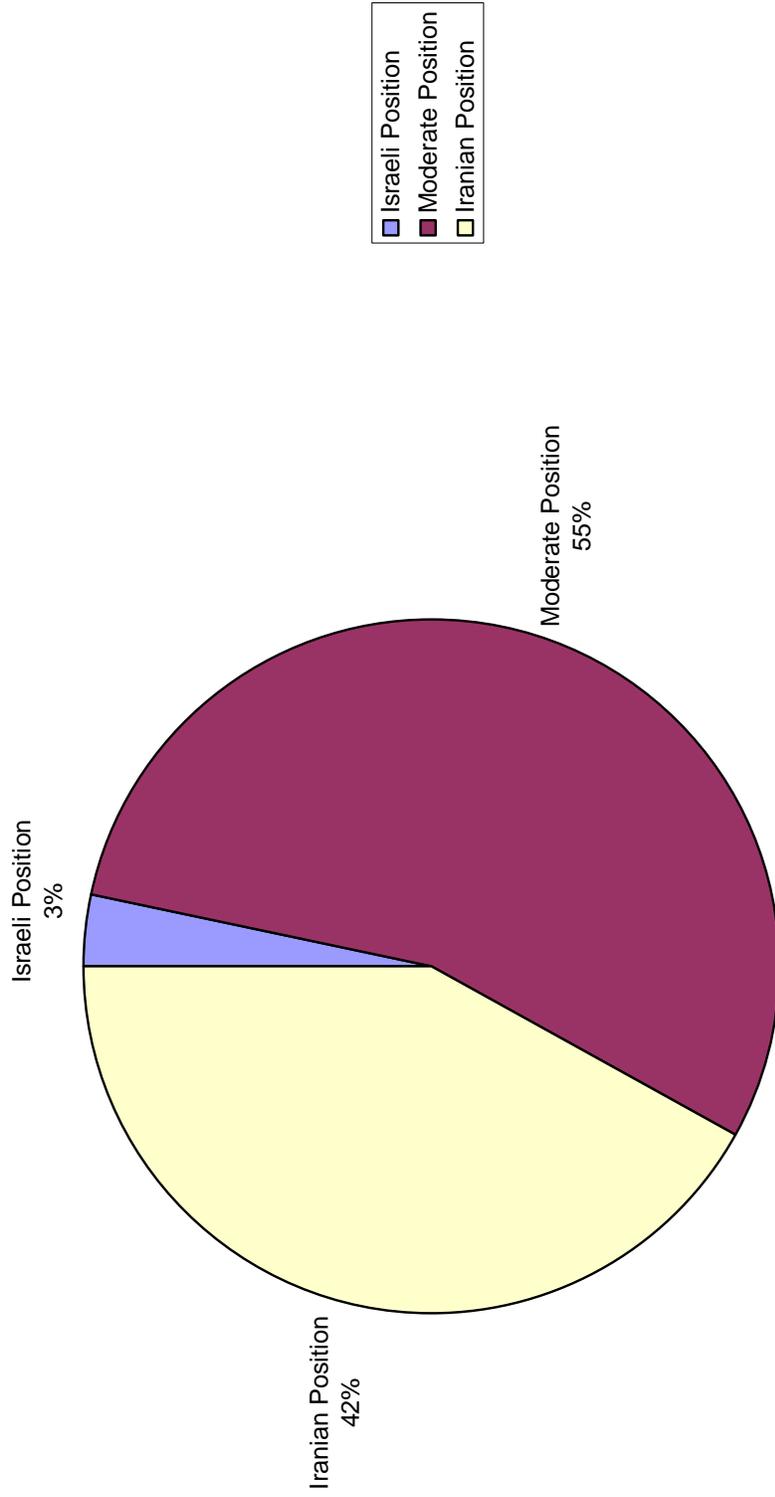
Figure 4-3-4-1 Simulation Position Min-Max-Averages
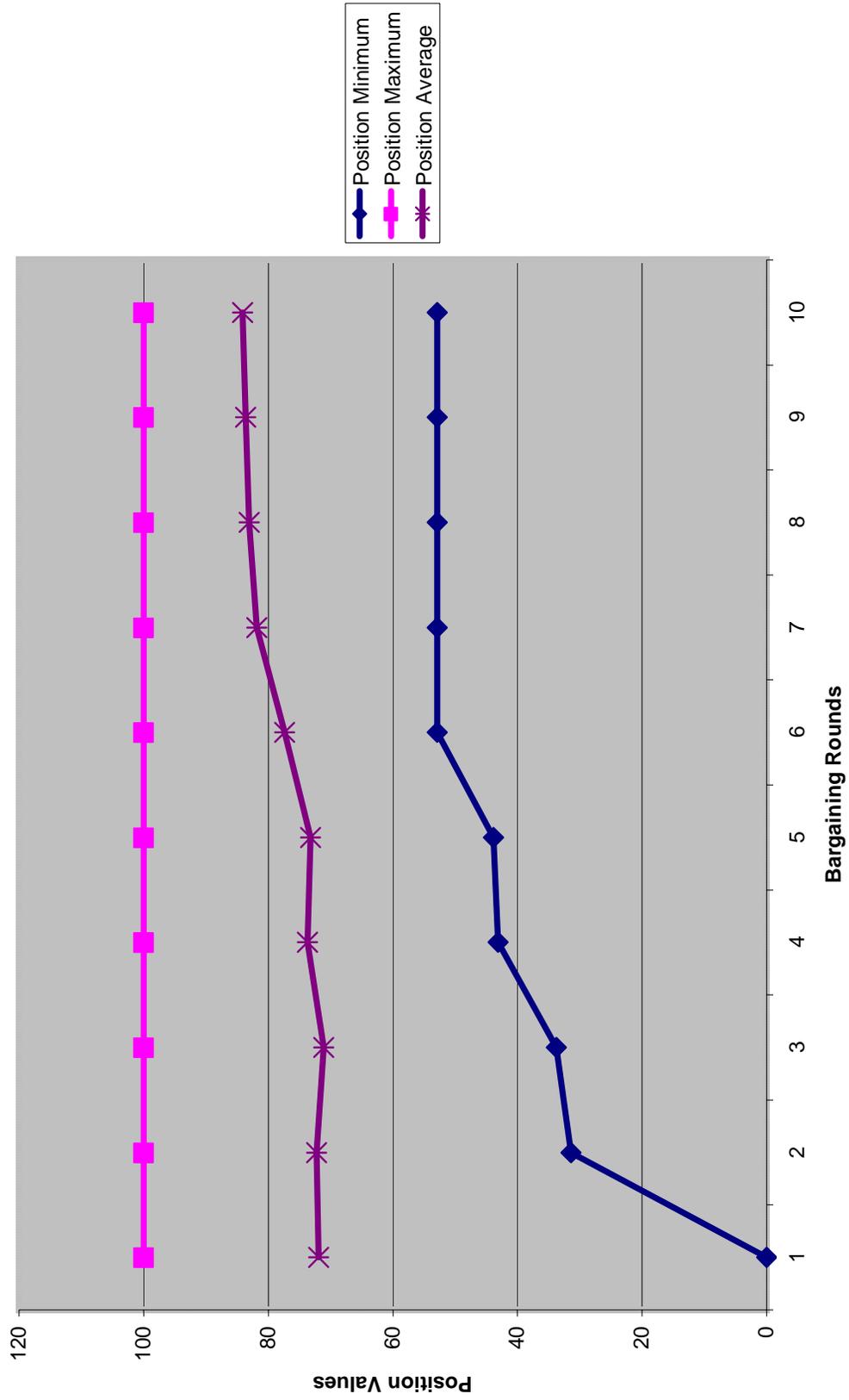
Figure 4-4-1-1 Iranian Nuclear Crisis, December 2005.
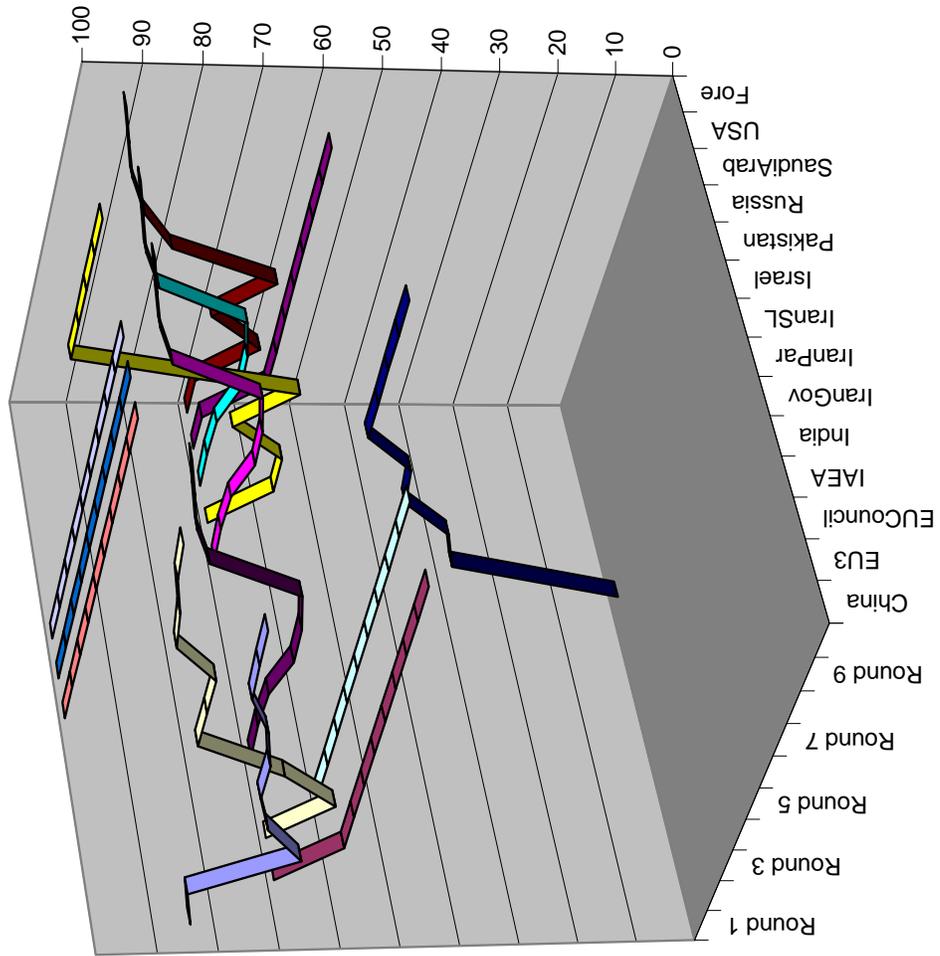
Figure 4-4-1-2 Forecast over Rounds and the Linear Trend Line
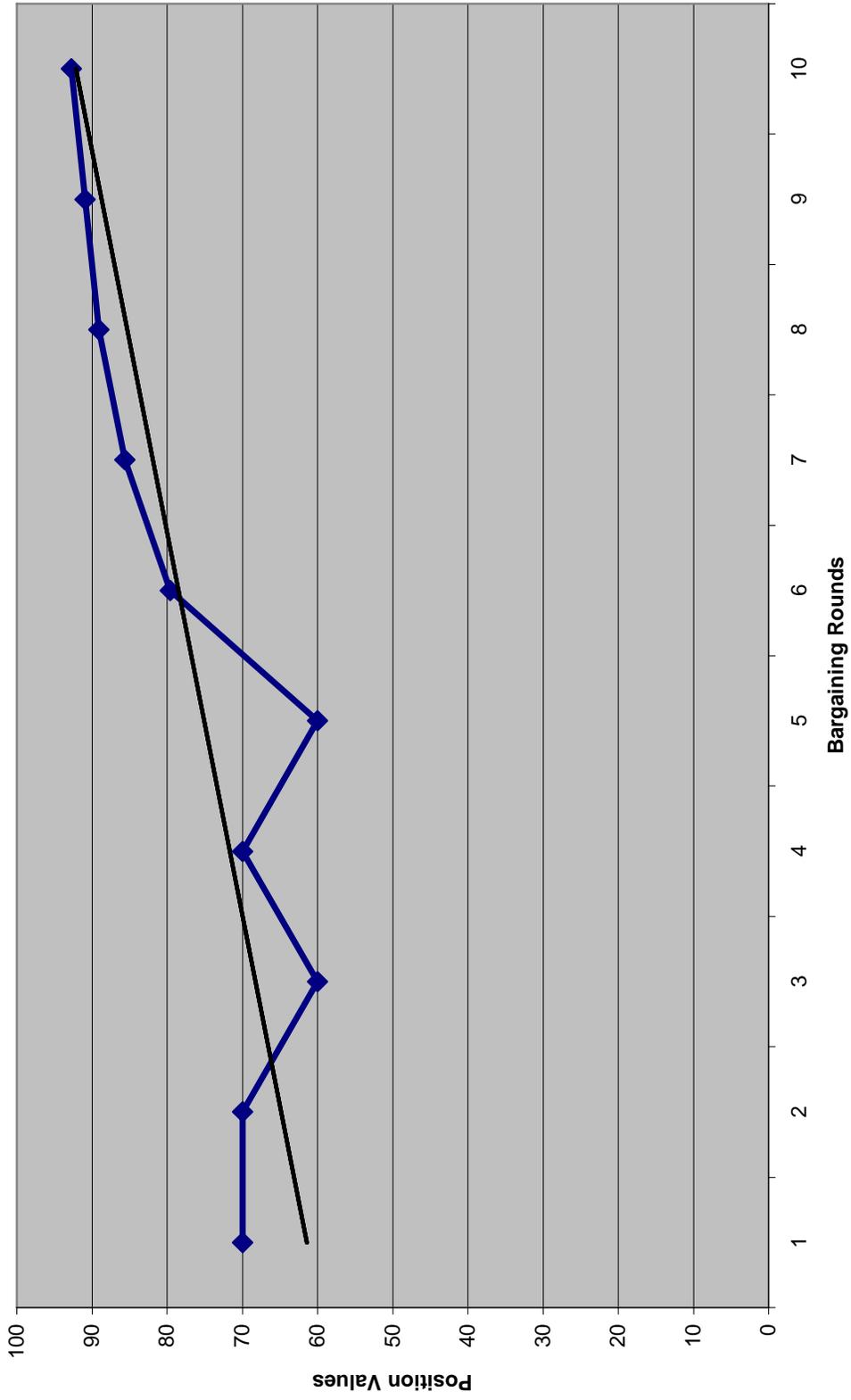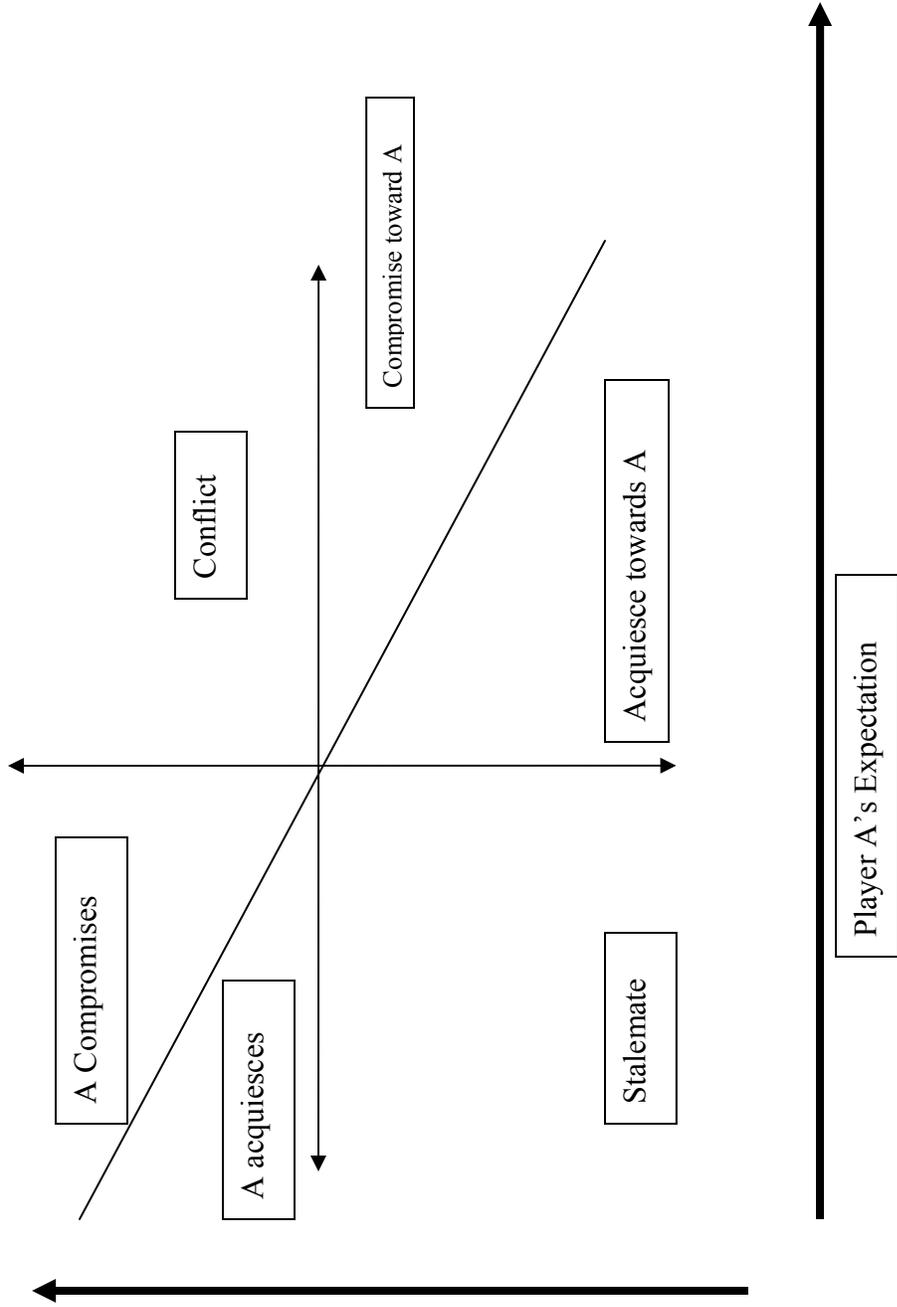
Figure 4-4-3-1 The Nature of Interactions: A's Perspective (Buneo de Mesquita 2003).

Compromise toward A

Conflict

Acquiesce towards A

A Compromises

A acquiesces

Stalemate

Player A's Expectation

Figure 4-4-3-2 Expected Utility Assesments: Iranian SL's Perceptions

Note: All values are multiplied by 10 to facilitate reading.
Iranian Government, Parliament and Russia's perceptions
are "no issue". So they are not plotted here.
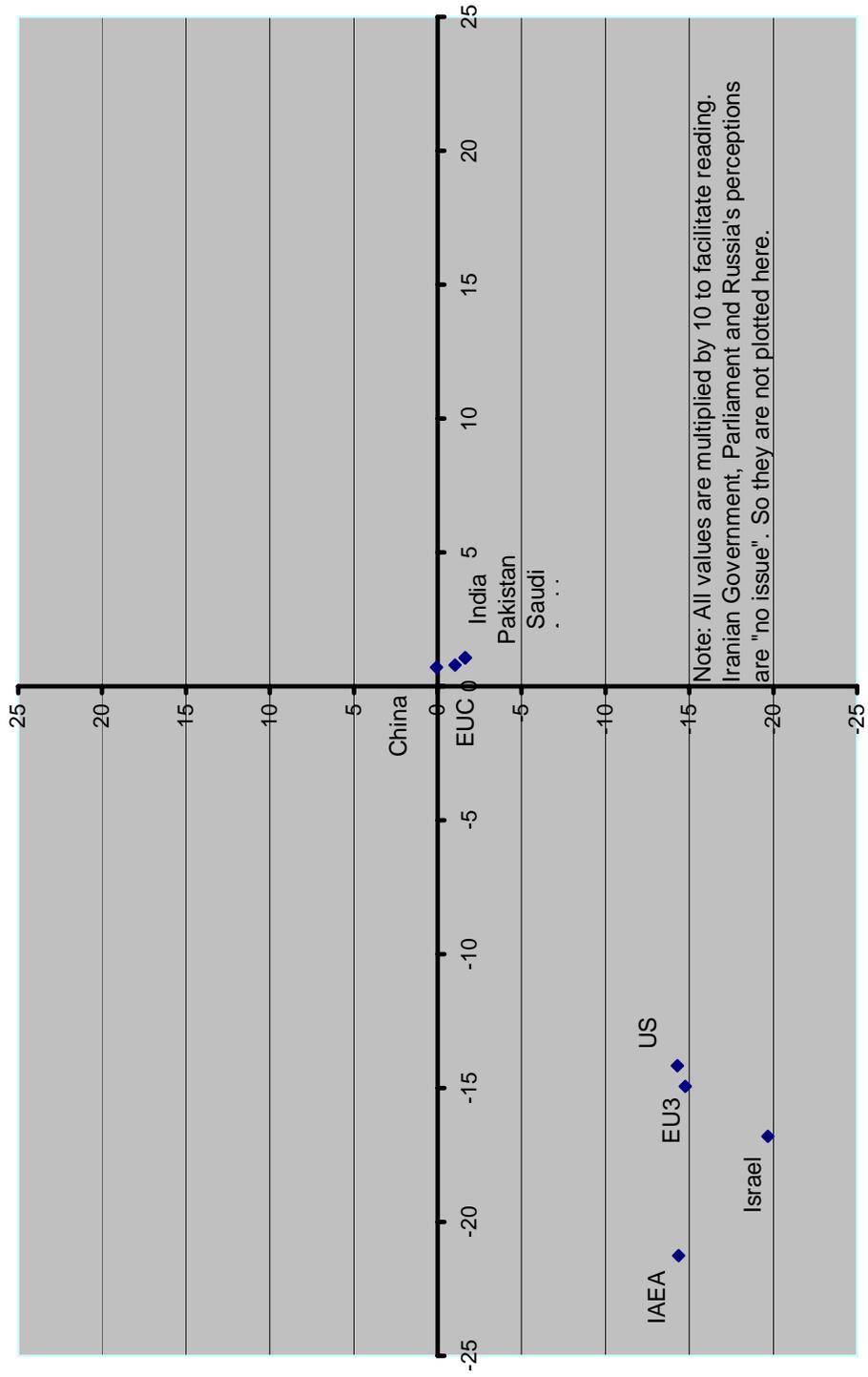
Figure 4-4-3-3 Expected Utility Assesments: Iranian Government's Perceptions

Note: All values are multiplied by 10 to facilitate reading. Iranian SL, Parliament and Russia's perceptions are "no issue". So they are not plotted here.
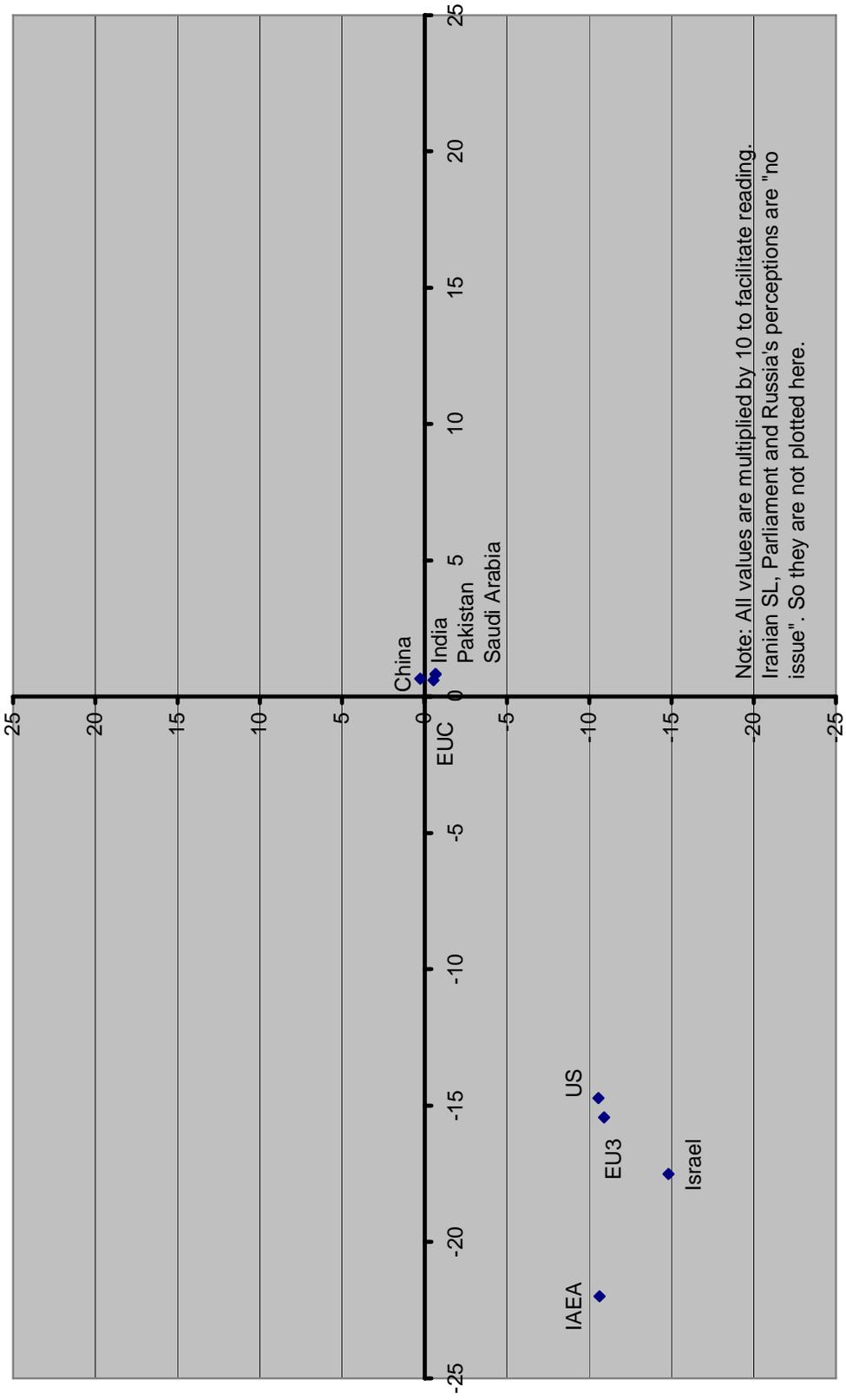
Figure 4-4-3-4 Expected Utility Analysis: IAEA's Perceptions

Note: All values are multiplied by 10 to facilitate reading. US and EU3's perceptions are "no issue". So they are not plotted here.

Focal Group

Others
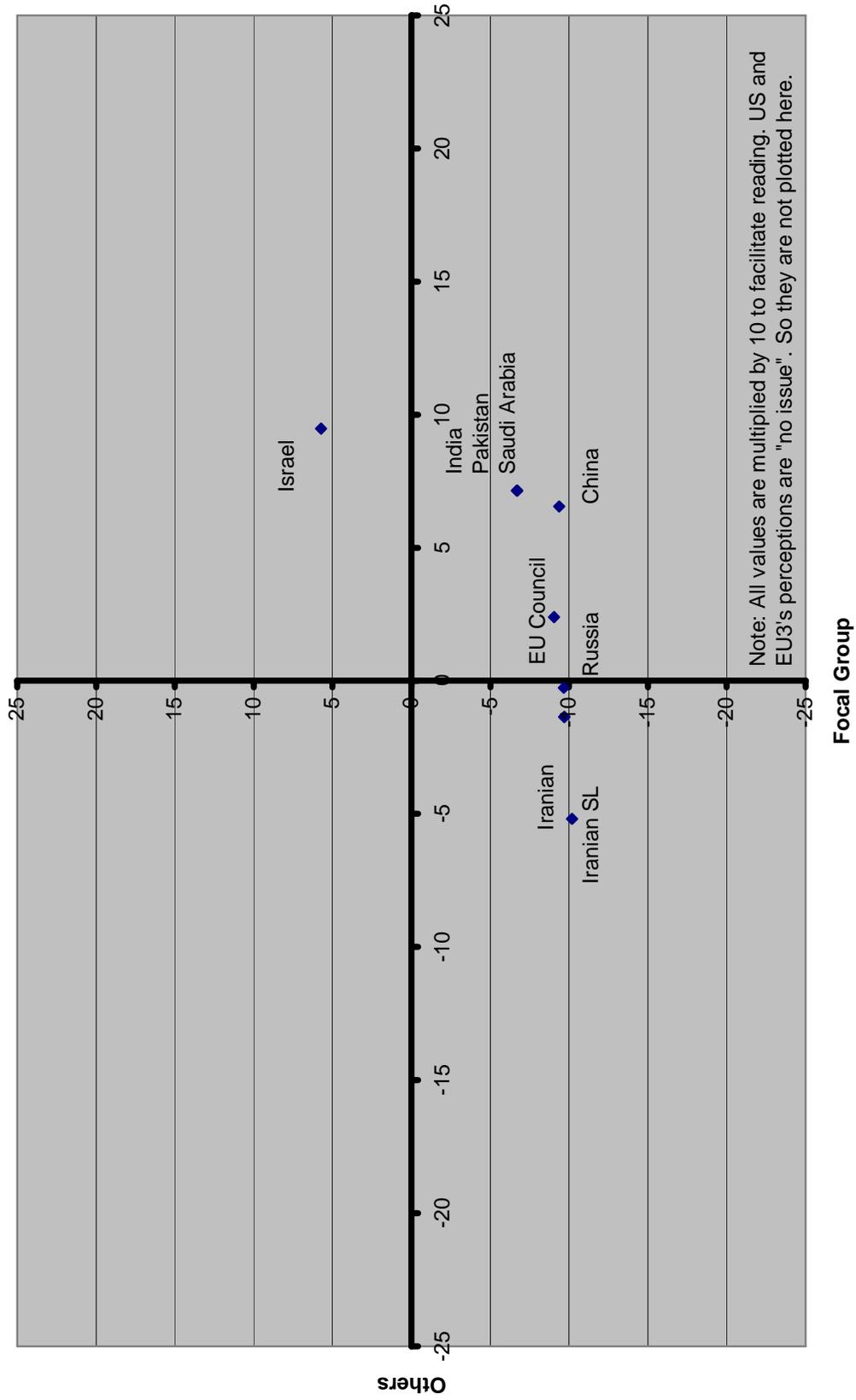
Figure 4-4-3-5 Expected Utility Assesments: United States' Perceptions

Note: All values are multiplied by 10 to facilitate reading. IAEA and EU3's perceptions are "no issue". So they are not plotted here.

117
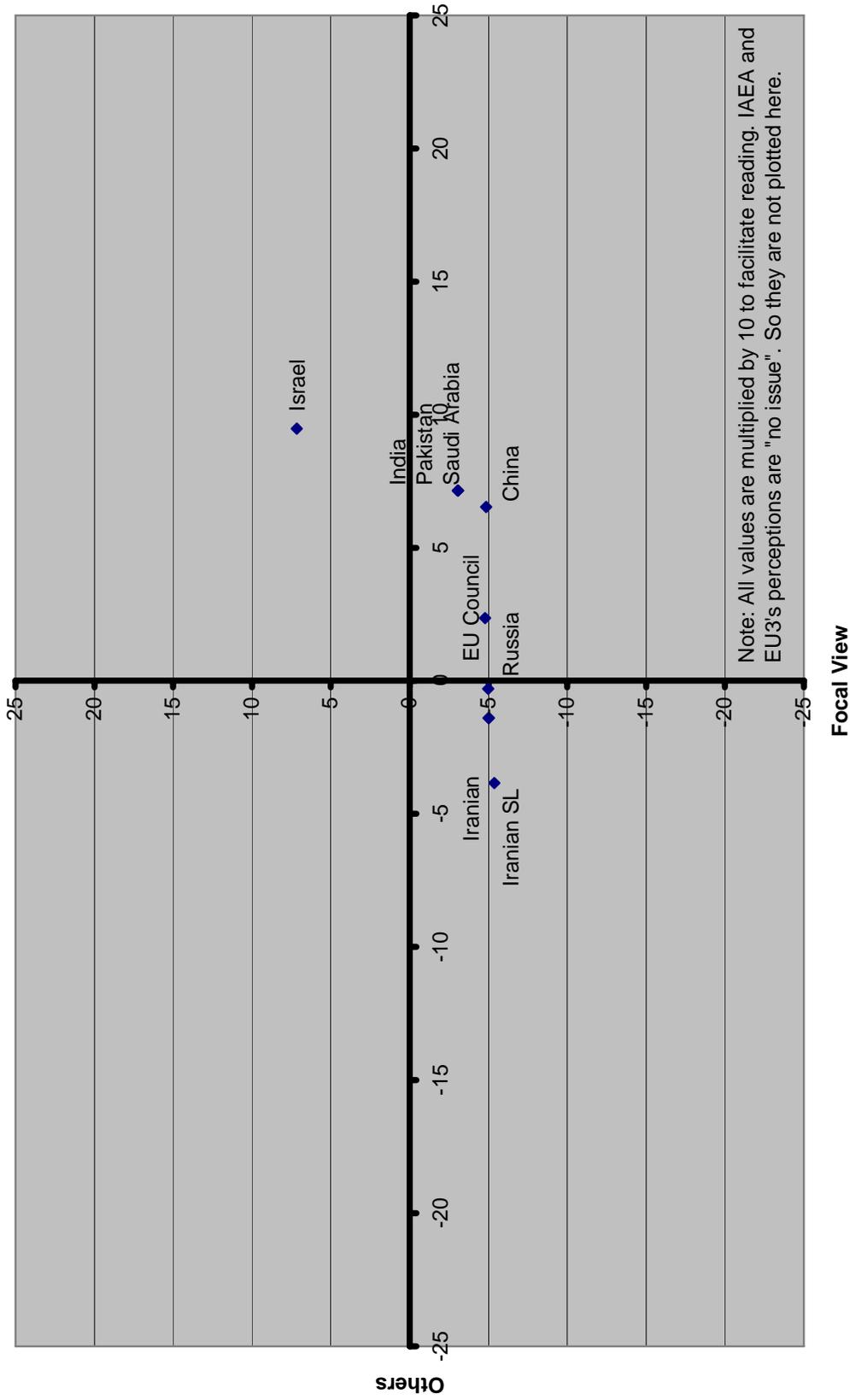
Figure 4-4-3-6 Expected Utility Assesments: EU3's Perceptions

118
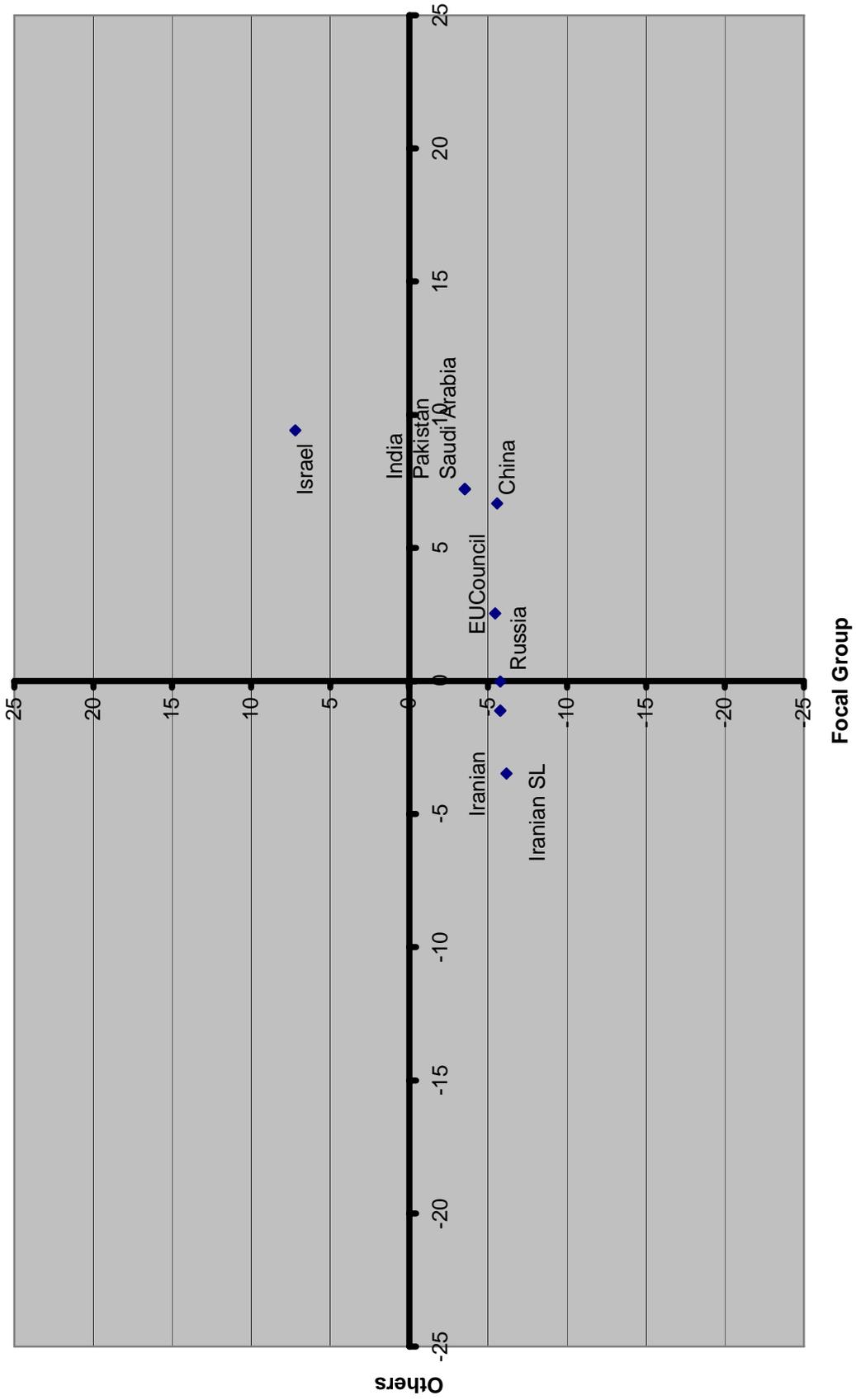
Figure 4-5-1 I's View Over Time
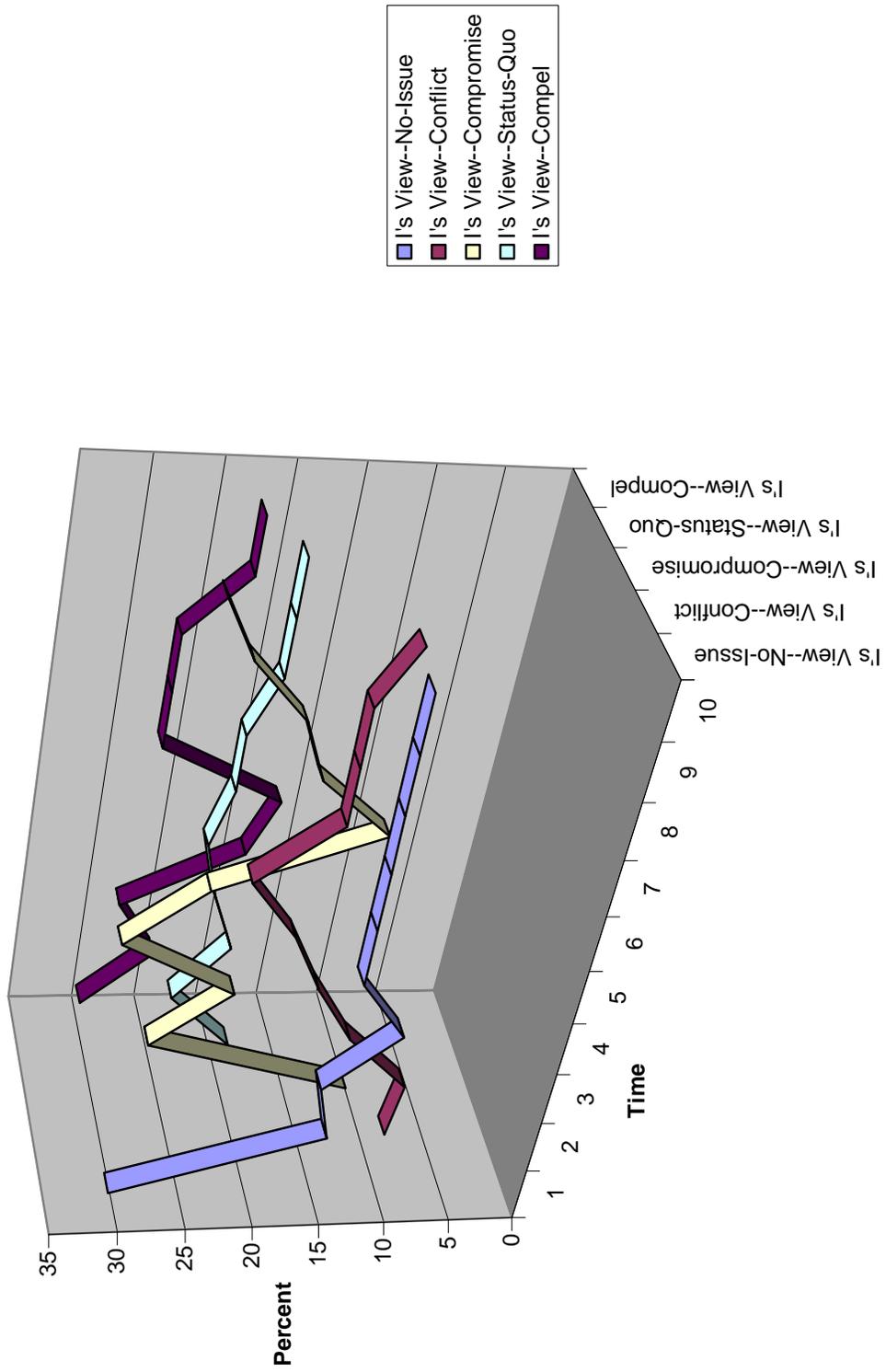
Figure 4-5-2 I's View Over Time

Legend:
- I's View--No-Issue
- I's View--Conflict
- I's View--Compromise
- I's View--Status-Quo
- I's View--Compel
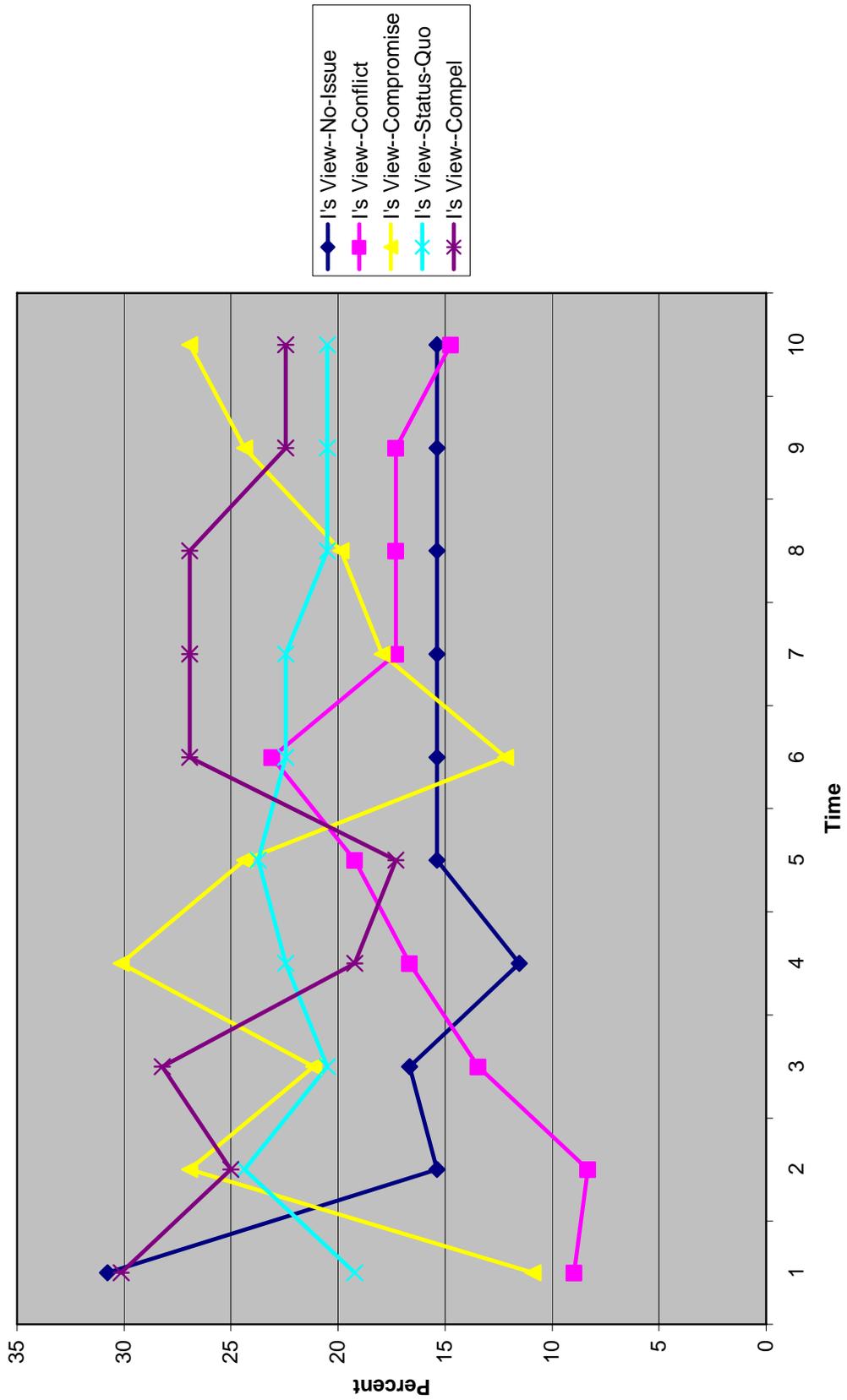
Figure 4-5-3 Joint View Over Time

Legend:
- Joint View--No-Issue
- Joint View--Conflict
- Joint View--Compromise
- Joint View--Status-Quo
- Joint View--Compel

Axes:
- Percent (0, 5, 10, 15, 20, 25, 30, 35)
- Time (1, 2, 3, 4, 5, 6, 7, 8, 9, 10)
- Views (Joint View--No-Issue, Joint View--Conflict, Joint View--Compromise, Joint View--Status-Quo, Joint View--Compel)

121
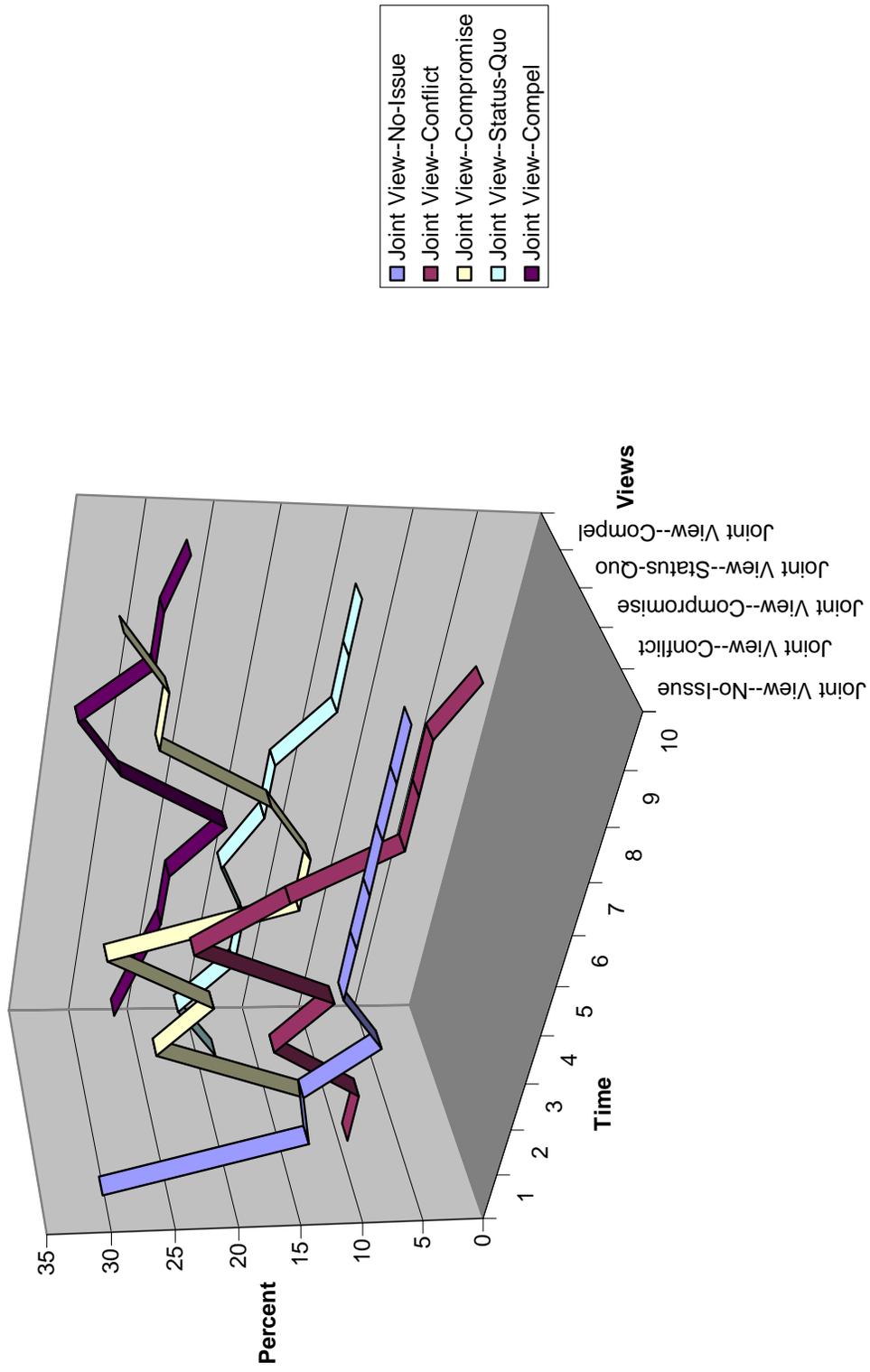
Figure 4-5-4 Joint View
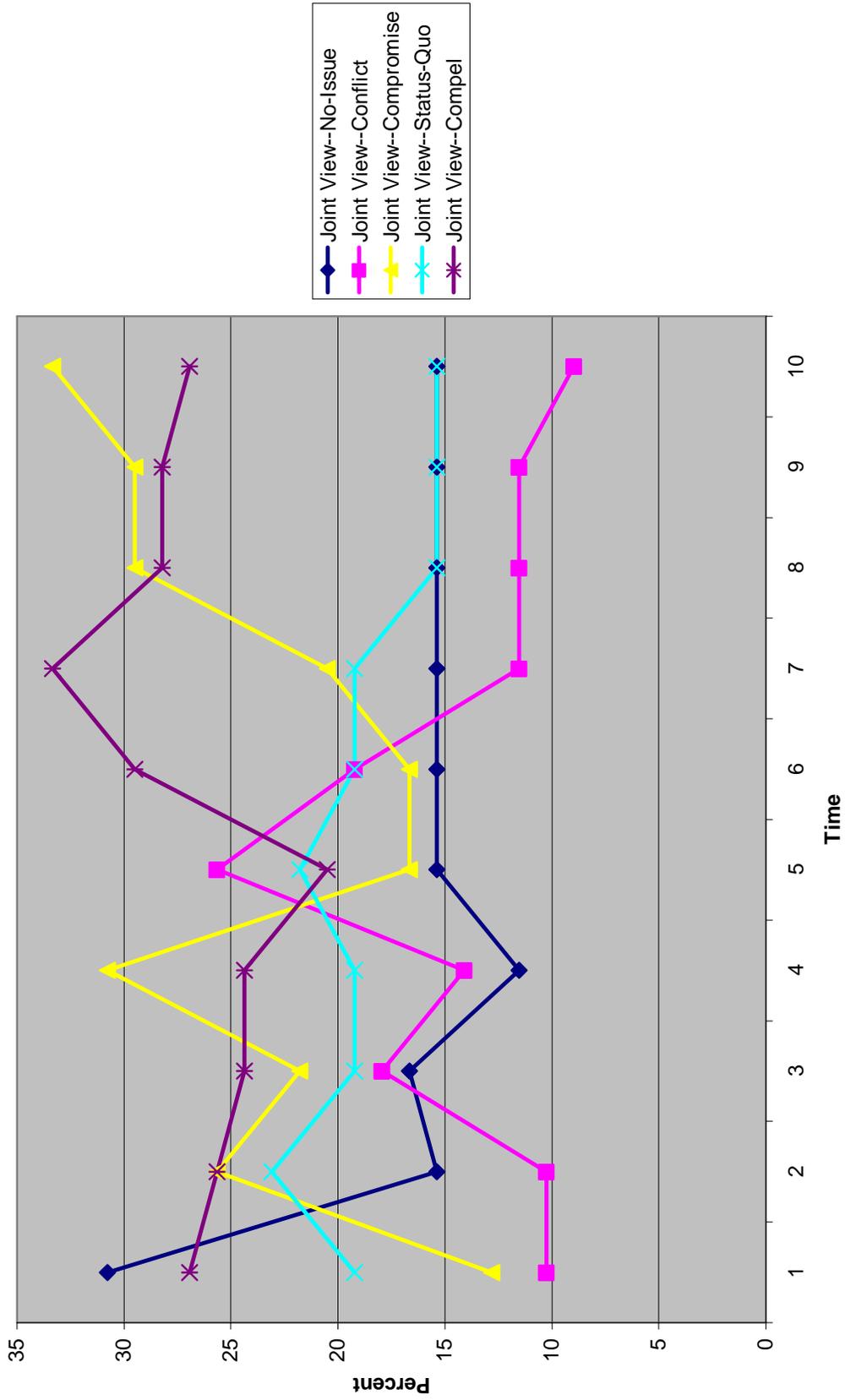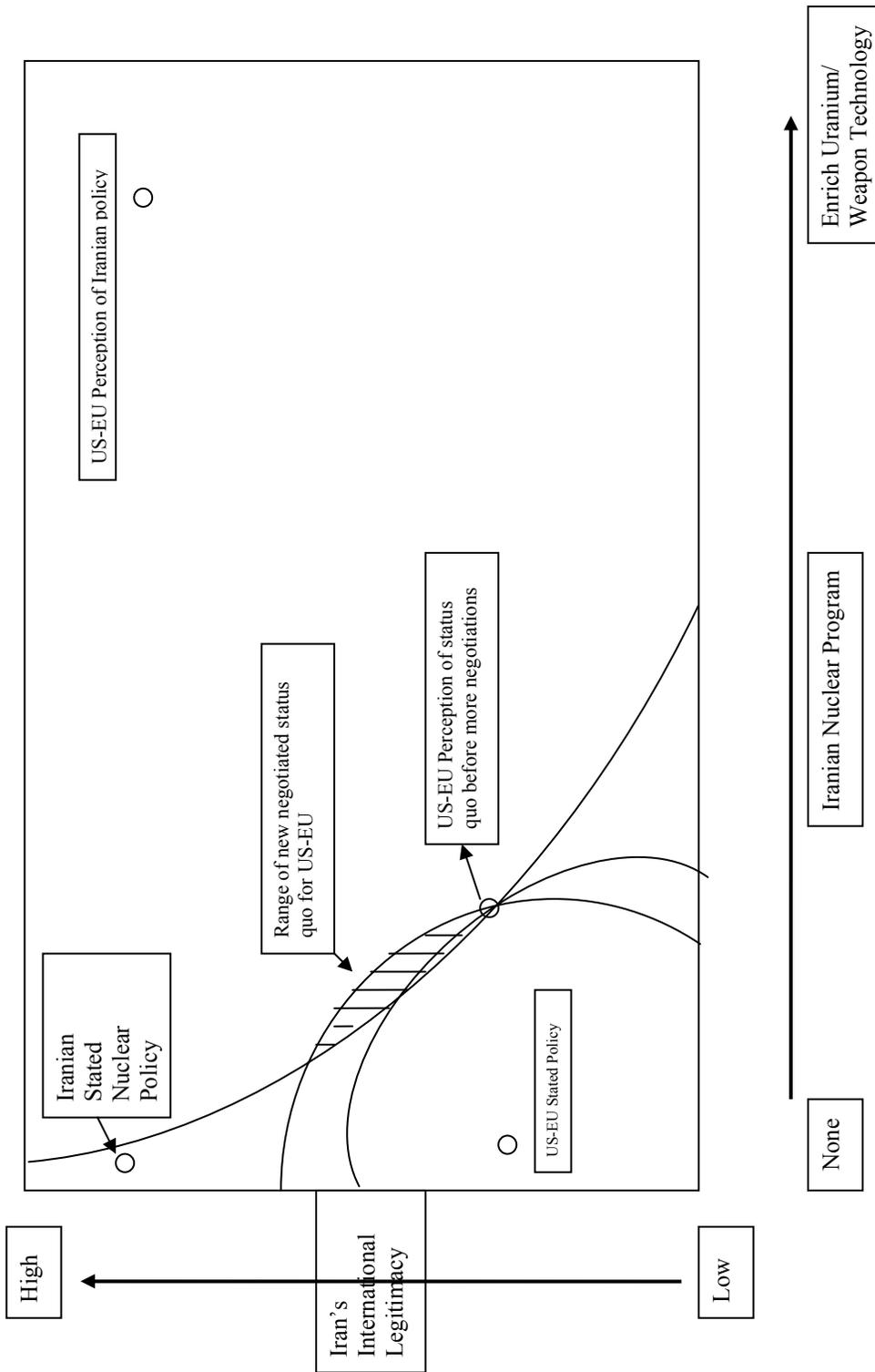
Figure 20. Manipulating Perceptions and Changing the Winsets (Adapted from Bueno de Mesquita 2003).

CHAPTER 5
THE NAGORNO-KARABAKH CRISIS AND THE BAKU-TBILISI-CEYHAN (BTC) PIPELINE

Plan of the Chapter

This chapter focuses on the Azerbaijan-Armenia conflict about the autonomous region of Nagorno-Karabakh and this conflict's possible influences on the BTC pipeline's security. Section one discusses Azerbaijan's energy resources and the importance of the pipeline for energy security. Section two introduces the Nagorno-Karabakh crisis with its brief history and various dimensions. In the next section, I present the expert-generated data and a discussion of positions of the actors and their capabilities. Section four is a discussion of the results derived from different methods of analyses. In the last section, forecasts and policy implications are discussed.

5.1 Azerbaijan's Energy Resources and the BTC Pipeline

5.1.1 Introduction

Azerbaijan is a nation with a Turkic and Muslim majority population located in the South Caucasus. It was briefly independent from 1918 until 1920. In 1920, the Red Army invaded Azerbaijan, which remained part of the USSR until its independence in 1991.

Oil has been an integral part of Azerbaijan's economy for more than a millennium. Ninth century Arab traveler Baladzori (Al Belazuri Ahmad, died ca. 892) wrote that the economy and daily life of Absheron (a part of Azerbaijan very close to

the capital Baku) have been integrated with oil production for a long time (Mir-Babayev 2002). In the Western literature, Marco Polo wrote in the fourteenth century that oil from Baku was being used for lighting and as an unguent for therapeutic healing that was exported to Near Eastern countries. In 1846, more than a decade before oil was discovered in Pennsylvania, Azerbaijan began drilling oil on the Bibi-Heybat field. By the beginning of the twentieth century, Azerbaijan produced more than half of the world's oil reserves (Yergin 1991, Mir-Babayev 2002).

With the collapse of the Soviet Union, the Azerbaijani parliament declared its independence in 1991. After becoming independent, the country found more opportunities to realize its vast hydrocarbon resources. In 1994, the Azeri government signed what is called "the contract of the century", a deal worth 7.4 billion US dollars with a Western consortium led by British Petroleum (BBC News 2006).

Azerbaijan's energy resources are mostly located at its Caspian Sea basin. Its GDP grew by 10.2 percent to 8.5 billion US dollars in 2004 due to foreign investors' projects for tapping the country's oil and gas resources. Foreign direct investment in Azerbaijan rose by 30 percent to 4.4 billion in the same year, and 97 percent of those investments was made in the hydrocarbon sector (Energy Information Agency [EIA] 2005).

According to a report by the United States Congressional Research Service (CRS) (2002), the whole Caspian region holds 18 to 34 billion barrels of oil, which roughly corresponds to 1.8 to 3.3 percent of the world's proven oil reserves. This amount roughly equals to US oil reserves of about 22 billion barrels. Azerbaijan holds the second-biggest share with estimated resources of 4 to13 billion barrels

(Kupchinsky 2005). According to EIA statistics, Azerbaijan's oil production averaged 319,000 barrels per day in 2004. Until 2004 the production had risen by approximately 4 percent per year (EIA 2005).

Azerbaijan also has vast natural gas resources. Its proven gas reserves are 30 trillion cubic feet (Tcf), and it has a potential for larger reserves. In 2004, the country reported 177 billion cubic feet of natural gas production (EIA 2005). This sizeable amount of gas and oil production and further capabilities to boost it make Azerbaijan an important player on the global energy markets.

(Figure 5-1-1-1 and 5-1-1-2 about here)

5.1.2 The Baku-Tbilisi-Ceyhan (BTC) Pipeline

Before the collapse of the USSR, the only way for Caspian oil and gas to reach Europe and other markets was via the Russian pipeline system. The EU and US supported the principle of multiple export routes for Caspian countries to stop their dependence on Russia regarding energy matters (EIA 2004). One way to achieve that goal was building pipelines that pass through the territories of 'friendlier' governments. The countries in the Caucasus region that maintained good relations with the EU and US have been Azerbaijan, Georgia and Turkey. Through the territory of these three countries passes the BTC pipeline. Map 1-2-1 shows where the BTC pipeline passes through while Map 1-2-2 presents another pipeline that carries natural gas to the EU market.

(Map 5-1-2-1 and 5-1-2-2 about here)

The idea of building such the BTC pipeline was based on strategic considerations. The oil and gas from the region had been exclusively transported through Russia and Iran, which are both nations with an uneasy relationship to the Western world. Moreover, reducing the dependence on OPEC energy has emerged as a major policy tendency in the EU and US in the past decade (Study on Energy 2004). Hence, this pipeline is essential when it comes to securing the world markets' energy supply, which is especially true for Western countries. Consequently, the US supported a British Petroleum-led consortium to build a pipeline carrying Azeri oil from the Caspian to the Turkish Mediterranean port of Ceyhan while crossing Georgia's capital Tbilisi. The 1762 kilometers pipeline cost about 4 billion US dollars and was inaugurated in May 2005 (Peuch 2005).

With the BTC, Azerbaijan will be able to export 1 million barrels of crude oil from the Azeri-Chirag-Guneshli offshore oilfields in the Caspian Sea. At first view, 1 million barrels do not seem to be very significant as measured by the world production of 80+ million barrels a day. However, given the rigid supply and demand balance in the oil markets in the last years, the BTC may prove to be an important tool in reducing Western dependence on Middle Eastern energy.

5.1.3 BTC Pipeline Security

The Caucasus has been a volatile region since the collapse of the Soviet Empire. It has always been populated by numerous ethnicities and religious groups living together in a relatively small area and holding territorial claims against each other. This led to various ethno-religious conflicts between the end of the Ottoman rule and

the beginning of Soviet influence in the early twentieth century. These conflicts, which were frozen for about 70 years, reappeared after the collapse of the Soviet Union at both the domestic and interstate levels. Azerbaijan and Georgia, where the BTC passes through, have been involved in these conflicts.

These two countries also face major terrorist threats. Both of them are American allies in the war on terrorism. International terrorist groups, such as al-Qaeda, are reported to plan attacks on the BTC pipeline. According to Azerbaijan's national security minister Namiq Abbasov, their intelligence services have obtained information that regional insurgents and al-Qaeda are planning attacks on the pipeline (Luft 2004).

State actors in the region may pose a threat to the security of the pipeline, as well. Luft (2004) suggests of all countries in the region Iran is probably the state actor with the strongest motivation to harm the operation of the pipeline. Iran is extremely agitated by the United States' presence in two of its neighboring countries, Afghanistan and Iraq, and perceives the US war on terror as an attempt to penetrate into the region in order to diminish Iran's clout and control Caspian oil and gas. It is suggested that Iran may use its web of proxies or some terrorist groups that it supports in order to achieve its aims. This scenario appears to be even more plausible when considering that in the last decades the PKK bombed some other pipelines in southern Turkey several times.

On the other hand, Russia has been exceptionally critical of the BTC pipeline ever since its early planning stages and used a lot of political capital to prevent its creation, for it sees the BTC pipeline as a tool to gain control over the relationship

between Moscow and the former USSR states. This economic project is another step against the reunification of the former Soviet states. Hence, Russia might consider supporting groups that can sabotage the pipeline or might even ally with Iran to push for an alternative route southward out of the Caspian to the Persian Gulf.

But the already existing ethno-religious conflicts in the region appear to be a more probable threat to the BTC's security compared to less likely scenarios like e.g. Iran's or Russia's support for terrorist organizations to bomb the pipeline. Many area experts criticized the building of a pipeline in a region so volatile. Amineh and Houweling (2004) suggest the BTC pipeline is closely positioned to seven conflict areas in the region (distances from the pipeline are given in parentheses):

1. Nagorno-Karabakh, Armenia-Azerbaijan conflict (15 kilometers),

2. Georgia vs. South Ossetia (55 kilometers),

3. North Ossetia vs. Ingushetia (220 kilometers),

4. Georgia vs. Abkhazia (130 kilometers),

5. Russia vs. Chechnya (110 kilometers),

6. Russia vs. Dagestan (80 kilometers),

7. Turkey vs. PKK (The pipeline comes close to the areas where the PKK is influential).

Among these conflicts, the following analysis focuses on the two that are positioned closest to the pipeline - the Nagorno-Karabakh and Georgia-South Ossetia conflicts. Due to the fact that the pipeline goes through several conflict areas, it was argued that when economic efficiency and a state's strategic concerns collide, the latter will prevail (Amineh and Houweling 2004). That is, even though building a

pipeline in such a dangerous area did not seem efficient, the Bush administration still pushed for the project due to the US's and EU's goal to diversify resources and diminish the Russian and Iranian influence in the region. All in all, the BTC pipeline requires protection by both Western powers, like the EU and US, as well as local people to remain a viable option for Western energy security.

5.2 The Nagorno-Karabakh Crisis

Nagorno-Karabakh is an Armenian-dominated part of Azerbaijan. The conflict over the region is the oldest of the post-Soviet era conflicts. It began in 1988 with inter-communal violence between Christian Armenians and Azeri Muslims in the region. Many parties are involved in conflict resolution processes. Russia has been a natural player in the negotiations; also, the OSCE's Minsk Group has been actively involved in conflict resolution efforts. Especially states with closer ties to Azerbaijan and France, which has historically close relations with Armenia, have been active in the Minsk Group. On the other hand, Turkey has been a staunch ally of Azerbaijan ever since the beginning of the conflict and took a hard line against Armenia by freezing all economic and diplomatic relations and closing borders in1988. Hopes for a resolution were at the highest point in the mid-1990s, but at that time no results were achieved. Since the early 2000s, the US and Russia have been pushing Armenia and Azerbaijan for a long-term resolution.

5.2.1 Early History of the NK Crisis 1988-1996

In the late 1980s, with Perestroika's freedom being felt significantly in the Soviet republics, Karabakh Armenians began to express their grievances against the Azeri government. Their accusations included that the Azeris denied them cultural rights, resettled Muslims in the territory shifting the demographic balance, and suspicions that the region was not given enough resources due to its predominantly Armenian ethnic make-up. Consequently, the Armenians began requesting to make the region part of Armenia instead of Azerbaijan in the USSR system. The Armenians of the Union Republic of Armenia supported this suggestion and attempted to convince the Soviet leadership and specifically Michael Gorbachev. But Armenian demands to unite with Nagorno-Karabakh were decisively rejected by the Gorbachev administration (Matveeva 2002). As a result, the nationalist Armenians in the Karabakh region formed the Karabakh Committee and pressured the government of the Union Republic of Armenia. Under that pressure, the Armenian Supreme Soviet supported Karabakh Soviet's (the local assembly in the region) call for unification. But to counter possible international pressure, Armenia did not formally unite with Nagorno-Karabakh. Instead, the regional government declared independence in 1991. Nagorno-Karabakh is not recognized by any state in the world, including Armenia, and remains as a secessionist territory (Matveeva 2002). Its status has not been determined as of yet.

On its way to independence the region witnessed one of the bloodiest ethno-religious conflicts in the ex-Soviet republics. As early as February 1988, inter-

communal violence began erupting. First, some 200,000 Armenians (340,000 according to Armenian sources) fled Azerbaijan to Armenia and Russia. In 1989, 185,000 Azeris and 11,000 Muslim Kurds were expelled from Armenia to Azerbaijan (Matveeva 2002).

The Soviet administration first attempted to mediate the conflict by sending peacekeeping troops and setting up an administration in the region ruled directly from Moscow. The Soviets also supported the Azerbaijani cause and provided military assistance because they perceived the conflict as an act of aggression by the Armenians. Until the spring of 2002, Azeri forces supported by the Soviet military gained the upper hand, but in the take-over struggle of the strategic corridor between the region and Armenia (Lachin corridor), Armenians gained the upper hand again. In late 1992 and early 1993, Armenian forces gained most of the territories of Nagorno-Karabakh, including the districts of Agdam, Fizuli, Jebrail, Kelbaijar, Kubatly and Zangelan. In 1993 and 1994, Azeri forces made a last effort resulting in a humiliating defeat that caused 500,000-600,000 Azeris to flee their homes. In 1994, Moscow brokered a cease-fire between the parties. The number of deaths caused by inter-communal violence and war is estimated to be about 20,000 to 30,000, and more than one million became internally displaced people (IDPs) (BBC News 2006).

5.2.2 The Situation Since 1994

The situation after 1994 benefited the Armenian cause in the region. Since then, the Nagorno-Karabakh is under Armenian control. The Republic of Armenia built strong ties with Karabakh Armenians. Even the first president of independent Armenia,

Levon Ter-Petrosyan is from the Nagorno-Karabakh region. Armenians built a highway that connects Armenia and the region. Economic and political ties are being strengthened. Even the conscripts of the Armenian army have to spend half of their duty time in Nagorno-Karabakh (Matveeva 2002).

Also, the change of the Russian position has helped Armenia to keep the territory under control for such a long time. In the post-Soviet period, the Russian elite switched sides and provided Armenia with large amounts of military equipment that shifted the balance of power between Armenia and Azerbaijan to the favor of the former. Azerbaijan did not dare to attack the region again to retake the control.

The Armenian economy, however, has been hampered by the blockades of Azerbaijan and Turkey in the last twelve years. Armenia, as a landlocked country, has connections with the outside world only through Iran and Georgia. Azerbaijan has excluded Armenia from every energy development and transportation project in the Caspian Sea region, including the BTC pipeline.

In December 1996, the OSCE's Minsk group drafted a settlement that suggested protecting Azerbaijani territorial integrity and providing the highest degree of autonomy for Nagorno-Karabakh. Armenians rejected the proposal, which was a diplomatic victory for Azerbaijan. By the late 1990s, foreign direct investment and energy resource development in Azerbaijan benefited the Azeri cause. The growing influence of the oil lobby on Western governments balanced out the power of the Armenian Diaspora in the US and Europe, especially in France. The US and France became more involved in the resolution of the conflict and have become co-chairs of the OSCE Minsk Group along with Russia. Their efforts to make a peace agreement

in 1997 were halted by the negative view Armenian public opinion had of the OSCE resolution, which suggested a self-governing status for Nagorno-Karabakh and the protection of Azerbaijan's territorial integrity. The Armenian President Levon Ter-Petrosyan had to resign in February 1998 due to public pressure against his support of the resolution (Matveeva 2002).

The OSCE Minsk Group further facilitated the talks between Armenia and Azerbaijan in the early 2000s. In 3-7 April 2001, the so-called Key West talks were held in the US. The Azerbaijani leader Heidar Aliyev and the Armenian leader Robet Kocharian met under the mediation of the US, France and Russia. Although the Key West talks gave momentum to the peace efforts, the final result of the talks was disappointing. Considering the domestic political implications, i.e., pressure from hardliners in both countries, the two leaders did not succeed in making a comprehensive arrangement (BBC News 2006).

Issues of contention between the parties are diverse but can be briefly summarized as follows:

1. Azerbaijan publicly announced it will grant the highest degree of autonomy to Nagorno-Karabakh. The position of the Armenians and Karabakh's de facto government on the issue is that they will not accept the region's subordination to Baku. They insist on complete sovereignty of the region.

2. Azerbaijan demands that Armenia withdraw from the territory around the region (other than Nagorno-Karabakh) that belongs to the former. According to Matveeva (2002), Armenia accepts the return of most of the

territories it is currently occupying in principle but wants to keep those
territories as a bargaining chip for Nagorno-Karabakh's security.

3. The Armenian side demands security guarantees in case they withdraw
   from the region, such as the right to return its military whenever
   necessary, long-term presence of international peacekeepers and the
   permanent maintenance of the Lachin corridor that connects Nagorno-
   Karabakh to Armenia.

4. Azerbaijan insists all IDPs, especially the ones expelled from the
   predominantly Azeri city of Susha in Nagorno-Karabakh, must be allowed
   to return. According to various sources, Susha's population was
   predominantly Azeri before the 1992 war; however, for Armenians it is a
   historically Armenian city that has a symbolic meaning.

5. There is a disagreement over the schedule for resolving the crisis. The
   Minsk group advocated a phased approach that was accepted by
   Azerbaijan. However, the Armenian side favors what it calls a "package"
   solution and argues that the phased approach will only benefit Azerbaijan,
   given that Armenia has to give up territory at the first stage. There is a
   huge lack of trust between the parties that makes the resolution of the
   conflict more difficult Matveeva (2002).

These issues are still debated today. The presidents of Armenia and
Azerbaijan have announced their plan to meet yet another time this June to discuss
the status of the region (Khachatrian 2006).

5.3 Analysis with the Expected Utility Model

5.3.1 Expert-Generated Data

Two experts, one specializing on ex-Soviet Republics in the Caucasus and the other focusing on politics in the region in general independently produced the coding of the actors, positions, capabilities and issue salience scores for the Nagorno-Karabakh issue. I have received the coding from the senior academic on December 27, 2005. The detailed instructions the experts received can be found in the research design section and appendices of this dissertation. The experts were asked the following question: What are the attitudes of stakeholders toward Nagorno-Karabakh's autonomy issue? The coding by the senior analyst is as follows:

(Table 5-3-1-1 about here)

5.3.2 Positions of the Actors

According to the area experts, various Azeri, Armenian and international actors are involved in the bargaining process about the future of the Nagorno-Karabakh conflict. According to the senior expert whose coding I used for this analysis, there are 17 actors who are all stakeholders and actively involved in the conflict resolution processes. Figure 5-3-2-1 presents the policy positions of these actors about Nagorno-Karabakh's sovereignty on a continuum.

(Figure 5-3-2-1 about here)

First of all, let us evaluate the Azeri and Armenian actors' position that matter most due to the salience they naturally associate with the issue. Since the Nagorno-

Karabakh region was lost to the Armenians in the 1994 war, the current Azeri

government of Ilham Aliev came to power with the promise of retaking control over

the region at all costs. However, this appears to be a rhetorical tool used for domestic

political purposes. President Aliev has suggested Azerbaijan supports a more

moderate position on this issue that proposes a high degree of autonomy for the

Nagorno-Karabakh region. One can verify President Aliev's position after his latest

visit to Washington D.C. in April 2006. In his meeting with the Bush administration,

Aliev made it clear that Azerbaijan will never allow its territory to be partitioned, yet

also added that the region's people have the right to some form of sovereignty:

> "The residents of Nagorno-Karabakh have the right to high
> sovereignty in the framework of the territorial wholeness of
> Azerbaijan which is apparent in many other countries including
> the European countries. They must be given distinct political
> guarantees that the peace in the region will be everlasting."
> (Armenian News Agency, 27 April 2006)

What this stance means in the real conflict resolution processes is not

extremely obvious due to the secretive nature of bargaining between the two

countries' presidents led by the OSCE Minsk group. However, some sources and our

area experts verified that the Azeri government's position implies the following

clauses.

According to the EIU (Economist Intelligence Unit)[1], although the official

details of the meetings of fall 2005 were not released, a "credible scenario" suggests

that Azerbaijan's position is to take back six (or all seven) territories that Armenia

holds, in return for agreeing a plebiscite in Nagorno-Karabakh in 10 or 15 years.

Azerbaijan also is speculated to agree on bringing peacekeeping forces to the region

---

[1] *Country Report on Armenia.* November 1, 2005.

from countries, in addition to the OSCE Minsk Group members. The government's position value for this simulation is (60) in a continuum where (100) equals full independence and (0) denotes no sovereignty for Nagorno-Karabakh.

While President Aliev's position aims to reach a resolution, the Azerbaijani opposition parties, at least in rhetoric, are against making any concessions to Armenia or the Armenians of Nagorno-Karabakh. Currently, Azerbaijan's political system is not considered a democracy.[2] According to the 2005 Freedom House Report on Azerbaijan, the country is considered to be "not free" with extremely low scores for democratic rights[3] civil rights[4]:

> "Throughout 2004, Ilham [Aliev] attempted to put his stamp on Azerbaijani politics and consolidate his position among the country's ruling elite, but his rule did not reflect any significant change in governance. The level of official control of key institutions remained high, while the political opposition, which was weak and splintered, provided little serious challenge to the country's leadership. … More than 40 political parties are registered. However, most opposition parties are weak and are based on personalities rather than political platforms, and they have been unable to unite in lasting alliances to challenge the government. Hundreds of opposition activists and leaders were detained by police in the weeks surrounding the October 2003 presidential election. The repressive posture of the authorities continued throughout 2004." (Freedom House 2005)

Despite their weaknesses, the opposition in Azerbaijan uses strong rhetoric against the government on the Nagorno-Karabakh issue. The opposition parties[5]

---

[2] A brief presentation of less-known actors involved in this bargaining such as Azerbaijani Opposition, Armenian Opposition and Nagorno-Karabakh Government and Opposition can be found at the appendix of this chapter.

[3] In a continuum from 1 to 6, 6 being least free, Azerbaijan got 6 (Freedom House 2005).

[4] In a continuum from 1 to 6, 6 being the least civil rights granted to the people, Azerbaijan got 5 (Freedom House 2005).

[5] Two main opposition groups in Azerbaijan are Azadliq (Freedom) Bloc and YeS (Yeni Siyaset [New Politics]).

generally direct their criticism against the Aliev administration's possible approval of a referendum in Nagorno-Karabakh. Leader of the YeS opposition alliance and former presidential aide Eldar Namazov argued that agreeing to a referendum conflicts with Azerbaijan's national interests: "There is no way to conduct a referendum in the occupied territories and every single attempt to do so is doomed" (Abbasov 2005). The Azeri opposition has a point in their criticism of the government that the Armenians of Nagorno-Karabakh had already voted for secession and that there is no reason they would vote against it in a future referendum. That is, agreeing to a referendum might mean the permanent loss of the territory. Also, the opposition leaders suggest that the constitution of Azerbaijan does not allow for partial referenda. Any held referendum must be voted on in all Azerbaijan, not only in Karabakh. Most of the opposition parties are also against granting substantial autonomy to the region. Therefore, their position value was determined as 20 in this simulation, which refers to a withdrawal of Armenian troops from all occupied territories, the return of refugees to Nagorno-Karabakh and granting limited autonomy to the region.

The position of the Armenians and Nagorno-Karabakh Armenians are very close to one another. The stated position of the Armenian government suggests that the people of Nagorno-Karabakh must be given a right to exist within safe borders and that a link to the Republic of Armenia (i.e. the Lachin corridor) must be maintained. Although in recent years their position appears to be slightly less rigid than it used to be, the Armenian government supports full sovereignty of the region. However, the Armenian government also seems to accept that a legal union with the

region is very difficult despite the de facto union that is already established. For that reason, the position of the Armenian government equals (90), which refers to supporting an independent Nagorno-Karabakh. However, the Armenian opposition takes a more nationalist stance and supports full unification with Nagorno-Karabakh, which the value of (100) refers to on our continuum. Especially the idea of a plebiscite within the next 10 to15 years is harshly criticized by the opposition due to the fear of a population change with the return of refugees, as well as higher birth rates on the Azeri side.

On the other hand, the aim of Nagorno-Karabakh's de facto government is to unite with the Republic of Armenia. The government, composed of Armenian nationalists, has been supportive of this idea for more than a decade. One of the few points of disagreement between Nagorno-Karabakh and Armenia might concern Nagorno-Karabakh's participation in negotiations as a party. Naturally, the Nagorno-Karabakh government does not want to accept any solution that does not involve the government itself in the bargaining. On the other hand, the opposition in the country criticizes the government for being so rigid about their stance on unification and suggests full independence is enough for the time being. The Nagorno-Karabakh de facto government's position is represented by a 100 while the opposition's position takes the value 90 on the policy continuum.

All Muslim countries in the region support the position of the Azerbaijani government (i.e. 60). These countries include Turkey, Iran, Kazakhstan and Turkmenistan. Among these four, Turkey and Iran are more important than the other two due to the power they can use in the region. Turkey is the staunchest supporter of

Azerbaijan for a number of reasons. First and foremost, Turkey sees Azerbaijan as a great opportunity for securing its own energy. The BTC pipeline provides Turkey with more energy than it can use in the immediate future. Second, cultural and religious ties are extremely strong between the two countries. This affects public opinion and thereby respectively the Turkish governments' support for Azerbaijan in its efforts to keep its territory intact. Third, Turkey also has its own problems with Armenia. Mass killings of Armenians during World War I are labeled as 'genocide' by Armenia while Turkey defines these deaths only as casualties of war. Hence, Turkey has both politically and militarily supported Azerbaijan in its efforts to solve the problem and maintained a blockade against Armenia that has been very harmful to the Armenian economy.

Iran, on the other hand, has a more complex stance. It appears to support Azerbaijan, however, this support is not as stable as Turkey's. First, Iran has always been concerned about Azerbaijan's expansion, given that more Azeris live in Northern Iran (or Southern Azerbaijan) than in Azerbaijan. Second, due to the effective blockade by Turkey and Azerbaijan, Armenia had to approach Iran for trade reasons, given that it is one of two exits (along with Georgia) left for the country with the outer world. Third, Iran is alarmed about the close relations between Azerbaijan and the US and America's growing influence in the region. Therefore, Iran's support for Azerbaijan can change in the future as it did in the past.

Being embargoed and blockaded by the energy-rich Azerbaijan and Turkey, which has the only dynamic economy in the region, resulted in Armenia having no one to turn to but Russia. Russian firms penetrate into most of the civilian and

defense industry deals in Armenia at the expense of the latter. The Russian position, however, is not one of the pro-Armenian. Although there exist cultural and religious ties, as well as economic relations between the two, Russia pledged neutrality in the conflict during recent years. This is not surprising at all considering the Russian policy on ethnic conflicts in the ex-Soviet republics after the breakup of the Union. Russia gains from the status quo in the region and therefore does not use its weight to favor either one of the actors. That means the area expert correctly identified the Russian position as the status quo position with a value of 80. The Russian position on the issue might change depending on the specific conditions of future events in the region. If Russia feels even more displeased with the US's control over the region, it might support Azerbaijan in order not to lose it to America as an ally as it did Georgia in the Rose Revolution.

All Western countries and institutions (France, the EU [other than France], the EU Council, US) and the UN Secretary General support a more median position between Azerbaijan and Armenia. The European countries and the US are very concerned about stability in the region, mostly due to its energy resources and its role as a diverse source other than the Middle East. For the EU, the conflict also has a regional security dimension. Especially the US supports the Aliev government despite its human rights violations and fraud elections, because it perceives Azeri oil as one way to reduce the dependency on Middle Eastern oil. Since the mid-1990s, the US has used enormous political capital to make BTC possible with British Petroleum, despite Russia's and Iran's opposition, economic difficulties and criticism that building the pipeline was economically inefficient.

The position of these four actors (i.e. 70) suggests that they do not approve Armenia's involvement in the Nagorno-Karabakh conflict in the 1990s and the annexation of territory by conquest. However, they do support self-determination rights for the Armenian population in the region.

Lastly, Georgia's position on this issue is remarkable. The expert assigned a position value of 45 to Georgia. Georgians and Armenians are culturally close communities. However, this affinity does not turn into full support for Armenia. In fact, Georgia is closer to the Azeri opposition, which favors control of the region by Baku. This is because of the economic ties with Azerbaijan, as well as Georgia's own ethnic problems. In a small country like Georgia, the government has had to deal with three different ethnic secessionist groups ever since its independence. Consequently, Georgia does not want Nagorno-Karabakh's independence to serve as an example for its own ethnic minorities. But Georgia also has its own Armenian minority in Javakitha, which makes it to have a more balanced position. For fear of Armenia's possible provocation, Georgia supports Azerbaijan's territorial integrity with some form of autonomy granted to Nagorno-Karabakh.

5.3.3 Capabilities Distribution

The absolute and effective capability distribution figures represent one major reality of international politics in the Caucasus: the rivalry between Russia and the US. Figure 5-3-3-1 shows the absolute capability distribution, both Russia and US have 9 percent each of the total capabilities in this bargaining situation. Due to the energy resources in the Caspian Sea, a rivalry similar to the Cold War continues between the two superpowers in the region. Their power share is even bigger than that of the

actors whose territory is at stake, such as Azerbaijan or the Nagorno-Karabakh administration. Considering how small these countries and territories are, it is not surprising they have less capabilities than Russia or the US. The only other country with an equally high degree of capability is France owing to its role in the OSCE Minsk Group. The UN Secretary General has 7 percent of the total absolute capabilities.

(Figure 5-3-3-1 about here)

The Azerbaijani, Armenian and Nagorno-Karabakh governments hold the second-biggest share of capabilities, each having 7 percent. A further group of actors that have a considerable amount of influence in this bargaining process includes the EU, the EU Council and Turkey. The EU and the EU Council, due to their rather new and weaker foreign policy institutions, have only 6 percent each of the total power. Turkey has 6 percent of the total power, as well, for it is so closely located to the conflict region and has good relations with Azerbaijan.

In this case, effective capabilities are fairly similar to absolute capabilities. The reason is that the salience of the issue is extremely high for many of the actors involved. The salience scores in Figure 5-3-3-2 show that the issue is of highest importance to the natural actors such as Azerbaijan, Armenia and Nagorno-Karabakh, as well as to the actors that are concerned with energy security, like the US, EU, Russia and Turkey. Therefore, the discount effect of salience does not cause as much variance as it did in the Iranian case discussed in the previous chapter. The US, Russia and France have 10 percent each of the capabilities, while Azerbaijan, Armenia and Nagorno-Karabakh hold 8 percent, respectively. Figures 5-3-3-3 and 5-

3-3-4 show the effective capability distribution in this bargaining. Russia and US appear to be the most influential actors. Figure 5-3-3-4 shows that the most influential six actors, i.e. Russia, US, France and Azeri, Armenian and Nagorno-Karabakh governments, hold the 54 percent of the capabilities compared to the other eleven actors who hold 46 percent of total capabilities.

(Figures 5-3-3-2, 5-3-3-3 and 5-3-3-4 about here)

Lastly, in this section a discussion of the effective capabilities distribution by positions is relevant. The positions of all actors involved in this bargaining process can be summarized under the following five general standpoints: pro-Azerbaijani, pro-Armenian, status quo, hardliners (against the autonomy of the region) and moderate positions.

(Figures 5-3-3-5 and 5-3-3-6 are about here)

Figures 5-3-3-5 and 5-3-3-6 show how effective capabilities in this game are distributed across policy positions. The biggest position bloc is the moderate position coalition, which includes the US, EU, the EU Council, the UN Secretary General and France. This shows that world opinion favors a solution that respects Azerbaijan's territorial integrity and self-determination rights for Nagorno-Karabakh Armenians. The second-biggest bloc is comprised of pro-Armenian actors, which includes all Armenian and Nagorno-Karabakh stakeholders. The third bloc holds a pro-Azerbaijan position and consists of the Azeri government, Turkey, Iran, Kazakhstan and Turkmenistan. Although the number of actors is high in this group it still falls behind the Armenian bloc, for Kazakhstan's and Turkmenistan's effective capabilities equal almost zero. The fourth group consists of the hardliner Azeri opposition and Georgia,

145

which does not favor the independence movements in the region on account of its own domestic ethnic conflicts. Lastly, only Russia favors the status quo, holding 10 percent of the effective power.

5.3.4 Position Min-Max and Averages

The expected utility analysis for the Iranian nuclear issue was completed in eleven rounds. The model is based on the following logical implication: If the status quo appeared to be more preferable for all of the involved actors than offering additional proposals to the others and continuing the bargaining process, the expected utility analysis was ended and the median voter's position at this point won.

The simulation minimum and maximum values explain the range of bargaining positions during the simulation. The bargaining began with a position range of 80. Armenian nationalists of Nagorno-Karabakh began the bargaining with a position of 100 at round 1, while the Azeri nationalist opposition started at 20. After round 4, the position range was down to 22 and eventually to 20 at the end of the tenth round, as the actors with marginal positions were convinced to shift to more moderate positions. At round 10, the position closest to the pro-Armenian takes a value of 80, which equals favoring the status quo. The lowest position value is a 59, which is very close to the Azeri government's compromising deal. The position average did not show much variance and maintained a value around 65.

(Figure 5-3-4-1 about here)

5.4 Results

5.4.1 The Bargaining Process

The expected utility analysis concluded that the bargaining on the sovereignty of the Nagorno-Karabakh region is likely to favor the position of the Azerbaijani government. That is, the Azeri government's proposal, which calls for a return of the refugees and the withdrawal of Armenian military from the region in return for a plebiscite in ten to fifteen years, is likely to be the resolution of the conflict. At the end of round 11, the median voter position 60 exactly equals the position of the Azeri government. However, considering how the median voter position changed between 60 and 70 from round 6 to 11, one might conclude that the US's position – a return of the refugees, pulling out Armenian troops and a plebiscite as soon as possible - is not a remote possibility.[6]

The stability analysis of the simulations suggests this prediction is fairly stable. An analysis of the joint perceptions shows the conflict perception that might indicate instable results is very low. Only 8.82 percent of the total perceptions in this analysis contain conflictual perceptions. This means that the likelihood of actors pursuing more bargaining in a conflictual manner is quite low. Especially an interstate conflict is less likely to happen in the near future for Nagorno-Karabakh.

(Table 5-4-1-1 about here)

On the other hand, the biggest share of the interacted perceptions fell into the 'compel' category. 33 percent of the total interacted perceptions are 'compel'. This

---

[6] In fact, the first forecast of the model is the United States position (70) at round 2. The dynamics of the game changes substantially as Armenian Government, France and Georgia come closer to the Azeri resolution; and Armenian Opposition, Iran and Nagorno-Karabakh de facto government comes close to the Russian position. To show these dynamics, all eleven rounds are presented.

means that credible proposals offered during the bargaining compelled other actors to shift their positions in favor of the proposing actors' offers. An analysis of the changes in the Armenian actors' positions during the bargaining shows that this result is not surprising. The specific shifts will be discussed in the next sections. Another interesting result is that 30.14 percent of all perceptions suggest 'no issue' among the actors at the end of bargaining round 11. This means there is a considerable number of actors that agree on each others' positions, i.e. their positions are identical, which suggests the prediction is fairly stable.

Figure 5-4-1-1 shows how the bargaining on the sovereignty of Nagorno-Karabakh evolved over several rounds. At the end of round 11, the prediction of the model is 60, which equals the Azerbaijani government's position. Only at round 3, the Russian status quo position was dominant. After round 6 until the end of the round 11, the median voter forecast changed ranging from 60 to 70.

(Figure 5-4-1-1 and 5-4-1-2 about here)

Figure 5-4-1-2 shows the forecasts for each round and the linear trend line drawn for the forecast values. The linear trend line suggests the more extended the bargaining, the better for the Azerbaijani government's position. That is, beginning from the first round, the position trend develops downward, which favors the Azerbaijani government; the "no sovereignty" position equaled zero, while the position favoring full independence took a value of 100. This shows that uncompromising positions of Armenian actors, both in and out of Nagorno-Karabakh, are only harmful to their own interests. Towards the end of the bargaining, more actors are compelled to support the Azerbaijani position or positions close to it. These

actors included the government of the Republic of Armenia, which was compelled to shift toward the Azerbaijani government's position 60 after round 4. A more thorough analysis of the bargaining and positions shifts will explain this point further.

5.4.2 Position Shifts

The expected utility software produced a total of 196 pages of output showing the position shifts and specific bargaining proposals of the actors for this simulation. Due to space constraints only the most significant proposals and shifts by the actors are summarized below.

Perhaps the most important shift in this simulation was made by the government of the Republic of Armenia. At round 3, the Armenian government received a credible proposal from the Azerbaijani administration. This led to a considerable shift in the position of the Armenian government from 87.89 to 60 (numerically 27.89 points shift). After the fourth round, the Armenian government did not change its stance and maintained its compromise position. The Armenian opposition, on the other hand, already made a significant shift at round 1. Russia made a credible proposal to the Armenian opposition to shift to its own position of supporting the status quo, and the attempt was successful. These two changes seem plausible when considering the real life situation in the conflict. Armenia is economically overwhelmed owing to the Azeri and Turkish blockades, and it is possible that the Armenian government wants to break the encirclement to become involved in regional economic developments. The Armenian opposition, seeing that their quest for unification is almost impossible to realize, might want the status quo to

continue, a situation in which they still have a de facto union with Nagorno-Karabakh.

The EU and the EU Council's shifts are remarkable, as well. Between the rounds 6 and 10, they switch between their original position of 70 and the Azeri government's position of 60. There are three actors that led to the EU and EU Council's shifting positions. In rounds 7 to 11, the European actors were constantly being moved to shift their position back and forth; first the US achieved a change to 70, which equals the US position, and then in each following round the two European actors were impacted to change their position to 60 by Azerbaijan and France. Eventually, the EU and the EU Council were compelled by the French and Azeri proposal. Although France's initial position was 70 at round 1, it was convinced by the Azeri government to shift to 60. After this shift, France also called for the proposal that suggests a future plebiscite in the region.

When we analyze the shifts of two very important regional actors, Iran and Georgia, the expected utility analysis' predictions appears to go in line with the real politics of the region. At round 2, Iran was given a convincing proposal by Russia, the Nagorno-Karabakh government and the Armenian opposition to switch to the status quo position. This makes perfect sense in real life when considering the power struggle and the blocs of influence in the region. Russia and Iran are trying to break the US's and EU's influence. Given that Russia favors the status quo and supports Armenia economically, and Armenia and Nagorno-Karabakh are in desperate need of Iran's support due to the economic blockage, it is possible that Iran will take a stance

against the position of Azerbaijan, Turkey and Georgia, which have relatively better relations with the US and EU.

On the other hand, although Georgia favored an even harder line regarding Nagorno-Karabakh's autonomy, the Azeri government's diplomatic efforts seem likely to win Georgia's support. At round 2, Georgia is compelled by the Azerbaijani government to shift to Azerbaijan's position. Lastly, the UN Secretary General accepted a credible proposal from Russia and shifted from a moderate position (70) to the status quo position.

Azerbaijan, Turkey (pro-Azeri position) and the US (moderate position) did not change their position during the bargaining.

5.4.3 Analysis of Perceptions and Stability

In this part, the evolution of perceptions, as well as the perceptions of the actors involved at the end of bargaining, will be discussed.

Figures 5-4-3-1 and 5-4-3-2 show how the perceptions of each actor i have evolved over the bargaining rounds. Note the peak points for the variable *i-conflict* (that represents the percentage of conflict perceptions in total perceptions for each actor) can be seen at rounds 4, 5 and 6. The explanation for the occurrence of this peak is simple: As the Armenian government decided to compromise with Azerbaijan and the rest of the Western and international actors, another group of actors, namely the domestic opposition, the Nagorno-Karabakh government, Iran and Russia perceived their relation with Armenia as more conflictual.

(Figures 5-4-3-1 and 5-4-3-2 about here)

151

However, in terms of forecasting conflicts that can turn into diplomatic or military crises, the joint perceptions variable is a better estimator. Figures 5-4-3-3 and 5-4-3-4 represent the evolution of joint perceptions during the bargaining rounds. Although in round 4, right after the Armenian government compromises, the joint conflict perceptions reach a peak, the joint perceptions percentage as part of the total perceptions is the second-lowest at the end of round 10. At this point, the two most joint perceptions subscribed to by actors are "compel" and "no issue". These joint perceptions results suggest that the results are fairly stable and conflict is less likely to appear in the future regarding Nagorno-Karabakh's sovereignty issue.

(Figures 5-4-3-3 and 5-4-3-4 about here)

Figures 5-4-3-5 through 5-4-3-12 present the individual actors' perceptions at the time of completion of the expected utility analysis. Reviewing these perceptions is valuable for anticipating the future of the Nagorno-Karabakh sovereignty issue. The evaluation of the total perceptions gives a general idea about the stability of the results. In this case, the total perceptions are less conflictual. However, if an important actor, such as Russia, perceives its relations with other actors in a conflictual way, depending on changes at the domestic and systemic levels, it might decide to challenge the other actors about the issue in the future.

(Figures 5-4-3-5 through 5-4-3-12 about here)

I will begin with the perceptions of the EU and the governments of Azerbaijan, Armenia, France and Turkey (Figures 5-4-3-5 to 5-4-3-9), which are all very similar. At the end of the expected utility analysis, these actors were fairly satisfied with the outcome. For all five actors, no other actor's perception falls into

152

the upper right quadrant: i.e. these actors do not perceive a relationship prone to conflict with the rest. They see Kazakhstan and Turkmenistan as actors that are still convincible to shift to their policy position (see Figure 4-4-3-1). On the other hand, the EU and the other four actors sharing similar perceptions, observe a stalemate position with the Nagorno-Karabakh government, the Armenian opposition, Russia, UNSG, Iran and US. Although there is no agreement between the groups of actors, no actor rationally considers making a proposal to change the other's position. Making a proposal is more costly than the stalemate position.

The perceptions of the Nagorno-Karabakh government (see Figure 5-4-3-10) show that the actor is the least satisfied with the result of the bargaining. Naturally, Nagorno-Karabakh wants independence or unification, and as the Azerbaijan government's proposal wins the bargaining on the sovereignty issue, the government of the region perceives the relationships with all actors but four as conflictual. Those four actors are Russia, UNSG, the Armenian opposition and Iran, all of which support the continuation of the status quo rather than giving into the Azerbaijani and Western demands. The Nagorno-Karabakh government sees itself at odds with the remaining twelve actors. The least conflictual relationship it has is with the US government[7], which suggests a more moderate resolution, while the most conflictual relationship is with Azeri opposition.

(Figure 5-4-3-10 about here)

---

[7] One can see the mathematical representation of this relationship in figure 20. The US is the closest actor to the 0 point where Nagorno-Karabakh perceives "no-issue" with actors. On the other hand, as one actor goes to the more upper right points in the "conflict" quadrant, this shows their positions with the focal group is most different.

Lastly, the Russian and American perceptions on the issue will be discussed. Figure 5-4-3-11 shows the Russian perceptions after the expected utility analysis was completed. The figure shows fairly unsatisfied perceptions. Other than the status quo powers that share the same policy position, Russia perceives itself at odds with the rest of all actors, most of all with the EU, the EU Council and Azerbaijan. Russia also sees its relationship with the US as troubled.

The American perceptions on the issue also do not show an extremely satisfied actor. The US supports a more moderate solution with a plebiscite to be held rather earlier than later and disagrees with the Azerbaijani government's resolution. Therefore, it senses a stalemate situation with its usual allies like France, Turkey and Georgia, as well as with the Azeri government. The US expects the EU and EU council to acquiesce to its demands on the issue. On the more risky side of the story, the US has a perception of conflict with Russia, the Nagorno-Karabakh government, the Armenian opposition, UNSG and Iran. Hence, the US might prove to be a revisionist actor on this issue. The rivalry of these important actors and their joint perceptions that suggest conflict leads to the last part of this chapter, where the implications of this competition will be discussed.

(Table 5-4-3-1, Figure 5-4-3-11 and 5-4-3-12 about here)

5.5 Discussion

In a comprehensive analysis of the lines of conflict in the South Caucasus and Central Asia, Oliker and Szayna (2003) suggest that an interstate armed clash among smaller states is one of the most likely types of conflict in a region where the US-Turkey dyad

154

is likely to counter Russia-Iran dyad's influence. The results of this chapter confirm

their analysis and expand on it, finding that the EU will be an actor of vital

importance in this region, as well.

The analysis suggests that the Nagorno-Karabakh sovereignty issue is likely to

involve a resolution that favors the Azeri government. A second likely outcome could

involve the US's position that only differs in favoring an earlier plebiscite in the

region. Both of these options run contrary to Russian interests in the region. The

expected utility analysis suggests that Russia will draw a fair amount of support for

the continuation of the status quo from the states that generally have problematic

relations with the EU and US. Armenian nationalists and Iran are likely to support

Russia's actions in the region. Although the forecast in this chapter proposes a

peaceful resolution to the problem, one might conclude that the Russian foreign

policy and military developments will be very influential in the region.

Table 5-4-4-3-1 shows the verbal representation of these perceptions by actors

at the end of round 11. Russia's "focal view" is one of a "conflict" with US, EU and

the EU Council. In fact, other than the actors that Russia successfully switched to her

position, the former perceives a conflictual relationship with the rest of the actors.

However, the interesting point here is that, the joint perceptions show that Russia

expects to given in or compromise in favor of the rivals in this bargaining.

Azerbaijan, on the other hand, is likely to further develop its relations with the

EU, US and Turkey for its best interests. Its close military cooperation with Turkey

and economic collaboration with the US and European countries is resolute.

Azerbaijan government has a perception of conflict with the Azeri opposition and

expects Russia and Iran to given in to her demands at the end of round 11 (See 5-4-4-3-1).

The job the Armenian government has is perhaps the most difficult. It seems like the Armenian administration will be willing to compromise in order to find a resolution to the Nagorno-Karabakh conflict, which would allow Armenia to end the economic and border isolation in the region. Achieving this goal, however, would be exceptionally difficult due to the nationalist pressures in both Armenia and Nagorno-Karabakh. Russia and Iran perceives "conflict" with Armenian government as Table 5-4-3-1 suggests.

5.6 Appendix. Information on Involved Azerbaijani and Armenian Actors

Nagorno-Karabakh Government and Opposition

Ever since the end of the 1994 war, the Nagorno-Karabakh autonomous region has been under the protection of Armenian soldiers. Its self-declared sovereignty is not recognized by any state or entity, including the Republic of Armenia. In 1997, the first elected president of the region, Arkady Gukasyan, was installed, and he was reelected in 2002. The highest legislative and representative body in the de facto independent region is the National Assembly. The Nagorno-Karabakh government's ultimate aim is to join the Republic of Armenia, although the Armenian government resisted these pressures for fear of an international backlash and further conflicts with Azerbaijan.

Currently, there are three political parties in the National Assembly, these are the Democratic Party of Artsahk (12 seats), Free Motherland (10 seats) and ARF/Movement 88[8] (3 seats), non partisans (8 seats) (Office of the Nagorno-Karabakh Republic in the USA, 2006).

Azeri Opposition

Inspired by the revolutions in Ukraine, Georgia and Kyrgyzstan, Azerbaijan's opposition has been using hostile tactics against the Aliev government since the beginning of 2005 (Abbasov and Ismailova 2005). The three main opposition parties are the Musavat, the Popular Front and the Democratic Party. They formed a coalition for the November 2005 parliamentary elections but did not win against President Aliev. Nagorno-Karabakh is one of the issues that pressure the government. The

---

[8] Armenian Revolutionary Federation (HHD) and Movement 88.

opposition parties are considerably more nationalistic than the government when it comes to Nagorno-Karabakh. They also are more critical of peace proposals and argue that some form of autonomy is enough for the region and more concessions would only be humiliating (Van der Schriek 2003).

Opposition in the Republic of Armenia

In recent years, the opposition in Armenia has been pressuring the government and President Kocharian to initiate democratic reforms. The Armenian opposition was expected to increase their effectiveness of fostering democratization by jumping on the bandwagon of democratic revolutions in the region, like in Ukraine and Georgia,.Yet, the Hanrapetutiun (Republic) Party (23 members), the National Unity Party (9 seats), the Ardarutiun (Justice) bloc (14 members) and Orinats Yerkir (12 members), which are among the most influential parties in the parliament have not been very successful in establishing more democratic rights in the country (National Assembly of Armenia Website 2006). They tend to take a more hardliner position when it comes to the Nagorno-Karabakh issue. The opposition parties, for example, are against troop withdrawals from the region and also against holding another plebiscite. They argue that there was one plebiscite held in 1991, in which the independence option prevailed. They also claim that further referenda will only help Azerbaijanis, who have higher birthrates (Khathacrian 2005).

Table 5-3-1-1 The Expert Generated Data.

Actor	Resource (1-100)	Position (0-100)	Salience (1-100)
Azeri Government (Aliyev)	80	60	100
Azeri Opposition Bloc (Azadlıq)	60	20	100
Armenian Government (Kocharyan)	80	90	100
Armenian Opposition	60	100	100
De facto N-K Government (President Ghukasian)	80	100	100
N-K Opposition (Babayan)	60	90	100
Russia	100	80	100
United States	100	70	100
France	100	70	90
Turkey	60	60	100
UN Secretary General	80	70	80
EU (Other than France)	60	70	60
EU Council(High Representative Havier Solana)	60	70	60
Iran	40	60	70
Georgia	50	45	90
Kazakhstan	10	60	10
Turkmenistan	10	60	10

Table 5-4-1-1 Stability Summary Tables for Round 11

Perceptions (percent): Expected proportion by the model for relationship between

actors based on perceptions.

No Issue[9]	Conflict	Compromise	Status Quo	Compel
30.14706	30.88235	0.735294	23.52941	14.70588

Interaction of Perceptions (percent): Predicted proportion by the model for

relationship between actors based on interaction of perception.

No Issue	Conflict	Compromise	Status Quo	Compel
30.14706	8.823529	22.79412	5.147059	33.08823

---

[9] No issue denotes the percentage of relationships in that actors already agree on policy positions and see no conflict issue.

Table 5-4-3-1 Verbal Summary of Perceptions at Round 11

FocalGroup	RivalGroup	FocalView	RivalView	JointView
Russia	NKGov	No Issue	No Issue	No Issue
Russia	ArmeOpp	No Issue	No Issue	No Issue
Russia	UNSG	No Issue	No Issue	No Issue
Russia	Iran	No Issue	No Issue	No Issue
Russia	USA	- Conflict	- Stalemate	+ Compel
Russia	EUCouncil	+ Conflict	+ Stalemate	+ Compel
Russia	EU	+ Conflict	+ Stalemate	+ Compel
Russia	AzerGov	- Conflict	- Stalemate	+ Compel
Russia	ArmeGov	- Conflict	- Stalemate	+ Compel
Russia	Turkey	- Conflict	- Stalemate	+ Compel
Russia	NKOpp	- Conflict	- Stalemate	+ Compel
Russia	France	- Conflict	- Stalemate	+ Compel
Russia	Georgia	- Conflict	- Stalemate	+ Compel
Russia	Turkmen	+ Conflict	+ Compel	+ Compromise
Russia	Kazakhstan	+ Conflict	+ Compel	+ Compromise
Russia	AzerOpp	- Conflict	- Stalemate	+ Compromise
NKGov	UNSG	No Issue	No Issue	No Issue
NKGov	Iran	No Issue	No Issue	No Issue
NKGov	USA	- Conflict	- Stalemate	+ Compel
NKGov	EUCouncil	+ Conflict	+ Stalemate	+ Compel
NKGov	EU	+ Conflict	+ Stalemate	+ Compel
NKGov	AzerGov	- Conflict	- Stalemate	+ Compel
NKGov	ArmeGov	- Conflict	- Stalemate	+ Compel
NKGov	Turkey	- Conflict	- Stalemate	+ Compel
NKGov	NKOpp	- Conflict	- Stalemate	+ Compel
NKGov	France	- Conflict	- Stalemate	+ Compel
NKGov	Georgia	- Conflict	- Stalemate	+ Compel
NKGov	Turkmen	+ Conflict	+ Compel	+ Compromise
NKGov	Kazakhstan	+ Conflict	+ Compel	+ Compromise
NKGov	AzerOpp	- Conflict	- Stalemate	+ Compromise
ArmeOpp	Russia	No Issue	No Issue	No Issue
ArmeOpp	NKGov	No Issue	No Issue	No Issue
ArmeOpp	UNSG	No Issue	No Issue	No Issue
ArmeOpp	Iran	No Issue	No Issue	No Issue
ArmeOpp	USA	- Conflict	- Stalemate	+ Compel
ArmeOpp	EUCouncil	+ Conflict	+ Stalemate	+ Compel
ArmeOpp	EU	+ Conflict	+ Stalemate	+ Compel
ArmeOpp	AzerGov	- Conflict	- Stalemate	+ Compel
ArmeOpp	ArmeGov	- Conflict	- Stalemate	+ Compel
ArmeOpp	Turkey	- Conflict	- Stalemate	+ Compel
ArmeOpp	NKOpp	- Conflict	- Stalemate	+ Compel
ArmeOpp	France	- Conflict	- Stalemate	+ Compel
ArmeOpp	Georgia	- Conflict	- Stalemate	+ Compel
ArmeOpp	Turkmen	+ Conflict	+ Compel	+ Compromise
ArmeOpp	Kazakhstan	+ Conflict	+ Compel	+ Compromise

FocalGroup	RivalGroup	FocalView	RivalView	JointView
ArmeOpp	AzerOpp	- Conflict	- Stalemate	+ Compromise
UNSG	Russia	No Issue	No Issue	No Issue
UNSG	NKGov	No Issue	No Issue	No Issue
UNSG	ArmeOpp	No Issue	No Issue	No Issue
UNSG	Iran	No Issue	No Issue	No Issue
UNSG	USA	- Conflict	- Stalemate	+ Compel
UNSG	EUCouncil	+ Conflict	+ Stalemate	+ Compromise
UNSG	EU	+ Conflict	+ Stalemate	+ Compromise
UNSG	AzerGov	- Conflict	- Stalemate	+ Compromise
UNSG	ArmeGov	- Conflict	- Stalemate	+ Compromise
UNSG	Turkey	- Conflict	- Stalemate	+ Compromise
UNSG	NKOpp	- Conflict	- Stalemate	+ Compromise
UNSG	France	- Conflict	- Stalemate	+ Compromise
UNSG	Georgia	- Conflict	- Stalemate	+ Compromise
UNSG	Turkmen	+ Conflict	+ Compel	+ Compromise
UNSG	Kazakhstan	+ Conflict	+ Compel	+ Compromise
UNSG	AzerOpp	- Conflict	- Stalemate	+ Compromise
Iran	Russia	No Issue	No Issue	No Issue
Iran	NKGov	No Issue	No Issue	No Issue
Iran	ArmeOpp	No Issue	No Issue	No Issue
Iran	UNSG	No Issue	No Issue	No Issue
Iran	USA	- Conflict	- Stalemate	+ Compel
Iran	EUCouncil	+ Conflict	+ Stalemate	+ Compromise
Iran	EU	+ Conflict	+ Stalemate	+ Compromise
Iran	AzerGov	- Conflict	- Stalemate	+ Compromise
Iran	ArmeGov	- Conflict	- Stalemate	+ Compromise
Iran	Turkey	- Conflict	- Stalemate	+ Compromise
Iran	NKOpp	- Conflict	- Stalemate	+ Compromise
Iran	France	- Conflict	- Stalemate	+ Compromise
Iran	Georgia	- Conflict	- Stalemate	+ Compromise
Iran	Turkmen	+ Conflict	+ Compromise	+ Compromise
Iran	Kazakhstan	+ Conflict	+ Compromise	+ Compromise
Iran	AzerOpp	- Conflict	- Stalemate	+ Compromise
USA	Russia	+ Stalemate	+ Conflict	- Give In
USA	NKGov	+ Stalemate	+ Conflict	- Give In
USA	ArmeOpp	+ Stalemate	+ Conflict	- Give In
USA	UNSG	+ Stalemate	+ Conflict	- Give In
USA	Iran	+ Stalemate	+ Conflict	- Give In
USA	EUCouncil	No Issue	No Issue	No Issue
USA	EU	No Issue	No Issue	No Issue
USA	AzerGov	- Stalemate	- Stalemate	- Stalemate
USA	ArmeGov	- Stalemate	- Stalemate	- Stalemate
USA	Turkey	- Stalemate	- Stalemate	- Stalemate
USA	NKOpp	- Stalemate	- Stalemate	- Stalemate
USA	France	- Stalemate	- Stalemate	- Stalemate
USA	Georgia	- Stalemate	- Stalemate	- Stalemate
USA	Turkmen	+ Compel	+ Compel	+ Compel

FocalGroup	RivalGroup	FocalView	RivalView	JointView
USA	Kazakhstan	+ Compel	+ Compel	+ Compel
USA	AzerOpp	- Stalemate	- Stalemate	- Stalemate
EUCouncil	Russia	- Stalemate	- Conflict	- Give In
EUCouncil	NKGov	- Stalemate	- Conflict	- Give In
EUCouncil	ArmeOpp	- Stalemate	- Conflict	- Give In
EUCouncil	UNSG	- Stalemate	- Conflict	- Compromise
EUCouncil	Iran	- Stalemate	- Conflict	- Compromise
EUCouncil	USA	No Issue	No Issue	No Issue
EUCouncil	EU	No Issue	No Issue	No Issue
EUCouncil	AzerGov	- Give In	- Give In	- Give In
EUCouncil	ArmeGov	- Give In	- Give In	- Give In
EUCouncil	Turkey	- Give In	- Give In	- Give In
EUCouncil	NKOpp	- Give In	- Give In	- Give In
EUCouncil	France	- Give In	- Give In	- Give In
EUCouncil	Georgia	- Give In	- Give In	- Give In
EUCouncil	Turkmen	+ Conflict	+ Conflict	+ Conflict
EUCouncil	Kazakhstan	+ Conflict	+ Conflict	+ Conflict
EUCouncil	AzerOpp	- Give In	- Give In	- Give In
EU	Russia	- Stalemate	- Conflict	- Give In
EU	NKGov	- Stalemate	- Conflict	- Give In
EU	ArmeOpp	- Stalemate	- Conflict	- Give In
EU	UNSG	- Stalemate	- Conflict	- Compromise
EU	Iran	- Stalemate	- Conflict	- Compromise
EU	USA	No Issue	No Issue	No Issue
EU	EUCouncil	No Issue	No Issue	No Issue
EU	AzerGov	- Give In	- Give In	- Give In
EU	ArmeGov	- Give In	- Give In	- Give In
EU	Turkey	- Give In	- Give In	- Give In
EU	NKOpp	- Give In	- Give In	- Give In
EU	France	- Give In	- Give In	- Give In
EU	Georgia	- Give In	- Give In	- Give In
EU	Turkmen	+ Conflict	+ Conflict	+ Conflict
EU	Kazakhstan	+ Conflict	+ Conflict	+ Conflict
EU	AzerOpp	- Give In	- Give In	- Give In
AzerGov	Russia	+ Stalemate	+ Conflict	- Give In
AzerGov	NKGov	+ Stalemate	+ Conflict	- Give In
AzerGov	ArmeOpp	+ Stalemate	+ Conflict	- Give In
AzerGov	UNSG	+ Stalemate	+ Conflict	- Compromise
AzerGov	Iran	+ Stalemate	+ Conflict	- Compromise
AzerGov	USA	+ Stalemate	+ Stalemate	+ Stalemate
AzerGov	EUCouncil	+ Compel	+ Compel	+ Compel
AzerGov	EU	+ Compel	+ Compel	+ Compel
AzerGov	ArmeGov	No Issue	No Issue	No Issue
AzerGov	Turkey	No Issue	No Issue	No Issue
AzerGov	NKOpp	No Issue	No Issue	No Issue
AzerGov	France	No Issue	No Issue	No Issue
AzerGov	Georgia	No Issue	No Issue	No Issue

FocalGroup	RivalGroup	FocalView	RivalView	JointView
AzerGov	Turkmen	No Issue	No Issue	No Issue
AzerGov	Kazakhstan	No Issue	No Issue	No Issue
AzerGov	AzerOpp	+ Conflict	+ Conflict	+ Conflict
ArmeGov	Russia	+ Stalemate	+ Conflict	- Give In
ArmeGov	NKGov	+ Stalemate	+ Conflict	- Give In
ArmeGov	ArmeOpp	+ Stalemate	+ Conflict	- Give In
ArmeGov	UNSG	+ Stalemate	+ Conflict	- Compromise
ArmeGov	Iran	+ Stalemate	+ Conflict	- Compromise
ArmeGov	USA	+ Stalemate	+ Stalemate	+ Stalemate
ArmeGov	EUCouncil	+ Compel	+ Compel	+ Compel
ArmeGov	EU	+ Compel	+ Compel	+ Compel
ArmeGov	AzerGov	No Issue	No Issue	No Issue
ArmeGov	Turkey	No Issue	No Issue	No Issue
ArmeGov	NKOpp	No Issue	No Issue	No Issue
ArmeGov	France	No Issue	No Issue	No Issue
ArmeGov	Georgia	No Issue	No Issue	No Issue
ArmeGov	Turkmen	No Issue	No Issue	No Issue
ArmeGov	Kazakhstan	No Issue	No Issue	No Issue
ArmeGov	AzerOpp	+ Conflict	+ Conflict	+ Conflict
Turkey	Russia	+ Stalemate	+ Conflict	- Give In
Turkey	NKGov	+ Stalemate	+ Conflict	- Give In
Turkey	ArmeOpp	+ Stalemate	+ Conflict	- Give In
Turkey	UNSG	+ Stalemate	+ Conflict	- Compromise
Turkey	Iran	+ Stalemate	+ Conflict	- Compromise
Turkey	USA	+ Stalemate	+ Stalemate	+ Stalemate
Turkey	EUCouncil	+ Compel	+ Compel	+ Compel
Turkey	EU	+ Compel	+ Compel	+ Compel
Turkey	AzerGov	No Issue	No Issue	No Issue
Turkey	ArmeGov	No Issue	No Issue	No Issue
Turkey	NKOpp	No Issue	No Issue	No Issue
Turkey	France	No Issue	No Issue	No Issue
Turkey	Georgia	No Issue	No Issue	No Issue
Turkey	Turkmen	No Issue	No Issue	No Issue
Turkey	Kazakhstan	No Issue	No Issue	No Issue
Turkey	AzerOpp	+ Conflict	+ Conflict	+ Conflict
NKOpp	Russia	+ Stalemate	+ Conflict	- Give In
NKOpp	NKGov	+ Stalemate	+ Conflict	- Give In
NKOpp	ArmeOpp	+ Stalemate	+ Conflict	- Give In
NKOpp	UNSG	+ Stalemate	+ Conflict	- Compromise
NKOpp	Iran	+ Stalemate	+ Conflict	- Compromise
NKOpp	USA	+ Stalemate	+ Stalemate	+ Stalemate
NKOpp	EUCouncil	+ Compel	+ Compel	+ Compel
NKOpp	EU	+ Compel	+ Compel	+ Compel
NKOpp	AzerGov	No Issue	No Issue	No Issue
NKOpp	ArmeGov	No Issue	No Issue	No Issue
NKOpp	Turkey	No Issue	No Issue	No Issue
NKOpp	France	No Issue	No Issue	No Issue

FocalGroup	RivalGroup	FocalView	RivalView	JointView
NKOpp	Georgia	No Issue	No Issue	No Issue
NKOpp	Turkmen	No Issue	No Issue	No Issue
NKOpp	Kazakhstan	No Issue	No Issue	No Issue
NKOpp	AzerOpp	+ Conflict	+ Conflict	+ Conflict
France	Russia	+ Stalemate	+ Conflict	- Give In
France	NKGov	+ Stalemate	+ Conflict	- Give In
France	ArmeOpp	+ Stalemate	+ Conflict	- Give In
France	UNSG	+ Stalemate	+ Conflict	- Compromise
France	Iran	+ Stalemate	+ Conflict	- Compromise
France	USA	+ Stalemate	+ Stalemate	+ Stalemate
France	EUCouncil	+ Compel	+ Compel	+ Compel
France	EU	+ Compel	+ Compel	+ Compel
France	AzerGov	No Issue	No Issue	No Issue
France	ArmeGov	No Issue	No Issue	No Issue
France	Turkey	No Issue	No Issue	No Issue
France	NKOpp	No Issue	No Issue	No Issue
France	Georgia	No Issue	No Issue	No Issue
France	Turkmen	No Issue	No Issue	No Issue
France	Kazakhstan	No Issue	No Issue	No Issue
France	AzerOpp	+ Conflict	+ Conflict	+ Conflict
Georgia	Russia	+ Stalemate	+ Conflict	- Give In
Georgia	NKGov	+ Stalemate	+ Conflict	- Give In
Georgia	ArmeOpp	+ Stalemate	+ Conflict	- Give In
Georgia	UNSG	+ Stalemate	+ Conflict	- Compromise
Georgia	Iran	+ Stalemate	+ Conflict	- Compromise
Georgia	USA	+ Stalemate	+ Stalemate	+ Stalemate
Georgia	EUCouncil	+ Compel	+ Compel	+ Compel
Georgia	EU	+ Compel	+ Compel	+ Compel
Georgia	AzerGov	No Issue	No Issue	No Issue
Georgia	ArmeGov	No Issue	No Issue	No Issue
Georgia	Turkey	No Issue	No Issue	No Issue
Georgia	NKOpp	No Issue	No Issue	No Issue
Georgia	France	No Issue	No Issue	No Issue
Georgia	Turkmen	No Issue	No Issue	No Issue
Georgia	Kazakhstan	No Issue	No Issue	No Issue
Georgia	AzerOpp	- Conflict	- Conflict	+ Conflict
Turkmen	Russia	- Give In	- Conflict	- Compromise
Turkmen	NKGov	- Give In	- Conflict	- Compromise
Turkmen	ArmeOpp	- Give In	- Conflict	- Compromise
Turkmen	UNSG	- Give In	- Conflict	- Compromise
Turkmen	Iran	- Compromise	- Conflict	- Compromise
Turkmen	USA	- Give In	- Give In	- Give In
Turkmen	EUCouncil	- Conflict	- Conflict	- Conflict
Turkmen	EU	- Conflict	- Conflict	- Conflict
Turkmen	AzerGov	No Issue	No Issue	No Issue
Turkmen	ArmeGov	No Issue	No Issue	No Issue
Turkmen	Turkey	No Issue	No Issue	No Issue

FocalGroup	RivalGroup	FocalView	RivalView	JointView
Turkmen	NKOpp	No Issue	No Issue	No Issue
Turkmen	France	No Issue	No Issue	No Issue
Turkmen	Georgia	No Issue	No Issue	No Issue
Turkmen	Kazakhstan	No Issue	No Issue	No Issue
Turkmen	AzerOpp	- Conflict	- Conflict	- Conflict
Kazakhstan	Russia	- Give In	- Conflict	- Compromise
Kazakhstan	NKGov	- Give In	- Conflict	- Compromise
Kazakhstan	ArmeOpp	- Give In	- Conflict	- Compromise
Kazakhstan	UNSG	- Give In	- Conflict	- Compromise
Kazakhstan	Iran	- Compromise	- Conflict	- Compromise
Kazakhstan	USA	- Give In	- Give In	- Give In
Kazakhstan	EUCouncil	- Conflict	- Conflict	- Conflict
Kazakhstan	EU	- Conflict	- Conflict	- Conflict
Kazakhstan	AzerGov	No Issue	No Issue	No Issue
Kazakhstan	ArmeGov	No Issue	No Issue	No Issue
Kazakhstan	Turkey	No Issue	No Issue	No Issue
Kazakhstan	NKOpp	No Issue	No Issue	No Issue
Kazakhstan	France	No Issue	No Issue	No Issue
Kazakhstan	Georgia	No Issue	No Issue	No Issue
Kazakhstan	Turkmen	No Issue	No Issue	No Issue
Kazakhstan	AzerOpp	- Conflict	- Conflict	- Conflict
AzerOpp	Russia	+ Stalemate	+ Conflict	- Compromise
AzerOpp	NKGov	+ Stalemate	+ Conflict	- Compromise
AzerOpp	ArmeOpp	+ Stalemate	+ Conflict	- Compromise
AzerOpp	UNSG	+ Stalemate	+ Conflict	- Compromise
AzerOpp	Iran	+ Stalemate	+ Conflict	- Compromise
AzerOpp	USA	+ Stalemate	+ Stalemate	+ Stalemate
AzerOpp	EUCouncil	+ Compel	+ Compel	+ Compel
AzerOpp	EU	+ Compel	+ Compel	+ Compel
AzerOpp	AzerGov	- Conflict	- Conflict	- Conflict
AzerOpp	ArmeGov	- Conflict	- Conflict	- Conflict
AzerOpp	Turkey	- Conflict	- Conflict	- Conflict
AzerOpp	NKOpp	- Conflict	- Conflict	- Conflict
AzerOpp	France	- Conflict	- Conflict	- Conflict
AzerOpp	Georgia	+ Conflict	+ Conflict	- Conflict
AzerOpp	Turkmen	+ Conflict	+ Conflict	+ Conflict
AzerOpp	Kazakhstan	+ Conflict	+ Conflict	+ Conflict

Fig. 1
Oil Production and Consumption in Azerbaijan, 1992-2005*

*Source: EIA, 2004 numbers are estimated, 2005 (estimate) is based on Q1 only
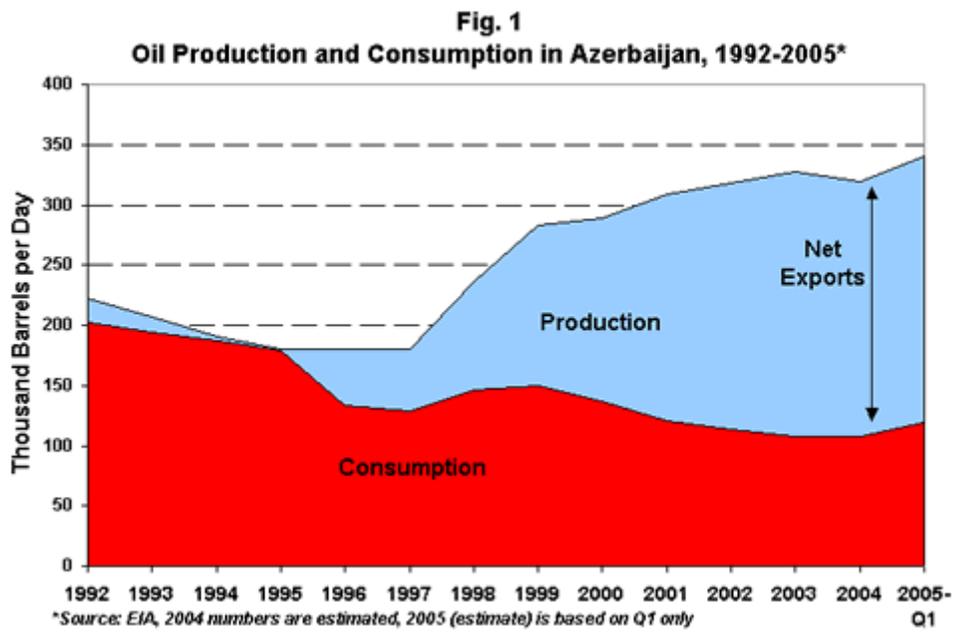
Figure 5-1-1-1 Azerbaijan's Oil Production, 1992-2005 (EIA Website)

Fig. 2
Natural Gas Production and Consumption in Azerbaijan
1992-2004
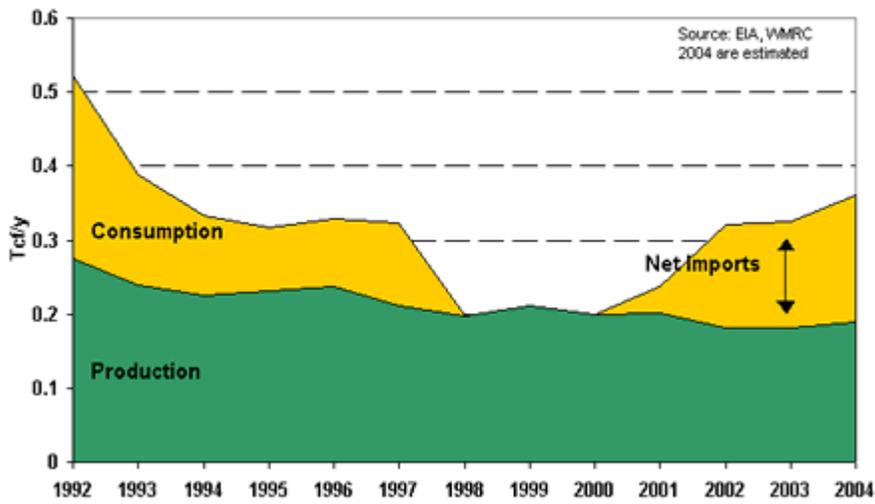
Figure 5-1-1-2 Azerbaijan's Gas Production, 1994-2004 (EIA Website)

Map 5-1-2-1 Caspian Region Pipelines and the BTC (EIA Website)

Map 5-1-2-2 Caspian Region Natural Gas Pipelines (EIA Website)

Figure 5-3-2-1 Nagorno-Karabakh Crisis Positions
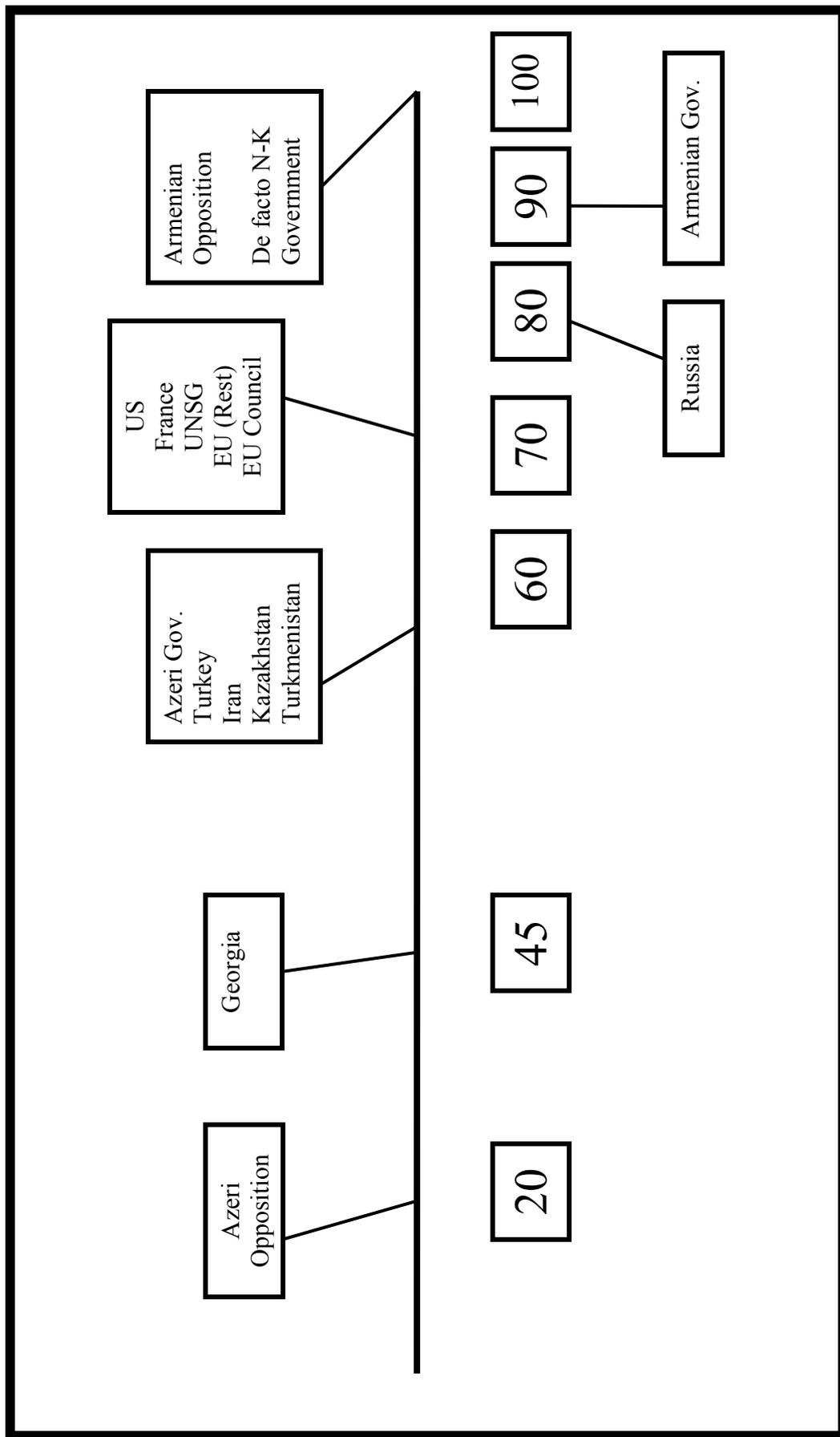
Figure 5-3-3-1 Absolute Capability Distribution

Legend:
ArmeGov, ArmeOpp, AzerGov, AzerOpp, EU, EUCouncil, France, Georgia, Iran, Kazakhstan, NKGov, NKOpp, Russia, Turkey, Turkmen, UNSG, USA

Pie slices:
- AzerGov 7%
- ArmeOpp 6%
- ArmeGov 7%
- USA 9%
- UNSG 7%
- Turkmen 1%
- Turkey 6%
- Russia 9%
- NKOpp 6%
- NKGov 7%
- Kazakhstan 1%
- Iran 4%
- Georgia 5%
- France 9%
- EUCouncil 6%
- EU 6%
- AzerOpp 6%
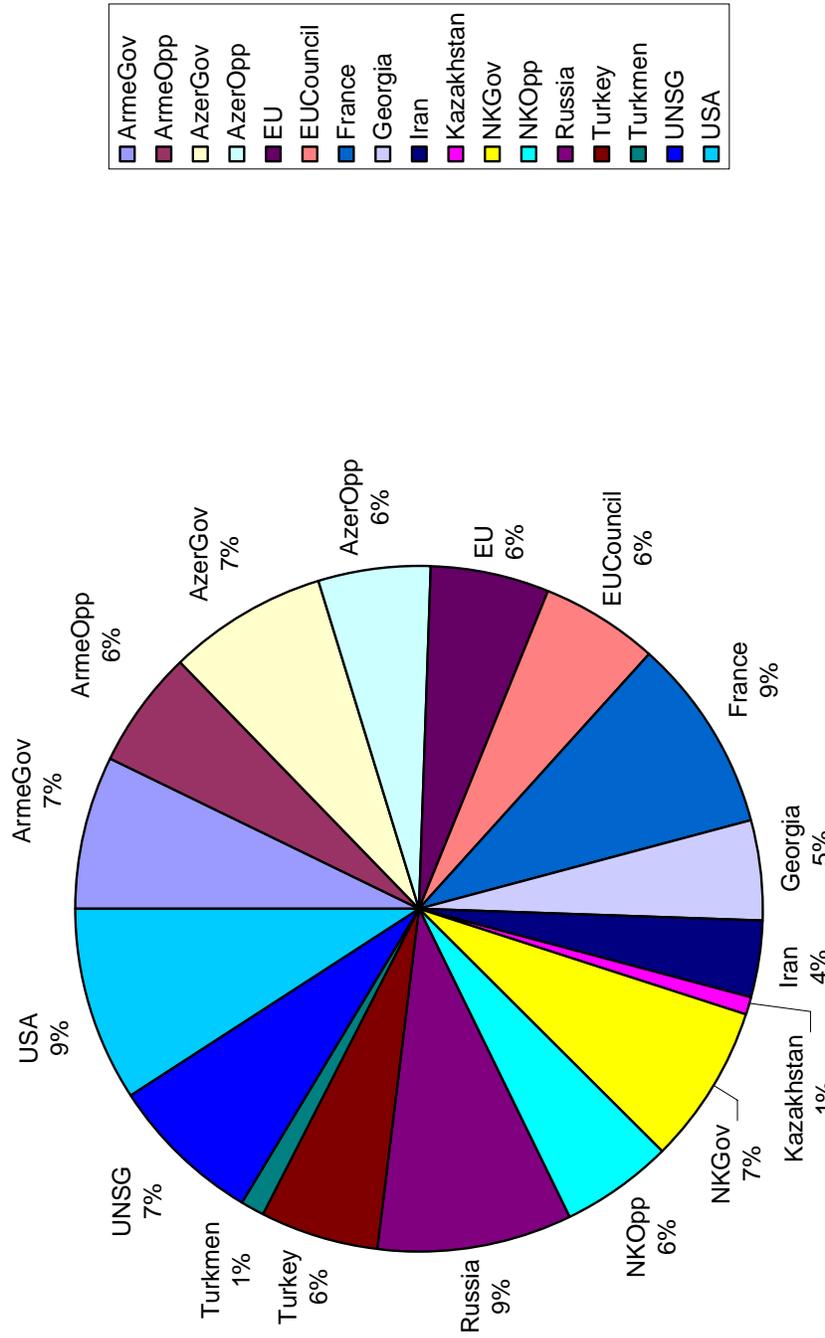
Figure 5-3-2 Salience Scores
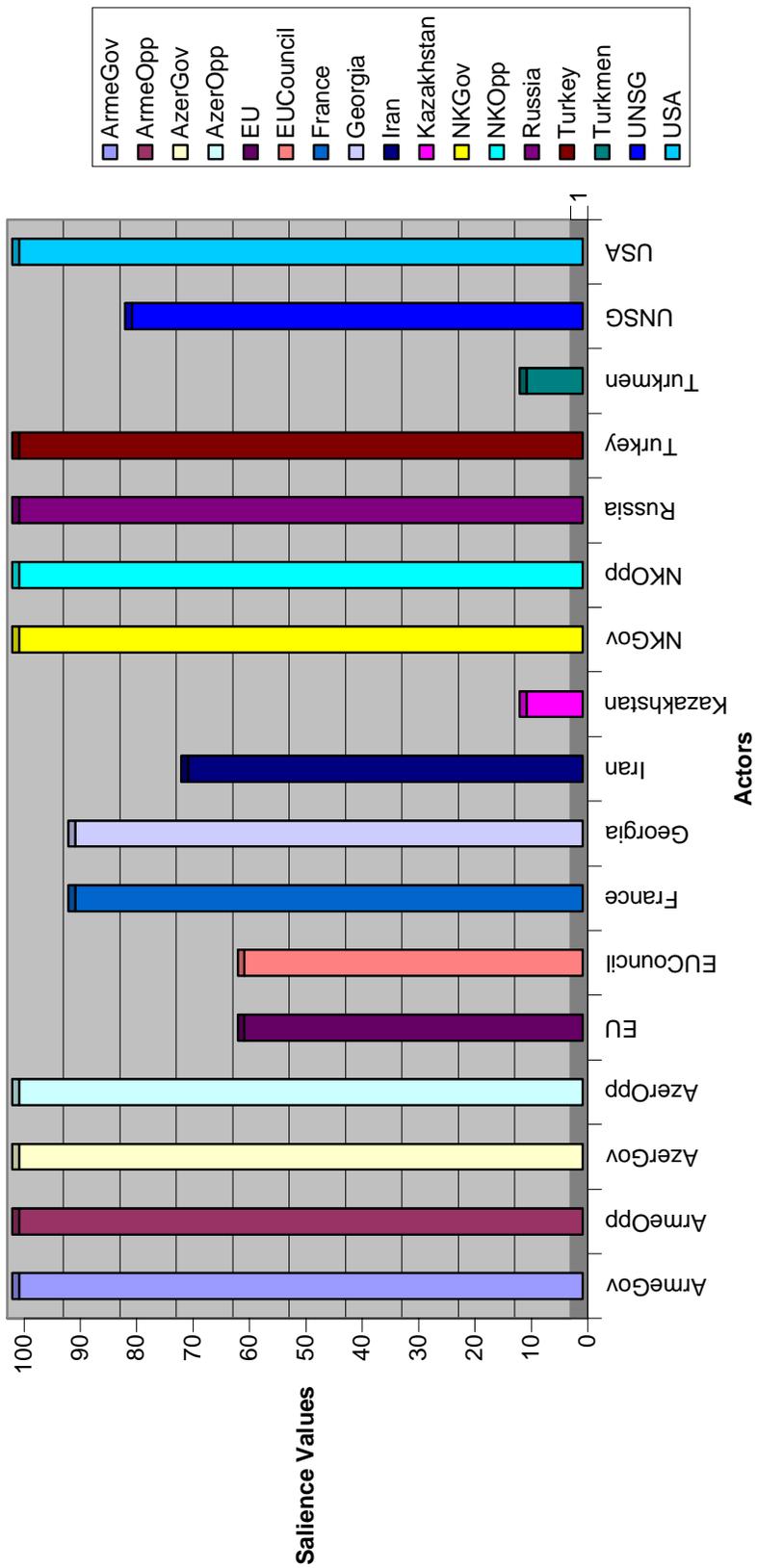
Figure 5-3-3-3 Effective Capability (Resources*Salience) Distribution by Actors

Legend:
- ArmeGov
- ArmeOpp
- AzerGov
- AzerOpp
- EU
- EUCouncil
- France
- Georgia
- Iran
- Kazakhstan
- NKGov
- NKOpp
- Russia
- Turkey
- Turkmen
- UNSG
- USA

Pie chart labels:
- ArmeGov 8%
- ArmeOpp 6%
- AzerGov 8%
- AzerOpp 6%
- EU 4%
- EUCouncil 4%
- France 9%
- Georgia 5%
- Iran 3%
- Kazakhstan 0%
- NKGov 8%
- NKOpp 6%
- Russia 10%
- Turkey 6%
- Turkmen 0%
- UNSG 7%
- USA 10%

174
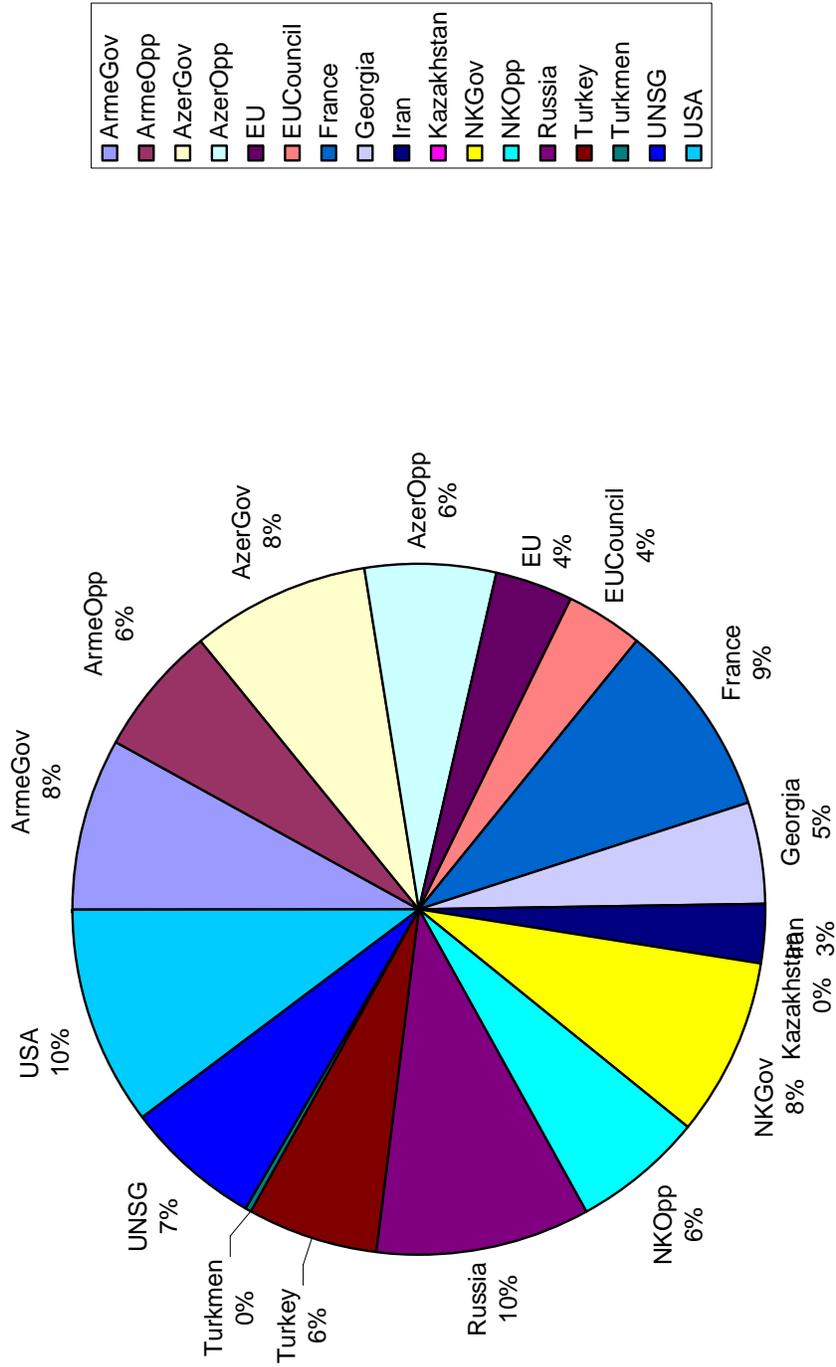
Figure 5-3-3-4 A Comparison of Effective Capabilities Distribution
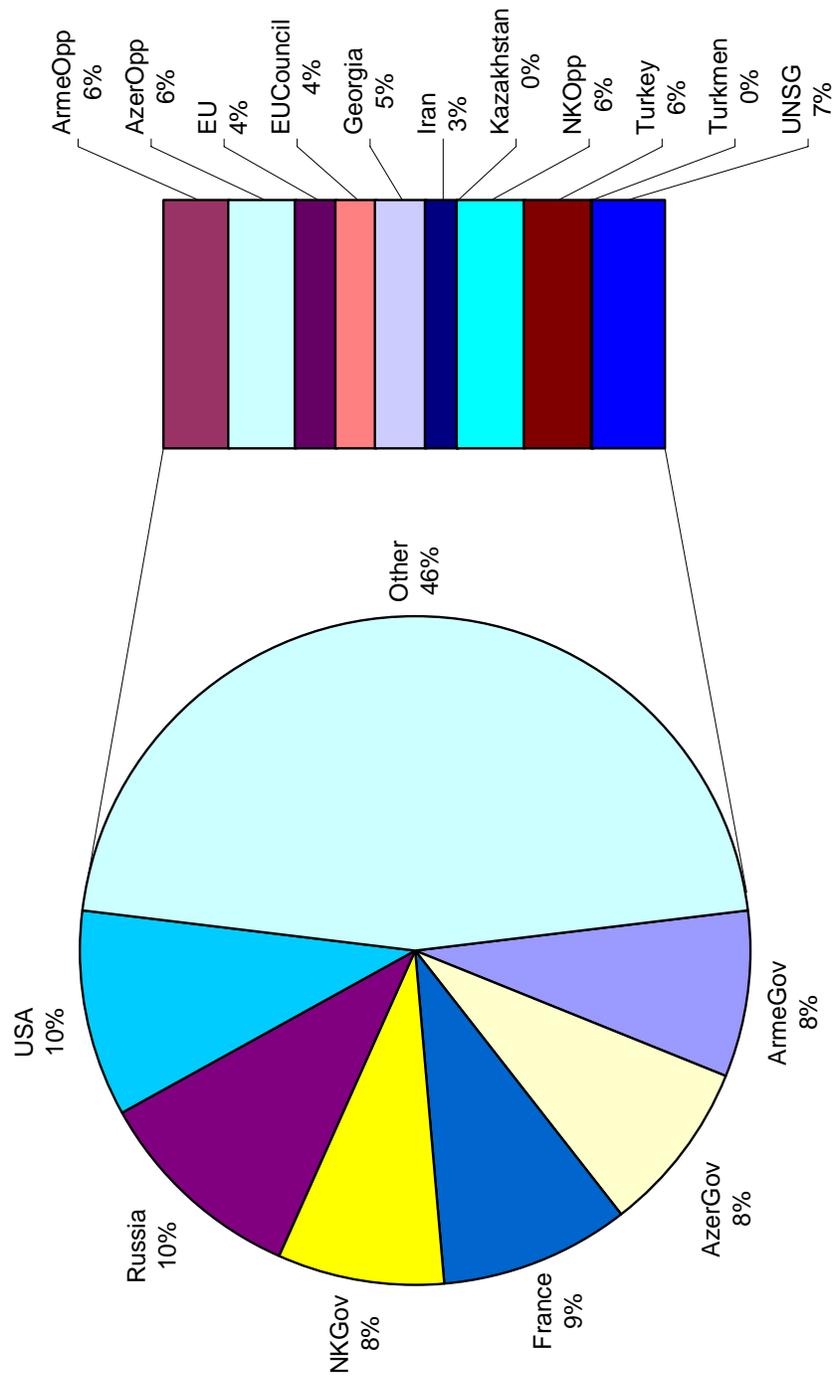
Figure 5-3-3-5 Percentages of Effective Capability Distribution by Positions

176
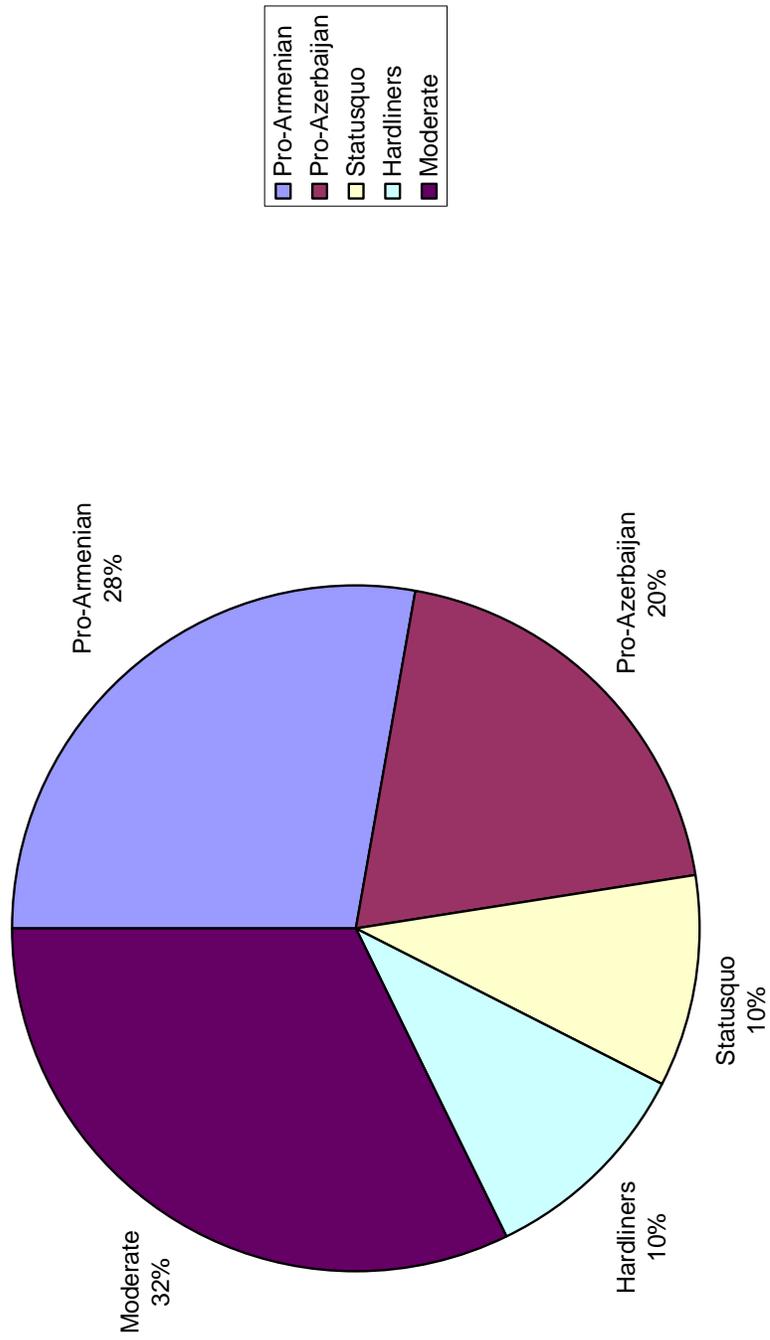
Figure 5-3-3-6 Total Effective Capability Distribution by Positions
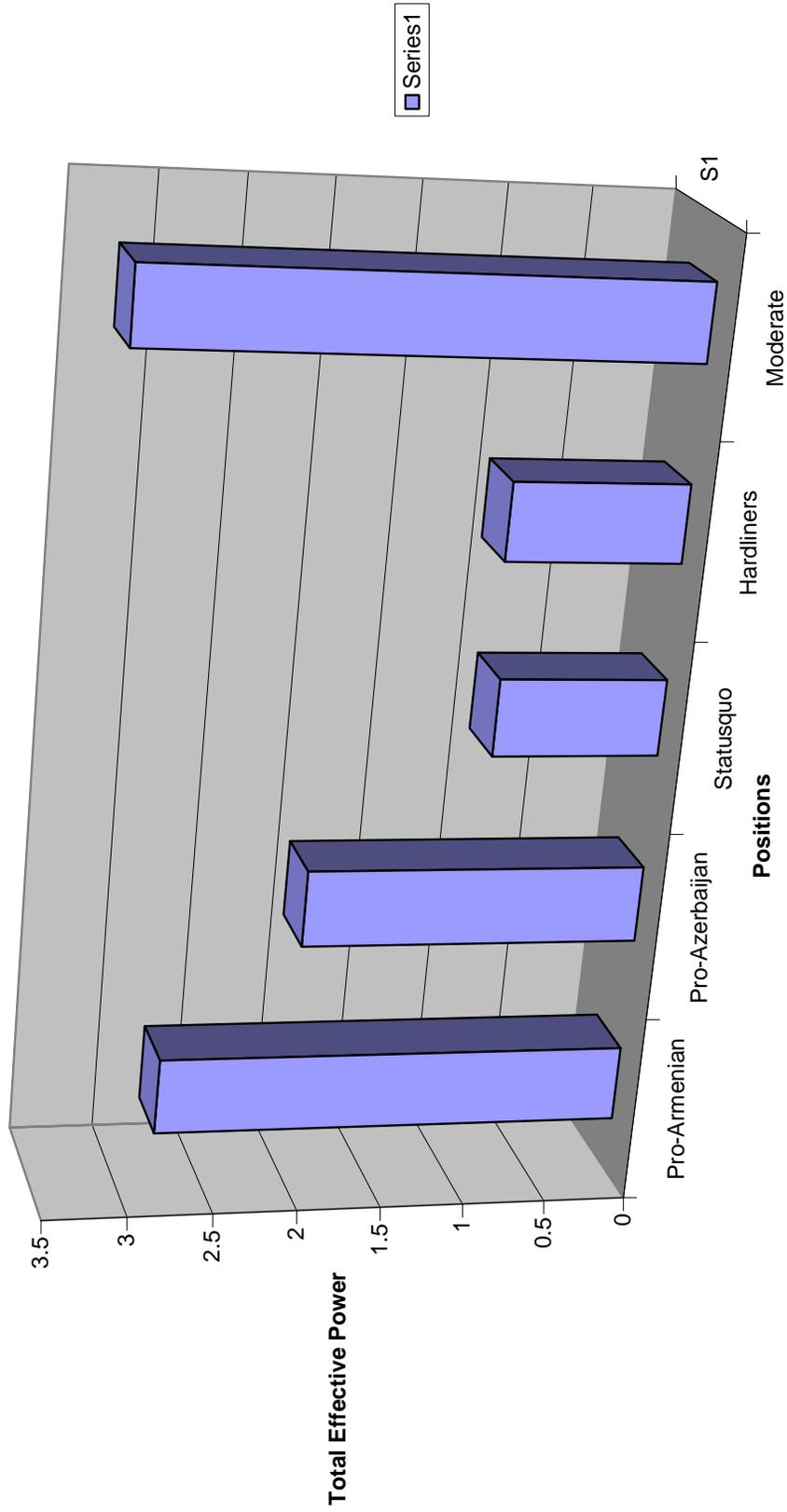
Figure 5-3-4-1 Simulation Minimum-Maximum-Average
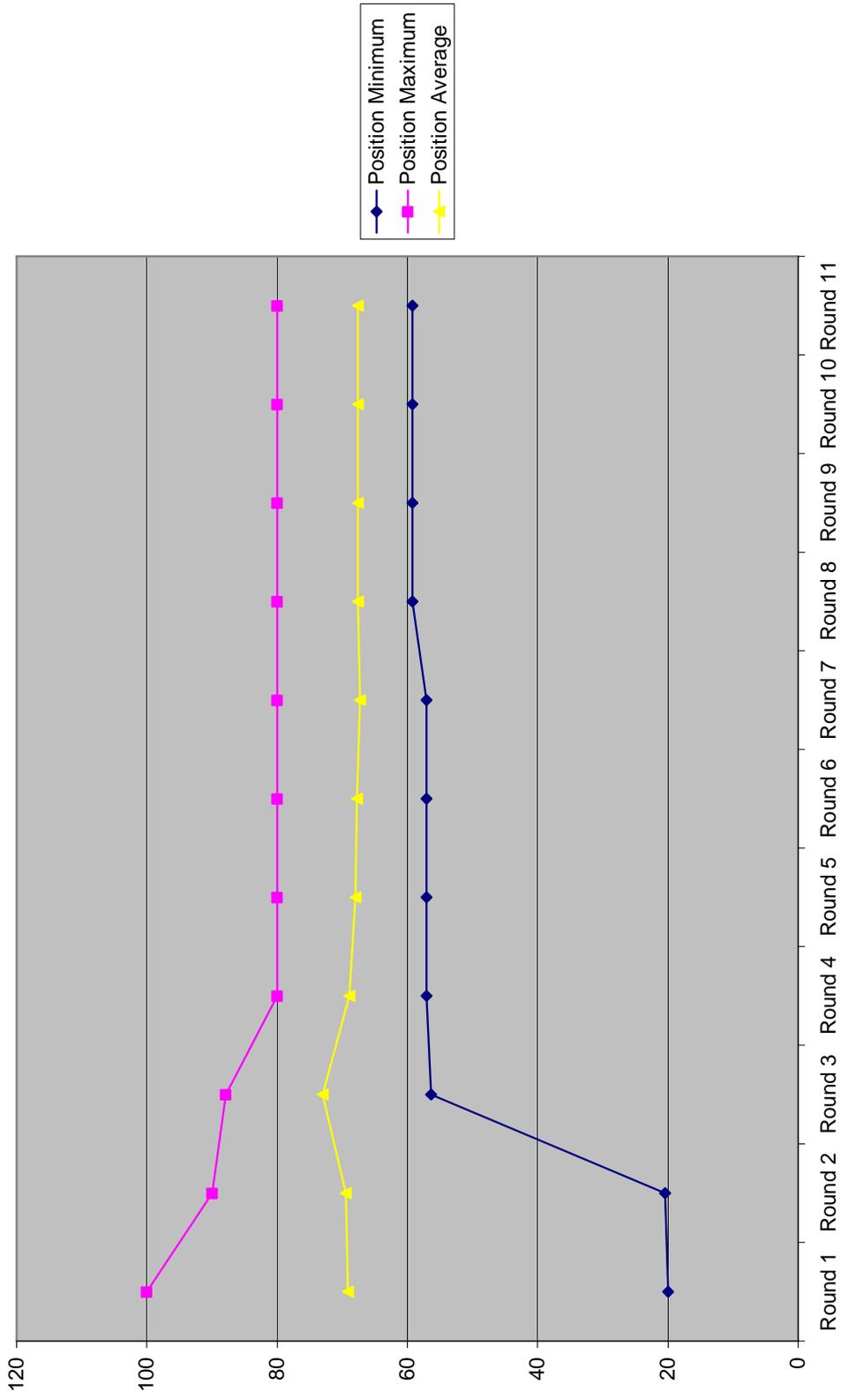
Figure 5-4-4-1 Forecast

179
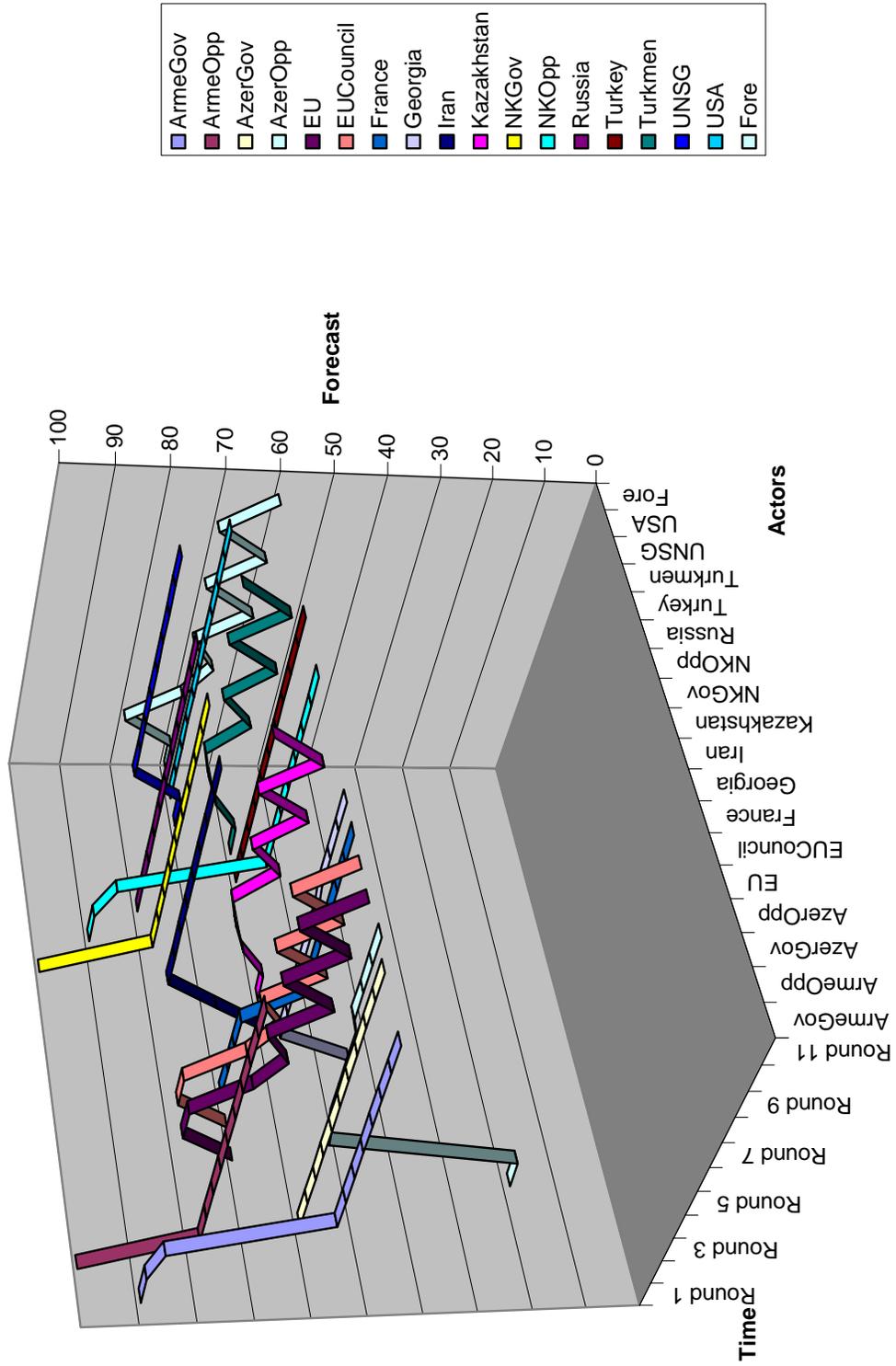
Figure 5-4-1-2 Forecast and Linear Trend Line
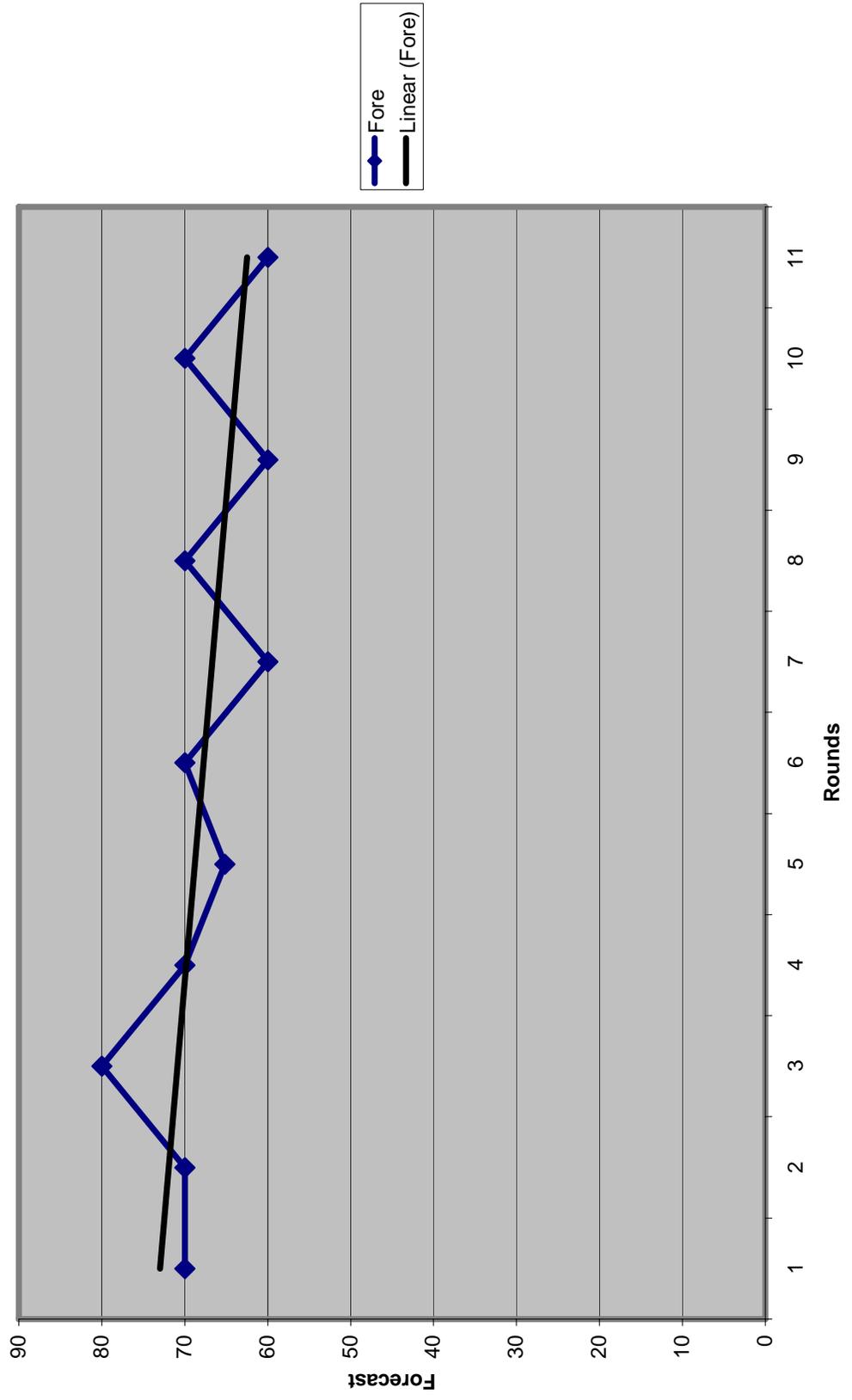
Figure 5-4-3-1 I's View over Time
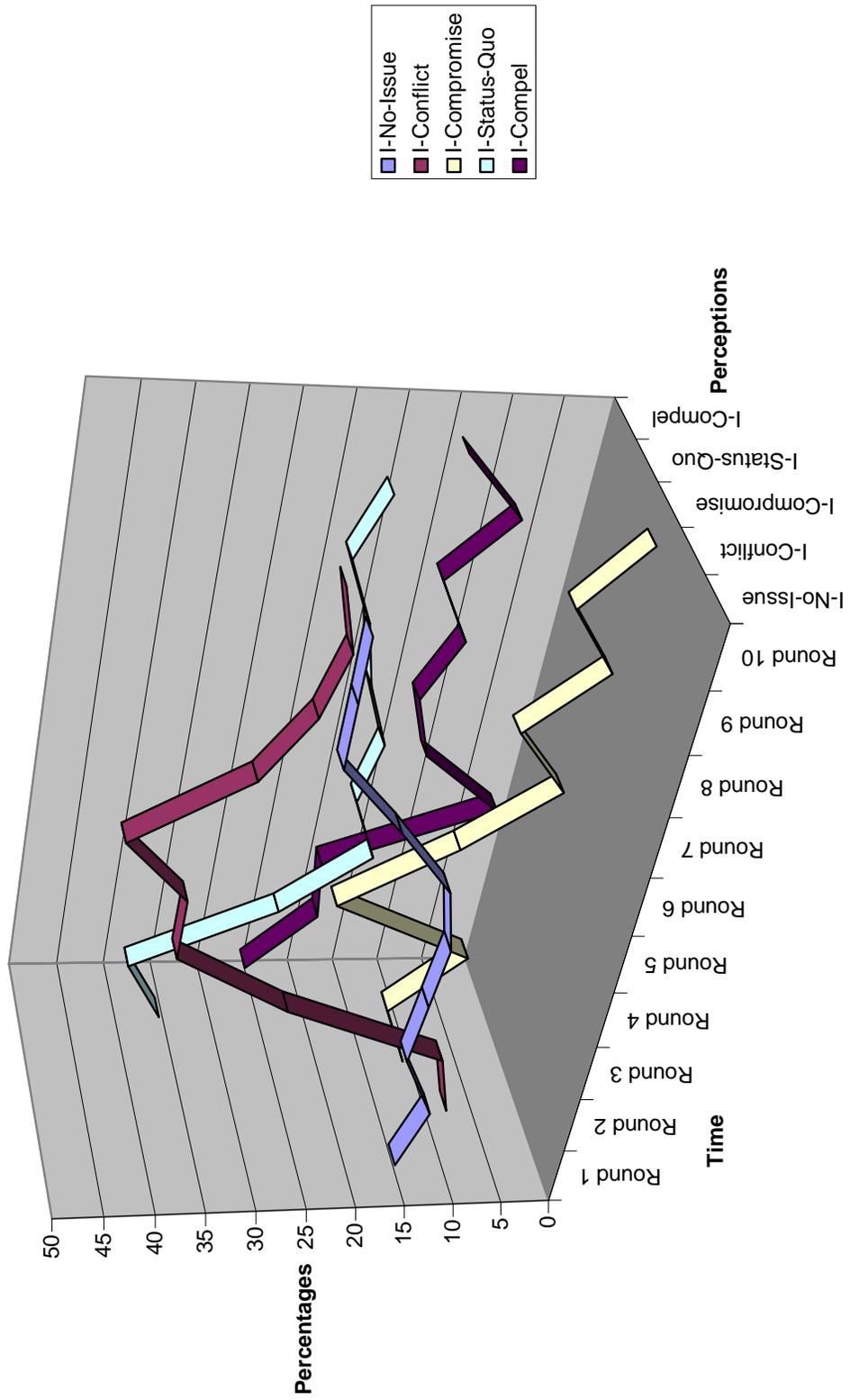
Figure 5-4-3-2 *I*'s View Over Time
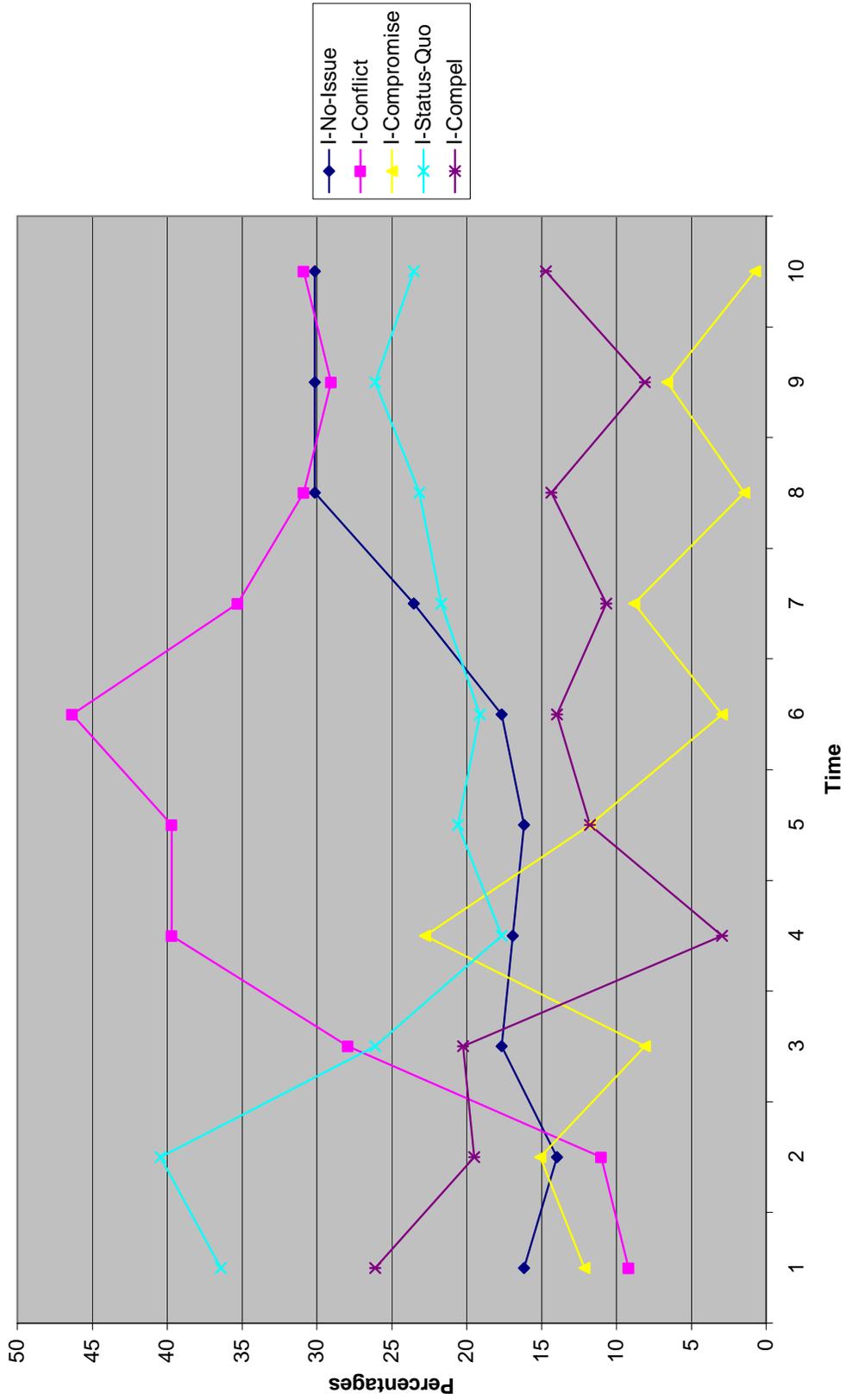
Figure 5-4-3-3 Joint Perceptions

183
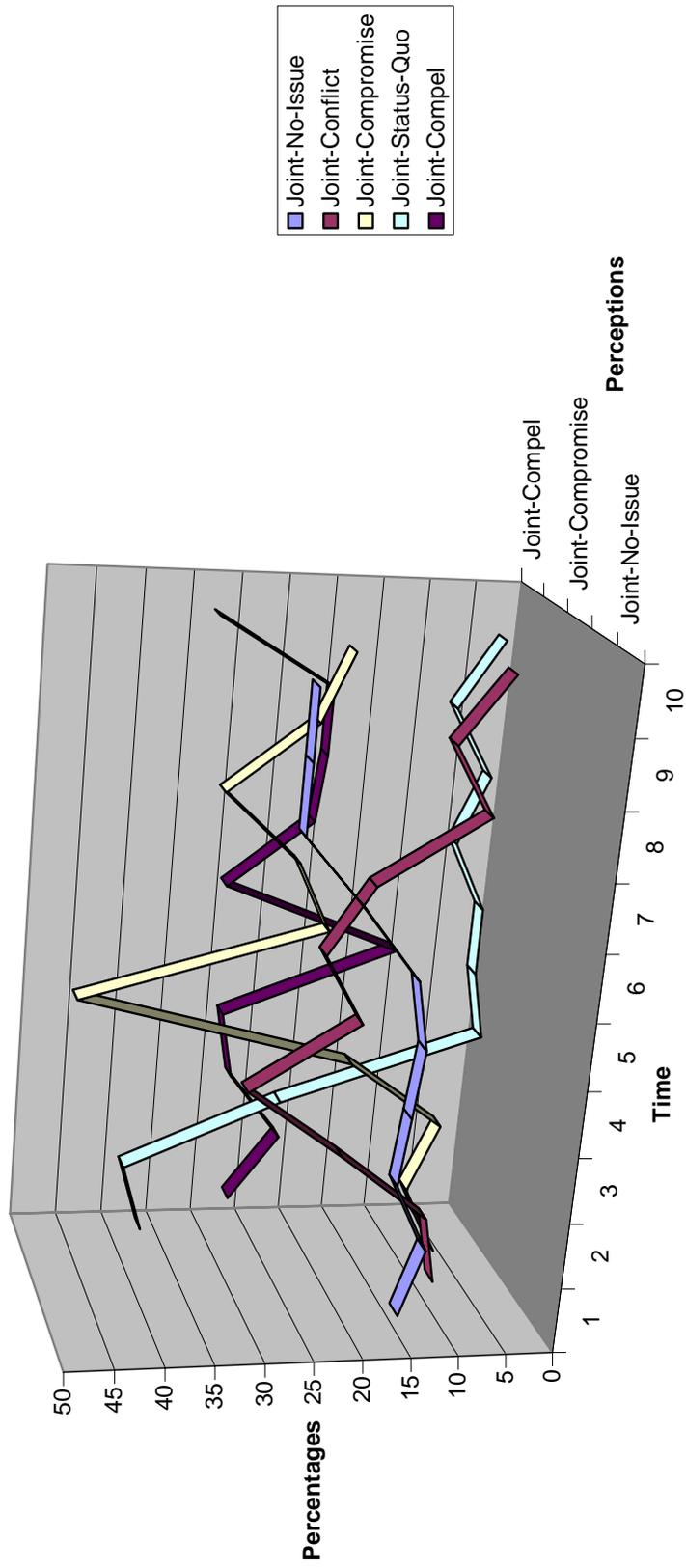
Figure 5-4-3-4 Joint Perceptions
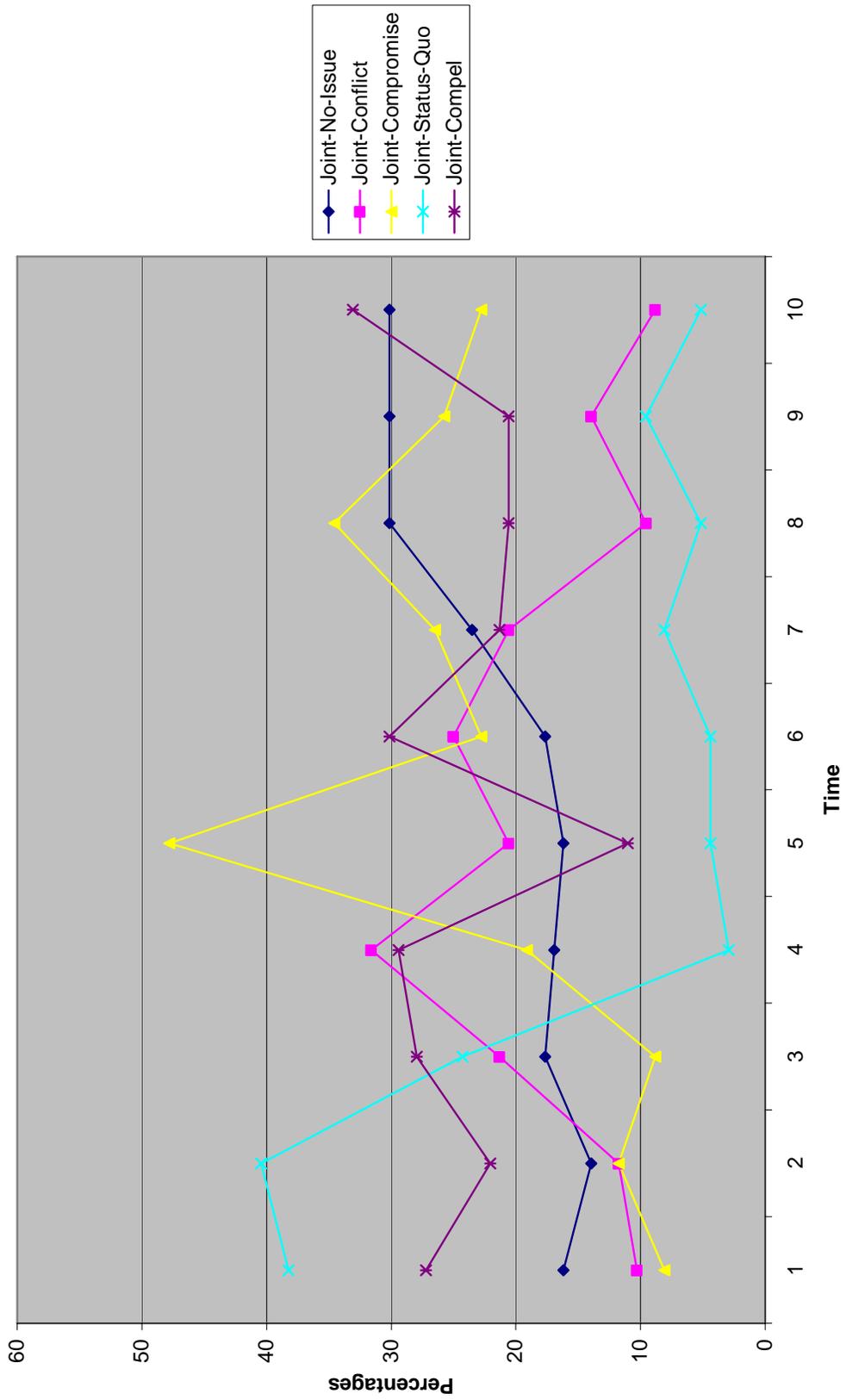
Figure 5-4-3-5 Expected Utility Assesments: EU's Perceptions

Figure 5-4-3-6 Expected Utility Assesments: Armenian Government's Perceptions

186
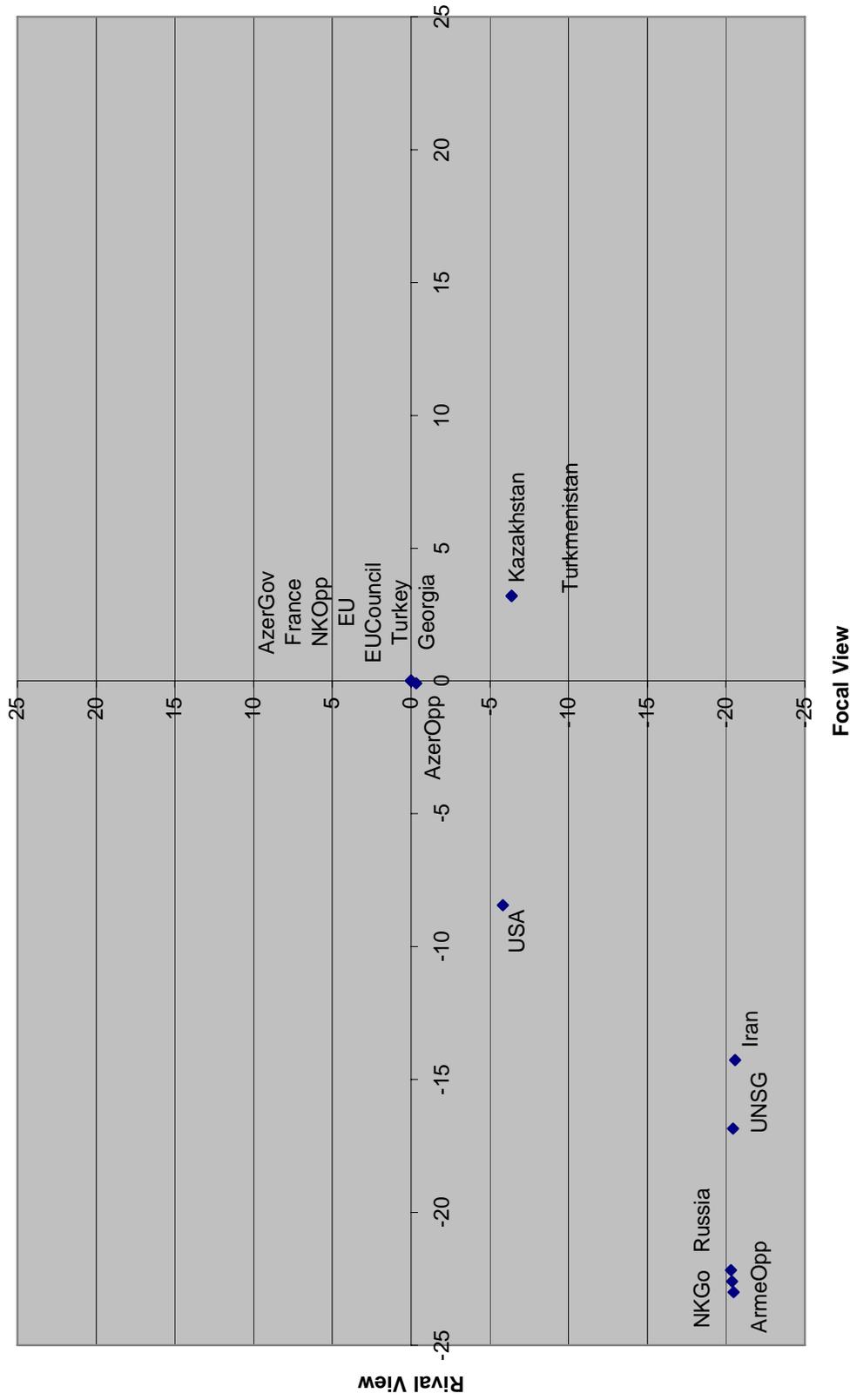
Figure 5-4-3-7 Expected Utility Assesments: Azerbaijan's Perceptions
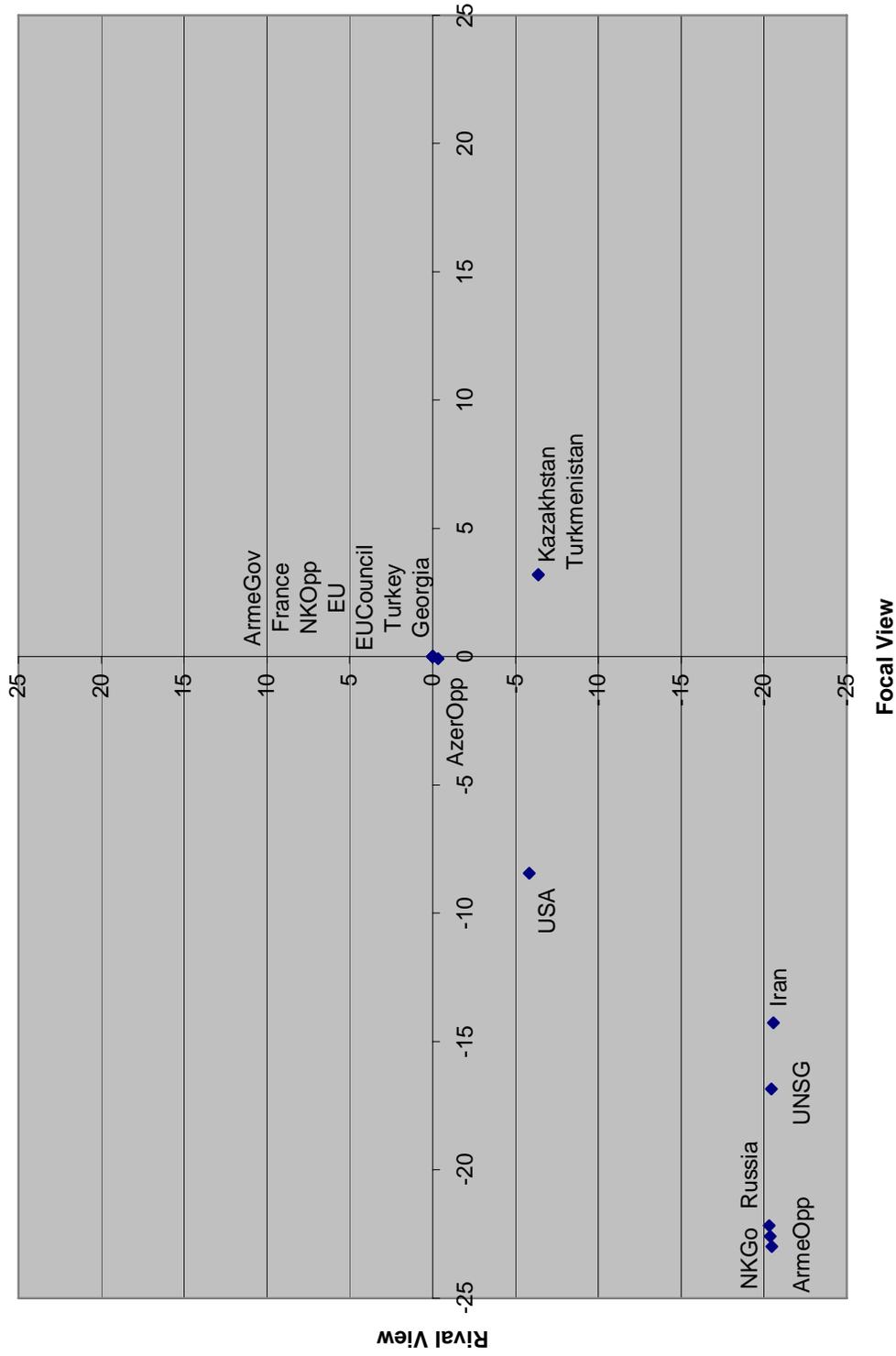
Figure 5-4-3-8 Expected Utility Assesments: France's Perceptions
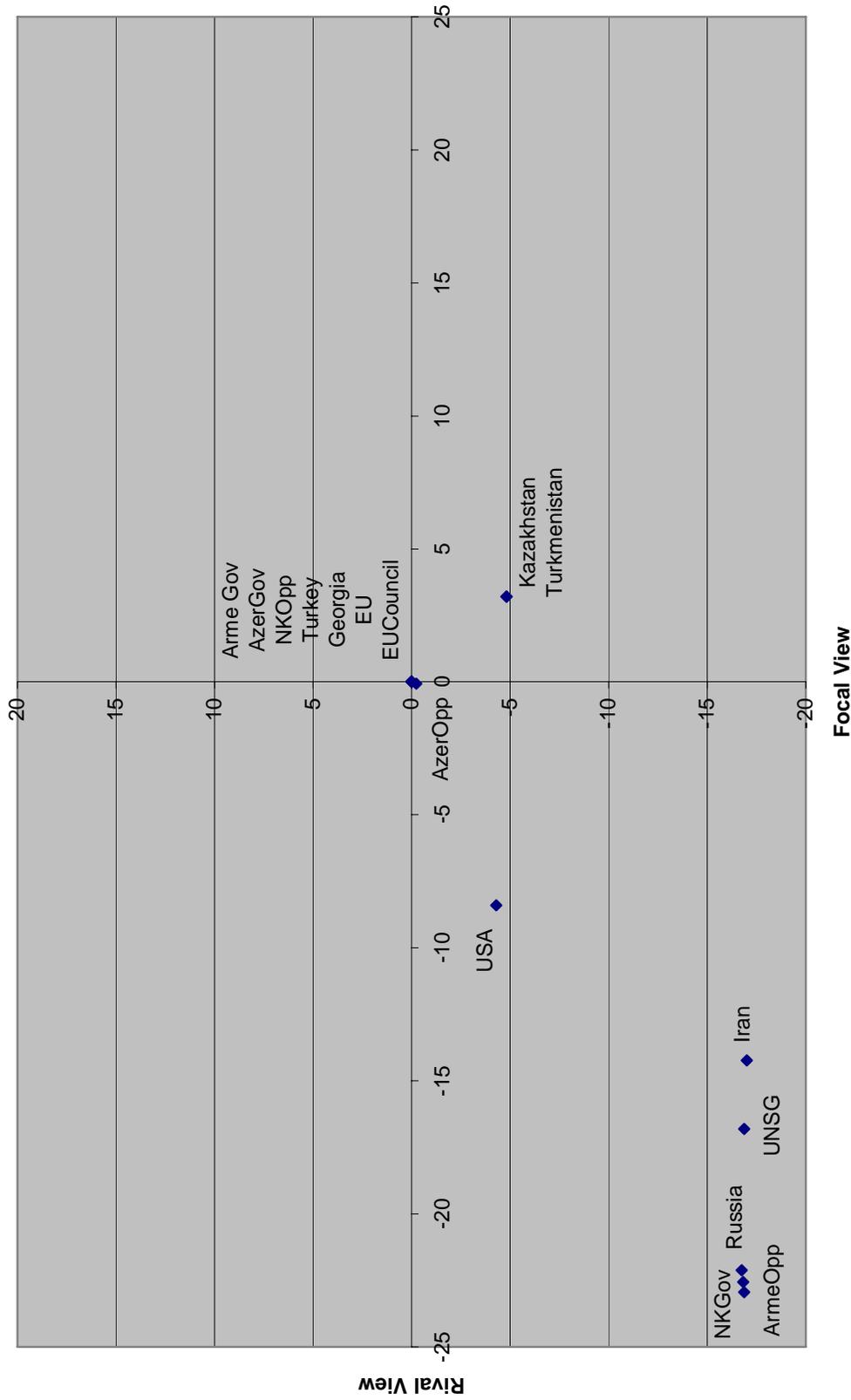
Figure 5-4-3-9 Expected Utility Assessments: Turkey's Perceptions
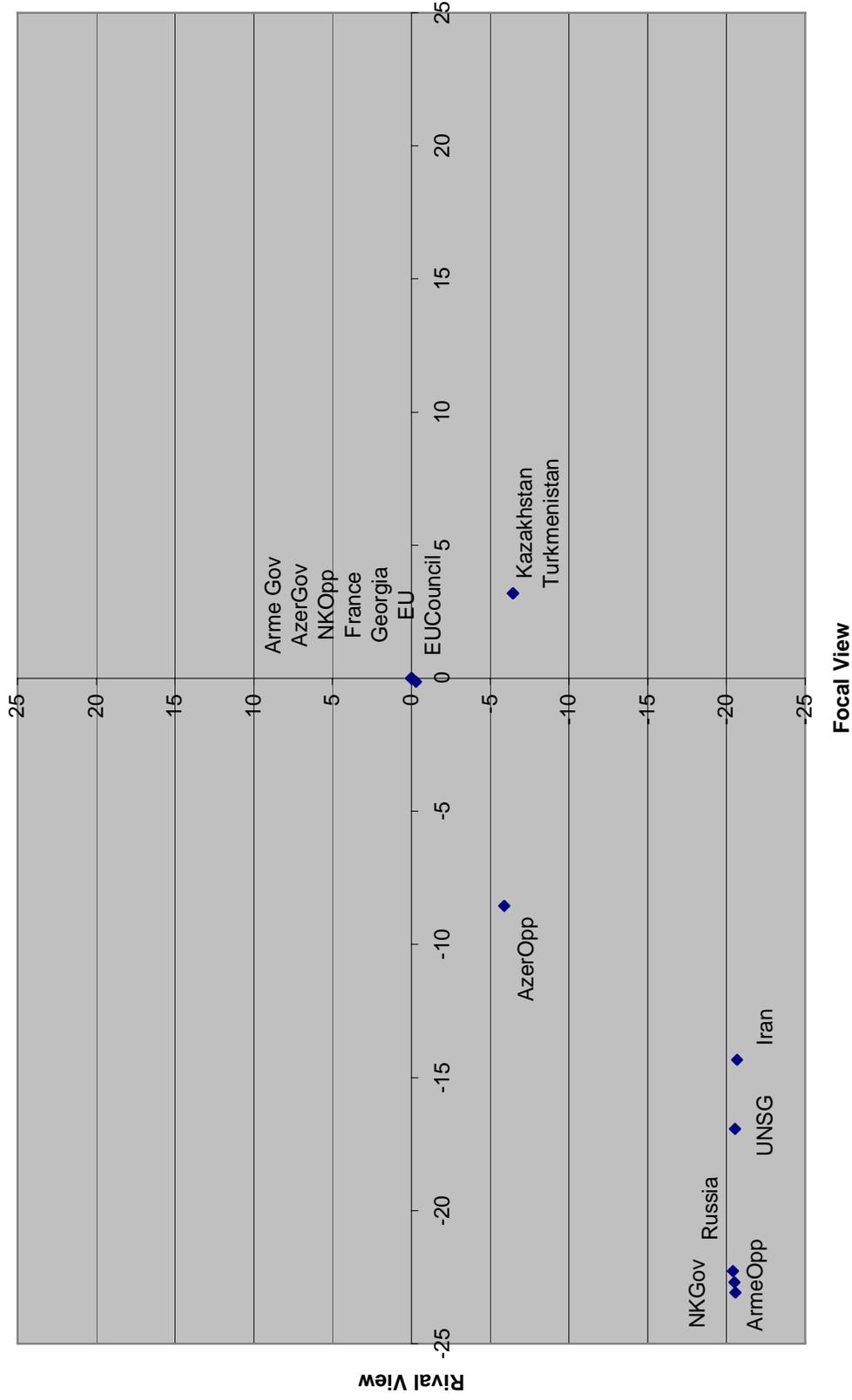
Figure 5-4-3-10 Expected Utility Assesments: NK Government's Perceptions

190
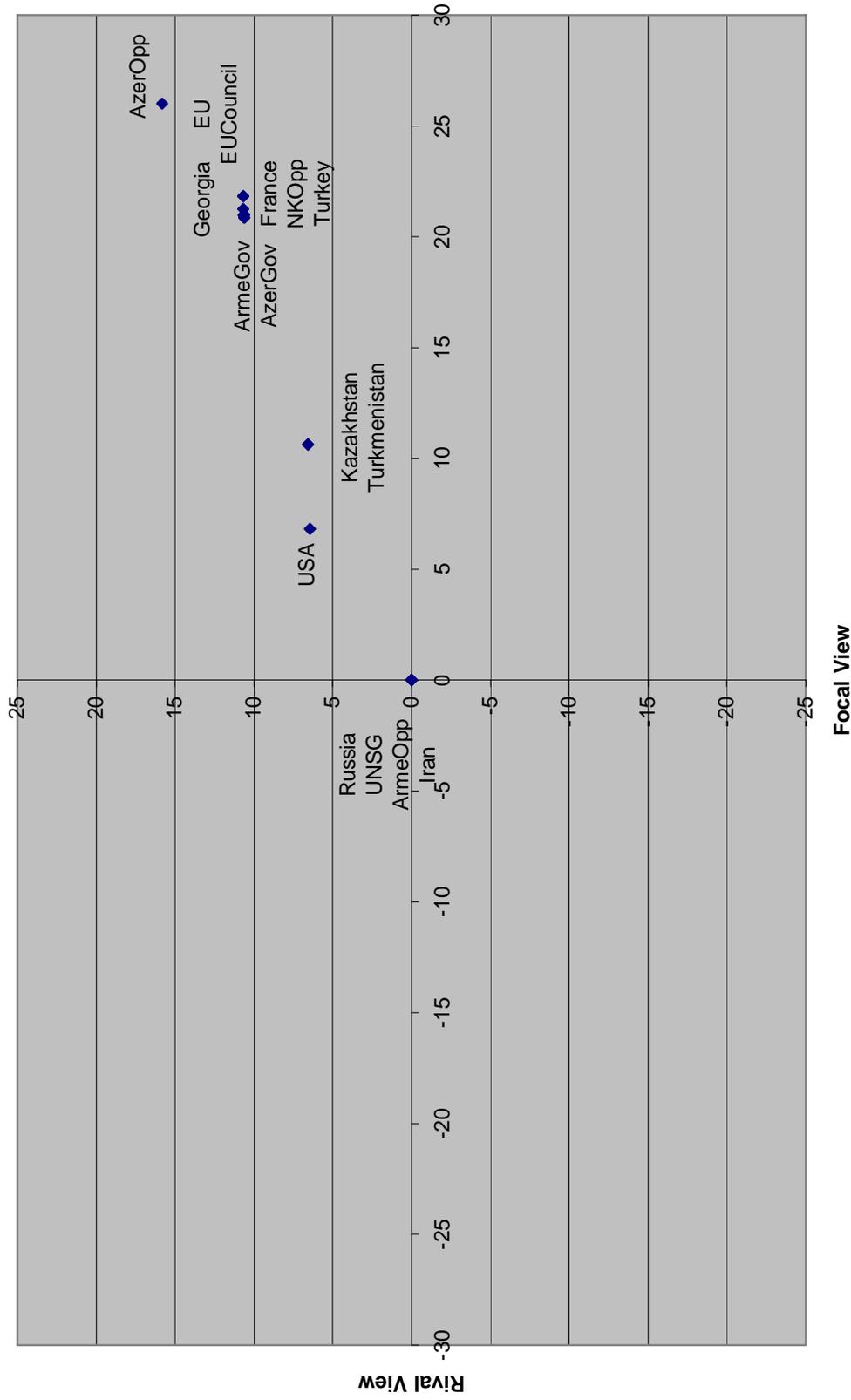
Figure 5-4-3-11 Expected Utility Assesments: Russian Perceptions
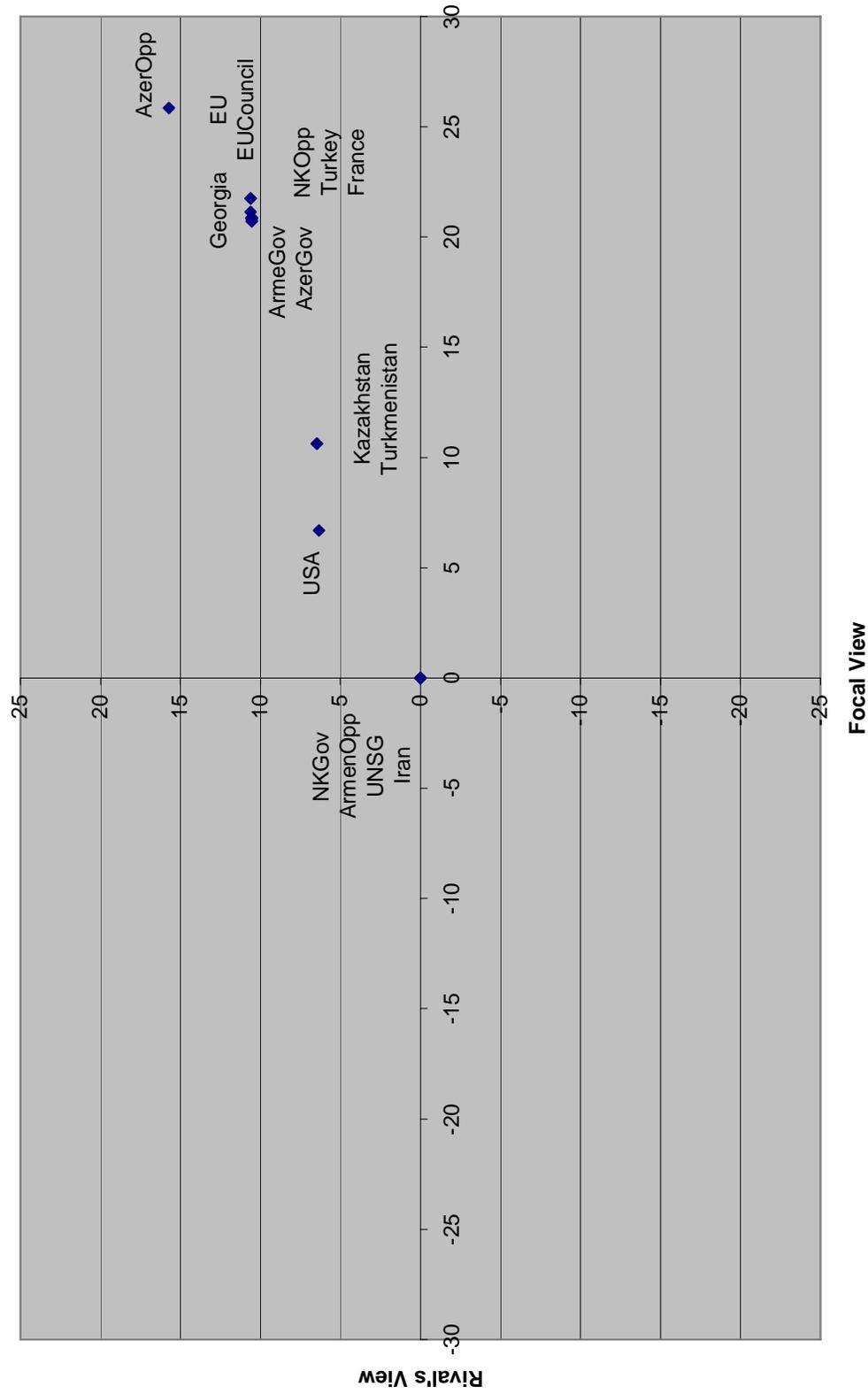
Figure 5-4-3-12 Expected Utility Assesments: US' Perceptions
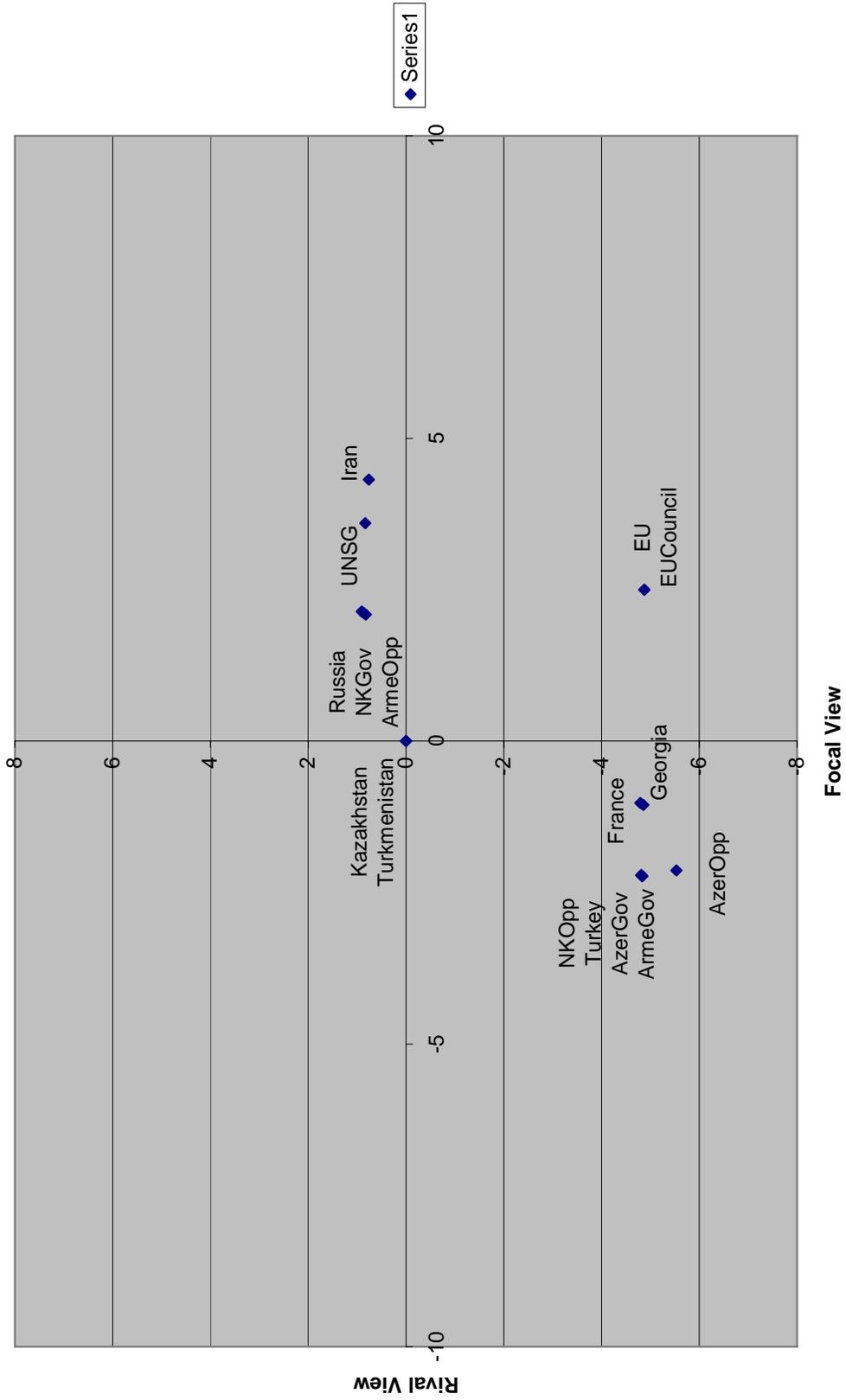
CHAPTER 6
SOUTH OSSETIAN SEPARATISM AND THE BAKU-TBILISI-CEYHAN (BTC) PIPELINE

Plan of the Chapter

This chapter focuses on the conflict in an autonomous unit that is part of Georgia, i.e. South Ossetia and this conflict's possible influences on the BTC pipeline's security. Section one discusses Georgia's energy needs and resources and the importance of the pipeline to secure the supply of energy. Section two gives an introduction to the subject of South Ossetia's independence highlighting its brief history and various dimensions. In the next section, I present expert-generated data and discuss the positions of the actors and their capabilities. Section four includes an in-depth discussion of the results derived from different methods of analyses. Forecasts, policy implications and the future of the Russian-Georgian rivalry are analyzed in the last section.

6.1 Introduction

6.1.1 Georgia, Energy Security in the Region and the BTC Pipeline

Since the collapse of the Soviet Empire, the development of energy resources in the Caspian basin has benefited Georgia's economy and political development. As a country pledged to increase its ties with the US, EU, NATO and Turkey and to establish democratic rule with a market economy, Georgia has been involved in

substantial energy transportation deals, including the BTC and Baku-Supsa[1] oil and the South Caucasus and Baku-Tbilisi-Erzurum natural gas pipelines. However, ethnic clashes, interstate conflicts and a lack of cooperation in the region create obstacles to the further development of energy projects in the South Caucasus, as well as in Georgia. Western investors have been reluctant to launch new projects due to the fear of further instabilities in transit countries and a lack of security of the pipelines in the region. This also applies to Georgia. As a relatively small country with a territory of 69,700 square kilometers (slightly smaller than South Carolina) and a population of 4.6 million (CIA World Factbook 2006), Georgia bears two frozen ethnic conflicts in its Abkhazia and South Ossetia (Tskhinvali) regions where it lost control in the early 1990s. Map 6-1-1-1 presents Georgia and its administrative regions such as South Ossetia, Abkhazia and Ajaria.

(See Map 6-1-1-1 about here)

Georgia, as an ethnically diverse country, also faces ethnic tensions with its Armenian population in Javakhetia (in southern Georgia), as well as Muslims in Ajaria (borders Turkey in the southwest) (Cutler 2004). Map 6-1-1-2 shows the locations of various ethnicities of Southern Caucasia. These conflicts and minority problems are major factors preventing Georgia from fulfilling its potential and consolidating its democracy. This chapter focuses on the South Ossetia conflict, which threatens the security of the BTC pipeline mostly due to its geographic proximity.

(Map 6-1-1-2 about here)

---

[1] It is an oil pipeline that carries Azeri oil to the Georgian port of Supsa, also called the "Western Early" pipeline.

6.1.2 Georgia's Energy Production, Consumption and Transit Routes

After the breakup of the USSR, Moscow left Georgians with artificially-drawn state borders and a centrally planned economy dependent on Russia. The Georgian administration sees energy transit deals and the incoming rent resulting from them as a way to break this vicious cycle (EIA 2004). Table 6-1-2-1 shows Georgia, Armenia and Azerbaijan's economic indicators, displaying the small size of these economies and their low GDPs per capita.

(Tables 6-1-2-1, 6-1-2-2 and 6-1-2-3 about here)

Georgia is a comparatively small energy producer and consumer, especially due to the economic difficulties it has been experiencing since its independence. Oil consumption, which was 26,900 bbl/d in 1992, fell sharply (about 70 percent) and hit rock bottom in 1994 and 1995 with only 7,400 and 7,600 bbl/d, respectively. Georgia reached its 1992 oil consumption level again only in 1998 (EIA 2004). Since then the consumption has been increasing gradually. The country's proven oil reserves are estimated to be only 0.3 billion barrels, but the exploration continues. In 2004, Georgia produced 2,000 barrels of crude oil per day (bbl/d), whereas it consumed 42, 200 bbl/d in the same year. Most of its oil imports come from Azerbaijan and Russia (EIA 2004).

Natural gas represents the second-biggest portion of energy consumption in Georgia with about 25 percent, following hydroelectric resources, which constitute about 50 percent of the consumption. See Table 6-1-2-2 for energy consumption statistics in the region. Georgia does not have significant gas resources, which makes

it dependent on Russian and Turkmen gas (with a pipeline via Russia). Russia's change of the independent supplier Itera to the state-owned Gazprom in 2004 and the long-term supply deal signed between Gazprom and Georgia in 2003 have especially increased the influence of Russia on the Georgian economy and politics and put at risk the security of supply for Georgia (EIA 2004).

Lastly, Table 6-1-2-3 presents brief energy statistics for Georgia and two key actors in the region, Armenia and Azerbaijan. As shown in the table, Georgia has a substantial hydroelectric power generation capacity of 7.3 billion kW hours per year (EIA 2004).

All in all, this discussion shows that Georgia is an energy production-dependent country and has not achieved a secure supply to its energy markets. The energy crisis in January 2006, caused by the bombing of the oil and gas pipeline from Russia by Ossetian separatists, showed that even a small disruption of supply from Russia leads to a big energy crisis in Georgia. Consequently, the Georgian government values export projects from the Caspian to the West both for its economic gains and for Georgia's own energy security.

6.1.3 The Baku-Tbilisi-Ceyhan (BTC) Pipeline: How BTC's Security Affects Georgia

A more comprehensive presentation of the BTC pipeline appears in Chapter 5. In this part, I will briefly discuss the specific effects of the pipeline for Georgia.

The BTC pipeline has an enormous importance for the Georgian economy. According to some economists, the construction of the Georgian part of the pipeline

alone (250 km from the Azeri to the Turkish border) has contributed to 2 percent of the country's GDP (Peuch 2005). Georgia will gain from transit fees and will also benefit from the free oil it will get as a transit country, which might lessen its dependency on Russian energy. The main beneficiary of the pipeline is of course Azerbaijan, which is expected to earn 29 billion dollars per year in oil revenues, while Georgia and Turkey will get 600 million and 1.5 billion dollars from transit fees, respectively (hydrocarbons-technology.com 2006). It is a substantial amount of revenues for Georgia, having a GDP of only 6.4 billion dollars (CIA World Factbook 2006).

Due to security risks in the region, Georgia and the contractors took extreme precautions to protect the pipeline. The US Military's Special Forces trained about 1,500-2,000 Georgian forces in anti-terrorism techniques. 64 million dollars were spent to provide the necessary security, including training and surveillance systems (hydrocarbons-technology.com 2006).

6.2 The South Ossetia Crisis

Georgia is a multiethnic country with various minorities, such as Ossetians, Abkhaz and Armenian people. The Ossetians are generally tribal people who have lived a part of the Caucasus called North Ossetia (today a part of the Russian Federation) and South Ossetia, which is legally part of Georgia but de facto independent since 1992 (Ozhiganov 1997). For Georgians, calling the region South Ossetia is unacceptable, they argue the only Ossetia "North Ossetia", which belongs to the Russian

197

Federation. What the separatists call "South Ossetia" is the Tskhinvali region of Georgia.

6.2.1 History and the Present Situation of South Ossetia's Autonomy Issue

Towards the end of the 1980s, with Perestroika felt in the Soviet Republics, the Georgian nationalist Zviad Gamsakhurdia began an ideological campaign against non-Georgian ethnic groups. The slogan was "Georgia for Georgians" (Ozhiganov 1997). As a result, organizations in South Ossetia that were mainly concerned with economic policies, such as Adamon Nykhas (People's Assembly), started becoming a nationalistic force opposing the Georgian authorities (Ozhiganov 1997).

In 1989, the South Ossetian Autonomous Oblast[2], located within the Georgian Soviet Socialist Republic, declared itself as part of the *Russian* Soviet Federated Socialist Republic. This meant joining North Ossetia, which is a part of Russia. In August 1990, South Ossetia declared its sovereignty, which led the Georgian government to abolish its autonomous status at the end of the same year. The first armed conflicts began after the abolishment of the region's autonomy. On November 28 1991, South Ossetia declared its independence. In June 1992, Russia and Georgia made a cease fire deal that led to a brief halt of violence in the region (Cutler 2004).

Ethnic violence rose again in 1992 and 100,000 refugees fled to Russia. Being overwhelmed by the number of refugees, Russians brokered a deal deploying tripartite forces (Georgian, Russian and Osset) to guarantee order in the region (Cutler 2004). The fighting continued until the nationalist President Gamsakhurdia fell and South Ossetians supported by the North advanced against Georgian forces.

---

[2] Oblast was a large scale administrative division or province in the USSR.

This led to a population exchange between the parties. Ossetians from different parts of Georgia had to go back to South and North Ossetia, while almost all ethnic Georgians returned to Georgia. Only four Georgian villages are left in South Ossetia today. A Joint Control Commission (JCC) was created in 1994 to direct the tripartite peace-keeping forces, integrate South Ossetia into the Georgian economy and cooperate with the OSCE to achieve a resolution of the conflict (Matveea 2002).

The stalemate situation has been weakening the region since 1992. South Ossetia's independence was never recognized, not even by Russia. Although Russia does not recognize the republic, it supports the Ossetian population and the region's economy. South Ossetians are usually issued Russian passports and also use the ruble in their homeland.

Beginning in late 1992, the OSCE has become actively involved in conflict resolution attempts. Its mission's mandate was extended to monitor peacekeeping operations. According to Matveea (2002), the relationship between OSCE and the peacekeeping forces has been good, and the former agreed to a reduction of peacekeeping forces, since hostilities in the region were slowly decreasing.

After the Rose Revolution[3] in Georgia and the election of Mikhail Saakashvili, he pledged to resolve the conflicts with breakaway regions like South Ossetia. He offered autonomy to South Ossetia, but the nationalists in the region still do not accept his proposal. Both in 2004 and 2005 armed fights broke out between Ossetian militia and Georgian soldiers. In each case, Georgia and Russia experienced small crises. Russia uses the South Ossetia question and its energy exports to Georgia

---

[3] Rose Revolution refers to the peaceful protests that led President Eduard Shevardnadze to be democratically displaced.

as tools to maintain its control over the region, while Georgia tries to avoid Russian pressure by making alliances with the US, EU, Turkey and Azerbaijan.

6.3 Analysis with the Expected Utility Model

6.3.1 Expert-Generated Data

Two experts, one specializing on ex-Soviet Republics in the Caucasus and the other focusing on politics in the region in general independently produced the coding of the actors, positions, capabilities and issue salience scores for South Ossetia's autonomy issue. I received the coding results from the senior academic on December 27, 2005. The experts were asked the following question: What are the attitudes of stakeholders toward South Ossetia's autonomy issue? The senior analyst coded the issue as follows:

(Table 6-3-1-1 about here)

6.3.2 Positions of the Actors

Figure 6-3-2-1 is a graphical representation of policy positions actors subscribe to on South Ossetia's autonomy issue. The senior expert determined fourteen actors who have something at stake in this bargaining and are actively involved in the process.

(Figure 6-3-2-1 about here)

The South Ossetian administration's view is represented by its unrecognized President Eduard Kokoiti's (a.k.a. Kokoyev). Kokoiti causes Georgian uproar by publicly claiming that the ultimate aim of his administration is to unite with North Ossetia or at the very least achieve independence. Kokoyev is a big believer in

200

Russia's "stabilizing" effect in the region and maintains very good relations with Moscow. As a result, his administration's position was assigned a value of (100).

The only actor with an identical position is Abkhazia, the other breakaway region of Georgia. Abkhazia naturally favors Ossetian independence because it has the very same aim for itself. Therefore, the Abkhazian administration supports the South Ossetian quest for independence and also maintains better relations with Russia.

On the opposite side of the continuum are the nationalist Georgian actors. The "hawks" in the Georgian government, like Defense Minister Irakli Okruashvili and Interior Minister Vano Merabishvili, support a harder line against the breakaway regions. Also the Georgian Parliament, although it does not have a substantial influence in controlling the executive, is pledged to bring South Ossetia back under Georgia's control. Note that their position is a 20 in a 0-100 continuum where 0 means full centralization and without giving any rights to South Ossetians. That is, even the Georgian nationalists are aware that some sort of self-rule is a necessity if Georgia wants to gain control over the region. Their position, with a value of 20 represents a policy aiming at returning to pre-1990 conditions when South Ossetia was granted very little autonomy as a sub-political unit (oblast).

Besides to the hard-liner position, there are the Georgian Government's more compromise-oriented members, who actually have the most say in the bargaining, such as President Mikheil Saakashvili, Prime Minister Noghaideli, Conflict Resolution Minister Khaindrava, Minister of Foreign Affairs Bezhuashvili and the

GUAM countries[4]. The Georgian position on this issue became clearer when President Saakashvili took office in 2004 and pledged to solve the problems of the breakaway regions. Saakashvili offered a fairly generous autonomy plan for Georgia in 2005 and 2006. But South Ossetians insist that only independence is acceptable to them.

Although the plan's final version and details - if negotiated at all - are unknown, it is clear that Georgia demands concessions from Russia and South Ossetia in return for what it calls "broad autonomy". As of late 2005, the Georgian plan suggested immediate demilitarization of the conflict zone and imposing strict border controls over the Roki tunnel that links South Ossetia with Russia in order to curtail Russian control of and aid to the region and to prevent the influence of organized crime. Saakashvili's plan included a three-year transition period and aimed at the resolution of the conflict by the end of 2007. This schedule was strongly rejected by the Russian and Ossetian authorities. The plan also proposed that the US, EU and OSCE should reach a political settlement with Russia (Fuller 2005).

Whenever the plan's details are discussed, one can observe that President Saakashvili offers South Ossetia a degree of self-governance that would be higher than what North Ossetia enjoys within Russia. It would include a legislative body elected by Ossetians and an executive government branch with responsibilities for key domestic issues, such as local administration and public order, as well as economic and social policies, culture and education. South Ossetian administrators would have senior posts in the Georgian government, and the Ossetian language

---

[4] GUAM is an intergovernmental organization in the region composed of Georgia, Ukraine, Azerbaijan and Moldova that was established to strengthen the independence of these former Soviet Republics. For more information on GUAM and some other less-known actors, see the appendix of this chapter.

would be given an official status. In return, Georgia would be responsible for foreign policy and defense, and within three years, the Ossetian armed forces would be integrated into the Georgian military (EIU 2005).

What Georgia claims to offer is a generous package with a broad autonomy. However, if you look at Figure 6-3-2-1, the Georgian Doves' position value is (45), which does not seem high enough to represent the outlined offer. The senior expert, Dr. Tanrısever explained his decision by emphasizing that, a publicly stated position often differs from an actor's actual goals. The coding refers to the actor's "real" position, as opposed to what the coder interprets as only a publicity stunt. This is exactly what Bueno de Mesquita suggests, arguing if an area expert's knowledge goes beyond an actor's public statements, that coding is much more reliable. The outlined Georgian offer is therefore not deemed to represent the actual position of the Georgian President. This broad autonomy offer actually would be more preferred by actors like the EU, US, OSCE and the UN, whose position value therefore represents broad autonomy at 65. Also, the GUAM countries support Georgia's less than complete autonomy offer for regional stability and the argument to create a power balance at the expense of Russia.

On the other hand, the EU, US, OSCE, UN Secretary General and the Open Society Foundation[5] support the large autonomy option. Although none of these actors has proposed a specific peace plan yet, they announced their support of President Saakashvili's plan in principle. These institutions are especially interested

---

[5]The Open Society Institute and Soros Foundation support countries experiencing transitions in their public policy making that facilitate democratization. These institutions are involved in Georgia's democratization and specifically support policy making that brings about political and economic change.

in limiting the destabilizing effects of Russian influence in the region for their own specific reasons.

Lastly, Russia, North Ossetia and Organized Crime actors all favor the continuation of the status quo. Although Russia occasionally claims that it wants peace and prosperity in the region, the reality suggests that the South Ossetia problem is another regional cleavage that Russia can use to maintain its own interests in the region. For Russia, the current status quo and position of uncertainty are the most beneficial situation, for they create a power vacuum that the Russians can fill to influence Georgia according to their own interests. As our expert coded, the clout of the North Ossetian administration is extremely limited, and they have to act according to Russia's interests. Lastly, organized crime constitutes an important actor in the region. Benefiting from the conflict, criminal organizations smuggle narcotics and are involved in human trafficking and money laundering in the region. Their relations with terrorist organizations are also of great concern for the United States. These organizations prevent the flourishing of political and economic reforms and take advantage of the political ambiguity and power vacuum. The Georgian government accused Russia of letting these groups operate between Russia and South Ossetia.

6.3.3 Capabilities Distribution and Position Min-Max and Averages

Figure 6-3-3-1 shows the absolute capability distribution in this simulation. Naturally, Russia has a very dominant position, a quarter of all capabilities owned by the actors. Russia is followed by other influential foreign actors, such as US, OSCE and UN, each having 9 percent of the power. The South Ossetian administration and the

moderate wing of the Georgian government (i.e. Georgian Doves) each hold 7 percent of the total capabilities.

(Figure 6-3-3-1 and 6-3-3-2 about here)

An inclusion of the salience variable in addition to the absolute capabilities of the actors changes the results. Figure 6-3-3-2 shows that the issue at hand is not of the greatest importance for some of the significant actors, such as the EU, GUAM, OSF or UNSG. Therefore, the actors whose absolute power and salience scores are both high gain a larger portion of the effective capabilities. Russia, for example, has 25 percent of the absolute capabilities and the utmost salience an actor can attach to the issue. As a result, its share of the effective power is very high at 32 percent. Similarly, the US' effective capabilities are boosted to 11 percent.

Figure 6-3-3-3 shows the effective power distribution in a different way. The actors who have more than 10 percent of the power are represented in the pie chart, while the rest of the actors are combined in a stacked bar. This figurative representation shows the disproportionate balance of power in this bargaining. Russia holds almost a third of the total effective capabilities. The US' capability is only a third of Russia's, even as the second most influential actor.

(Figures 6-3-3-3, 6-3-3-4 and 6-3-3-5 are about here)

The effect of this uneven distribution of capabilities can be seen in figures 6-3-3-4 and 6-3-3-5. Due to Russia's enormous weight, effective power distribution by position shows the dominance of status quo position. The second largest position that the actors subscribed to is the large autonomy position that is supported by the Western states and international institutions.

Lastly, Figure 6-3-3-6 shows the maximum, minimum and average position values over the rounds. In this simulation, the expected utility model completed the analysis in two rounds. After two rounds there is almost no bargaining dynamic and no variance in the min, max and average values. Only in the second round did Russia convince some of the pro-South Ossetian actors to switch to the status quo position, which caused the maximum position value to drop from 100 to 80.

(Figure 6-3-3-6 about here)

6.4 Results

6.4.1 The Bargaining Process

The expected utility analysis concluded that the bargaining about South Ossetia's autonomy issue is likely to maintain the status quo position originally favored by Russia. That is, a solution for the conflict does not seem likely to be implemented in the near future. The software concluded the bargaining in two rounds. At the end of two rounds, the forecast of the model is 80, which equals the status quo position. The simulation shows, once again, the disproportionate influence of Russia in the negotiation process. Although originally only three of the two actors with a low level of influence favored the status quo position, Russia's great impact on the bargaining results led to the maintenance of the status quo. For the same reason, the model also did not produce a high level of dynamics. Mathematically, it is very difficult for any actor to make a credible proposal to Russia or other actors since the Russian position is so influential and unchanging. This is a reasonable approximation to the real nature of international politics in the region.

(Figures 6-4-1-1 and 6-4-1-2 about here)

Lastly, I will discuss the stability analysis of the forecast. Table 6-4-1-1 shows the expected proportion of the actor's perceptions (i's perceptions) and the model's predicted proportion regarding the interactions of different perceptions (Joint perceptions). The actors' perceptions suggest that there does not exist a possible compromise about the issue, with none of the perceptions in this simulation denoting a possible compromise. The two largest perception categories are status quo and conflict. The status quo perception constitutes about 43 percent, which is in line with the model's forecast. The conflict category, with about 33 percent, indicates the risk of instability in the region due to the issue at hand.

(See Table 6-4-1-1 about here)

The joint perceptions analysis is a more accurate estimator of the simulation's stability, given that in an international relations context, actors' perceptions of the others' behavior are often fairly different. Sometimes, even in severe situations like crises, one of the parties involved in the conflict may not perceive the situation as such (Akbaba, James and Taydas 2006). In the stability analysis based on joint perceptions, the model forecasts less 'conflict' (19.7 percent) and more 'compel' situations (31.8 percent) between the actors.

Figures 6-4-1-3 thorough 6-4-1-6 presents the single actor i's and joint perceptions over the two rounds of bargaining. Two interesting results are the conflict perception's (both i's and joint) tendency to increase and status quo perceptions persistence both of which does not bode well for a peaceful resolution to the issue.

(Figures 6-4-1-3 through 6-4-1-6 are about here)

6.4.2 Position Shifts

Since the model did not produce much in the way of dynamics, position switches during the short simulation were rare as well. There are only four significant position switches by four actors during the bargaining. These actors are Abkhazia, South Ossetia, GUAM and the moderate Georgian actors (i.e. Georgian Doves).

In Round 1, Russia makes a credible proposal to South Ossetia to switch its position from pro-independence 100 to status quo 80. This makes perfect sense given the realpolitik dynamics in the region. Russia favors maintenance of the status quo and protects South Ossetia as long as it does not raise its independence demands to an unmanageable degree. Similarly, Russia already controls the foreign policy of North Ossetia, which is why the area expert coded the initial position for both the same way.

Along with the Organized Crime and North Ossetia actors, Russia makes a similar proposal to Abkhazia. Abkhazia is in a very similar situation as South Ossetia. They get support from Russia as long as they do not cause further turmoil in the region. As a result, Abkhazia shifts from 100 to 80.

Similar proposals and consequent switches also occurred on the opposite side of the dispute. At round 1, the US made two credible proposals to the moderate wing of the Georgian Government and the GUAM organization. This convincing offer caused substantial shifts. The Georgian government's position shifted from limited autonomy (45) to broader autonomy (65), GUAM also switched to 63.

These two shifts are processes in line with our conclusion on Azerbaijan in the last chapter. As stated, the Nagorno-Karabakh issue can develop in a way favored by

the US rather than Azerbaijan[6]. As the regime theory suggests, a hegemonic power that has a vested interest in maintaining a certain order or regime in an area will push other actors to comply with those rules. And the actors that are most easily convincible for a hegemon are its allies rejecting a regime's foreign policy goals that can have unfavorable effects for the hegemon. Therefore, one can observe substantial bargaining between politically closer actors, rather than between those with opposing goals. On matters like energy security, the US, and to some degree the EU, need to maintain a security regime capable of producing and providing transit areas. The analysis shows how energy security issues influence the US' and European foreign policy. These two important actors shape the preferences of locally important actors to prevent further crises in the regions that are vital for energy security.

There were no other significant policy position shifts in this simulation.

6.4.3 Analysis of Perceptions and Stability

Figures 6-4-3-1 to 6-4-3-7 show the perceptions of the most important actors involved in this bargaining graphically. Table 6-4-3-1 presents the verbal summaries of the same perceptions at the end of the bargaining.

Figures 6-4-3-1 and 6-4-3-2 present the almost identical Russian and South Ossetian perceptions at the end of round 2. Russia's and South Ossetia's perception is diametrically opposed to the position of the Georgian Hawks and the Georgian Parliament. But this divergence might not entail a conflict, because the joint perceptions fall into the stalemate quadrant. Interestingly, Russia and South Ossetia

---

[6] The forecast for the last six rounds of bargaining zigzagged between Azeri and American positions that led us to conclude one of these two positions is likely to occur.

and their rivals do not appear to have conflictual perceptions, such as the US or EU. However, this is not surprising considering that at the end of the bargaining process the Russian position prevails. The US and the EU are not satisfied with the outcome but accept the stalemate.

(Figures 6-4-3-1, 6-4-3-2 and Table 6-4-3-1 about here)

There are three separate Georgian actors whose perceptions completely differ from those of the other actors. The Georgian Doves, i.e. President Saakashvili and his supporters who support the moderate position, have a perception equaling that of the US and the OSCE in that the US made them shift to the moderate position in round 2. The moderate Georgian actors have a stalemate perception of all the other actors but three. This result is plausible, since the bargaining process ended with the Russian position, which is undesirable and also unchallengeable for Georgia. This type of relationship causes a stalemate perception. An interesting result is also the Georgian moderates' perception of conflict with the EU (i.e. Georgian Doves). Although their policy positions are quite similar at the end of round 2, Georgia views its relations with the EU as difficult. An analysis of the actors' opportunities seems to resolve this puzzle. The expected utility model also provides an analysis of used and missed opportunities during a bargaining round. One can observe that all pro-South Ossetian actors and Russia attempt a position shift of the EU toward the Ossetian or the status quo positions. In fact, the EU sees the proposals from South Ossetia, Abkhazia and North Ossetia proposals as credible, although they were not sufficient in making the EU switch to a pro-Ossetian position. However, the bargaining between the EU and breakaway or hostile regions might have skewed the Georgian perceptions of the

Union. The same results can be observed regarding the EU's perceptions when it perceives actors like the Georgian moderates and the US as 'being in the conflict quadrant'.

(See Figure 6-4-3-3 about here)

The perceptions of the Georgian Hawks and the Georgian Parliament are not as complex. As figures 6-4-3-4 and 6-4-3-5 suggest, these two hardliner actors are fairly unsatisfied with the outcome and perceive the entire range of other actors in a conflictual way. One difference lays in the conflict perception values with South and North Ossetia - Abkhazia's and Russia's values are more distant from the center than those of the Georgian Doves or the US. The US does not have a stalemate relation with Russia and pro-Russian actors, as was the case in the two conflicts analyzed in the previous chapters. The US and Russia are in an apparent power struggle in the region; this conflict primarily revolves around issues related to energy resources matters. This rivalry will be discussed more in detail in the next part. All things considered, the analysis of perceptions confirms the model's prediction of the status quo's perseverance.

(Figures 6-4-3-4 through 6-4-3-7 are about here)

6.5. Discussion

What does this simulation with no dynamics and gridlock perceptions tell us? This expected utility analysis, combined with the latest developments of Georgian-Russian relations and the South Ossetia issue, suggests that the conflict short of diplomatic

crisis or war will continue in the region. In this situation, Russia and its smaller adherents will play hardball with Georgia, supported by the US and EU.

The Georgian-Russian relations in the last two years can serve as an example for the kind of relationship one can expect in the future. Specific issues that have led to the conflicts in the past can emerge again.

First of all, Russia is likely to continue using its energy exports as a powerful leverage on Georgia, just the way they controlled Ukraine at the beginning of 2006. In January 2006, the gas and electricity lines from Russia were bombed, allegedly by terrorists. It left Georgia in a severe energy crisis, where even citizens in the country's capital Tbilisi had to endure electricity outages for several weeks. President Saakashvili quickly interpreted the situation as a Russian conspiracy against Georgia because of the Caspian pipelines (e.g. BTC) that go through Georgia. In fact, Russia did neither repair the cut off lines immediately nor increased it the gas supply to Azerbaijan, which could have been transported to Georgia.

The second point of contention between Georgia and Russia concerns the Russian peacekeeping troops in South Ossetia. Georgia tries to get rid of the Russian soldiers in its territory and South Ossetia. The Russians started stationing troops in Georgia since the early 19th century, and although Russia agreed to pull out its troops in 1999, it still has not completed the process. In addition to that, Georgia makes the Russian troop withdrawal from South Ossetia a prerequisite to the resolution of the issue. However, neither Russia nor South Ossetia agrees. The troop withdrawal issue is one of the most contentious matters between Russia and Georgia.

The political problems mentioned led to a new low point in the relationship of the two countries in May 2006. Russia banned two large import products from Georgia: wine (a matter of national pride for Georgians) and mineral water, both due to safety concerns. The Georgian government denies safety problems and declared Russia's acts were politically motivated. The wine and water crisis has become so profound that the Georgian Parliament openly discusses to quit the Commonwealth of Independent States. Russia quickly declared such a step would be a disaster for Georgia's economy. Given the intention of Georgia to join the NATO and EU, this could be a big blow to Russian foreign policy.

All these disagreements between Georgia and Russia are likely to continue, as the Georgia attempts to get closer to West, while Russia tries hard to establish its lost authority on Georgia. In fact, the last issue causing a small crisis between the two occurred when Russian President Vladimir Putin declared the vote on Montenegro's independence could serve as an example for the frozen conflicts[7] in the region. Naturally, this caused a tremendous outcry by governments in countries like Georgia and Azerbaijan. If Russia seriously pushes for referenda in the breakaway regions that it fully supported in the last decade, the conflict could get out of control.

As mentioned above, all these issues can increase the severity of the conflict between the two countries. In this power struggle, the US and Turkey are very likely to support Georgia. President Bush recently wrote a letter to the Kazakh President in

---

[7] Frozen conflict refers to a conflict where parties involved stopped fighting despite no resolution to the conflict is achieved. Although a legal resolution is not present, the outright hostilities and casualties are stopped. There are many such conflicts in ex-Soviet republics such as South Ossetia, Abkhazia, Nagorno-Karabakh, Transnistria.

order to begin a pipeline project that is planned to take place on the Caspian seabed

and would carry Kazakh oil and gas to BTC. Turkey supports the US in this process.

6.6 Appendix to the Chapter: Information on Involved Actors

The South Ossetian President Eduard Kokoiti

In December 2001, one-time wrestling champion and Russian citizen Eduard Kokoiti won the presidency of the unrecognized republic of South Ossetia in an unrecognized election. He received 53 percent of the run-off ballot. Kokoiti (or Kokoyev), is a businessman and a pro-Russian politician with a communist background. He was 37 years old when he was elected. He openly admits that he is in favor of uniting with North Ossetia to become a part of the Russian Federation. Kokoiti supports the Russian presence in the region and perceives Russia as the sole protector of the South Ossetian unrecognized republic. Naturally, he maintains good relations with Abkhazia, since their independence aims and problems with the Georgian government are almost identical (BBC News 2006).

North Ossetia and President Taymuraz Mamsurov

North Ossetia is one of the smallest and most industrialized autonomous regions in the South Caucasus. It has a potential for energy resources yet to be revealed. It has also suffered from the spillover effects of the neighboring conflicts in the Caucasus. The Beslan attack in 2004 killed more than 400 people, most of which were school children. It is also faced with thousands of refugees from South Ossetia who came to the North in the early 1990s because of the conflict. President Mamsurov was suggested by Russian President Putin and approved by the North Ossetian parliament in 2004, after the resignation of former President Dzasokhov. Mamsurov is a Russian

loyalist and a staunch supporter of the unity of North and South Ossets. He tries to

strengthen ties with the South Ossetian people (BBC News 2006).

The Open Society Institute and the Soros Foundation

OSI was established by investor George Soros to help countries to succeed in their

transition from communism to democracy. The Institute and the Foundation both aim

at shaping public policy to promote democratization and democratic governments,

human rights, and help the initiation of economic, legal, and social reforms. These

two institutions also promote the rule of law, education, public health, and

independent media in former Communist countries or countries transiting to

democracy. At the same time, OSI works on issues such as combating corruption and

rights abuses (OSI Website 2006).

GUAM

The GUAM Organization for Democracy and Economic Development is composed

of four CIS states: Georgia, Ukraine, Azerbaijan and Moldova. This organization,

although not very effective, has the goal of creating a counterweight to the Russian

influence on CIS countries and is perceived as hostile by Russia. This year, the

organization discussed setting up a peacekeeping force in the region. GUAM is

supported by the US.

Table 6-1-2-1 Caucasus Region Economic Indicators (From the EIA Website)

Country	2005 GDP ($US billion dollars)*	2005 Real GDP Growth Rate (%)	2006F Real GDP Growth Rate (%)	2005E Per Capita GDP (US$)	2005 Population (Millions)
Armenia	4.9	13.9	8.5	1495	3.26
Azerbaijan	13.0	26.4	21.6	1488	8.44
Georgia	6.5	9.2	8.0	993	4.99

*Billion 1995 $US at Market Exchange Rate, Source: Global Insight

Table 6-1-2-2 Caucasus Region Energy Consumption, CO_2 Emissions, 2003 (From the EIA Website)

Country	Total Energy Cons.*	Oil	Natural Gas	Coal	Nuclear	Hydro	Other	Electricity Consumption*	Electricity Imp(-) Exp(+)	CO_2 Emmis.**
Armenia	0.172	49%	28%	0%	12%	10%	0%	0.0198	4.16%	8.99
Azerbaijan	0.634	42%	54%	0%	0%	4%	0%	0.0593	-8.89%	36.48
Georgia	0.139	18%	27%	0%	0%	53%	0%	0.0232	-12.48%	3.76

*Quadrillion Btu
**Million metric tons of carbon dioxide, ˜*% of electricity consumption*

Table 6-1-2-3 Caucasus Region Energy Statistics, 2004 (From the EIA Website).

OIL			
Country	Reserves (in billion bbl/d)	Production (1,000 bbl/d)	Consumption (1,000 bbl/d)
Armenia	0.0	0.0	42.0
Azerbaijan	0.7-1.3	328.0	114.0
Georgia	0.3	2	12.5
NATURAL GAS			
Country	Reserves (Tcf)	Production (Bcf)	Consumption (Bcf)
Armenia	0	0.0	47.0
Azerbaijan	30	180.0	330.0
Georgia	0.3	0.71	35.3
ELECTRICITY			
Country	Capacity (GW)	Generation (Bill. kwh)	Consumption (Bill. kwh)
Armenia	2.6	5.7	5.8
Azerbaijan	5.4	21.3	17.4
Georgia	4.4	7.3	9.7

Source: CIS & E. European Energy Databook, CIA, EIA, IEA, Oil and Gas Journal

Table 6-3-1-1 The Expert Generated Data.

Actor	Resource (1-100)	Position (0-100)	Salience (1-100)
European Union	80	65	20
United States	100	65	100
Georgia-Doves (President Saakashvili, PM Noghaideli, Conflict Resolution Minister Khaindrava, MFA Bezhuashvili)	80	45	100
Georgia-Hawks (Defense Min. Okruashvili, Interior Min. Merabishvili)	60	20	100
Georgian Parliament	60	20	100
Russia	300	80	100
South Ossetia (Kokoiti)	80	100	100
OSCE	100	65	80
Open Society Foundation (Soros)	40	65	60
North Ossetia	30	80	80
Abkhazia	50	100	80
United Nations Secretary General	100	65	40
GUUAM countries	20	45	60
Organized Crime (Transnational: Russian, Georgian, South and North Ossetian)	60	80	100

Table 6-4-1-1 Stability Summary Tables for Round 2

Perceptions (percent): Expected proportion by the model for relationship between actors based on perceptions.

No Issue	Conflict	Compromise	Status Quo	Compel
15.38461	32.96703	0	42.85714	8.791209

Interaction of Perceptions (percent): Predicted proportion by the model for relationship between actors based on interaction of perception.

No Issue	Conflict	Compromise	Status Quo	Compel
15.38461	19.78022	8.791209	31.86813	24.17583

Table 6-4-3-1 Verbal Summary of Perceptions at Round 2

Focal Group	Rival Group	Focal View	Rival View	Joint View
Russia	SOssetia	No Issue	No Issue	No Issue
Russia	OrgCrime	No Issue	No Issue	No Issue
Russia	Abkhazia	No Issue	No Issue	No Issue
Russia	NOSsetia	No Issue	No Issue	No Issue
Russia	USA	- Stalemate	- Stalemate	- Stalemate
Russia	GeorgiaDov	- Stalemate	- Stalemate	- Stalemate
Russia	OSCE	+ Stalemate	+ Stalemate	+ Stalemate
Russia	UNSG	+ Compel	+ Compel	+ Compel
Russia	EU	+ Compel	+ Compel	+ Compel
Russia	GUUAM	+ Stalemate	+ Stalemate	+ Stalemate
Russia	OSF	+ Stalemate	+ Stalemate	+ Stalemate
Russia	GeorgiaPar	+ Stalemate	+ Conflict	- Give In
Russia	GeorgiaHaw	+ Stalemate	+ Conflict	- Give In
SOssetia	Russia	No Issue	No Issue	No Issue
SOssetia	OrgCrime	No Issue	No Issue	No Issue
SOssetia	Abkhazia	No Issue	No Issue	No Issue
SOssetia	NOSsetia	No Issue	No Issue	No Issue
SOssetia	USA	- Stalemate	- Stalemate	- Stalemate
SOssetia	GeorgiaDov	- Stalemate	- Stalemate	- Stalemate
SOssetia	OSCE	- Stalemate	- Stalemate	- Stalemate
SOssetia	UNSG	+ Stalemate	+ Stalemate	+ Stalemate
SOssetia	EU	+ Compel	+ Compel	+ Compel
SOssetia	GUUAM	+ Stalemate	+ Stalemate	+ Stalemate
SOssetia	OSF	+ Stalemate	+ Stalemate	+ Stalemate
SOssetia	GeorgiaPar	+ Stalemate	- Conflict	- Give In
SOssetia	GeorgiaHaw	+ Stalemate	- Conflict	- Give In
OrgCrime	Russia	No Issue	No Issue	No Issue
OrgCrime	SOssetia	No Issue	No Issue	No Issue
OrgCrime	Abkhazia	No Issue	No Issue	No Issue
OrgCrime	NOSsetia	No Issue	No Issue	No Issue
OrgCrime	USA	- Stalemate	- Stalemate	- Stalemate
OrgCrime	GeorgiaDov	- Stalemate	- Stalemate	- Stalemate
OrgCrime	OSCE	- Stalemate	- Stalemate	- Stalemate
OrgCrime	UNSG	+ Stalemate	+ Stalemate	+ Stalemate
OrgCrime	EU	+ Compel	+ Compel	+ Compel
OrgCrime	GUUAM	+ Stalemate	+ Stalemate	+ Stalemate
OrgCrime	OSF	+ Stalemate	+ Stalemate	+ Stalemate
OrgCrime	GeorgiaPar	+ Stalemate	- Conflict	- Give In
OrgCrime	GeorgiaHaw	+ Stalemate	- Conflict	- Give In
Abkhazia	Russia	No Issue	No Issue	No Issue
Abkhazia	SOssetia	No Issue	No Issue	No Issue
Abkhazia	OrgCrime	No Issue	No Issue	No Issue
Abkhazia	NOSsetia	No Issue	No Issue	No Issue
Abkhazia	USA	- Stalemate	- Stalemate	- Stalemate
Abkhazia	GeorgiaDov	- Stalemate	- Stalemate	- Stalemate
Abkhazia	OSCE	- Stalemate	- Stalemate	- Stalemate

Focal Group	Rival Group	Focal View	Rival View	Joint View
Abkhazia	UNSG	+ Stalemate	+ Stalemate	+ Stalemate
Abkhazia	EU	+ Compel	+ Compel	+ Compel
Abkhazia	GUUAM	+ Stalemate	+ Stalemate	- Stalemate
Abkhazia	OSF	+ Stalemate	- Stalemate	- Stalemate
Abkhazia	GeorgiaPar	- Stalemate	- Conflict	- Give In
Abkhazia	GeorgiaHaw	- Stalemate	- Conflict	- Give In
NOSsetia	Russia	No Issue	No Issue	No Issue
NOSsetia	SOssetia	No Issue	No Issue	No Issue
NOSsetia	OrgCrime	No Issue	No Issue	No Issue
NOSsetia	Abkhazia	No Issue	No Issue	No Issue
NOSsetia	USA	- Stalemate	- Stalemate	- Stalemate
NOSsetia	GeorgiaDov	- Stalemate	- Stalemate	- Stalemate
NOSsetia	OSCE	- Stalemate	- Stalemate	- Stalemate
NOSsetia	UNSG	+ Stalemate	+ Stalemate	+ Stalemate
NOSsetia	EU	+ Compel	+ Compel	+ Compel
NOSsetia	GUUAM	+ Stalemate	- Stalemate	- Stalemate
NOSsetia	OSF	- Stalemate	- Stalemate	- Stalemate
NOSsetia	GeorgiaPar	- Stalemate	- Conflict	- Give In
NOSsetia	GeorgiaHaw	- Stalemate	- Conflict	- Give In
USA	Russia	+ Stalemate	+ Stalemate	+ Stalemate
USA	SOssetia	+ Stalemate	+ Stalemate	+ Stalemate
USA	OrgCrime	+ Stalemate	+ Stalemate	+ Stalemate
USA	Abkhazia	+ Stalemate	+ Stalemate	+ Stalemate
USA	NOSsetia	+ Stalemate	+ Stalemate	+ Stalemate
USA	GeorgiaDov	No Issue	No Issue	No Issue
USA	OSCE	No Issue	No Issue	No Issue
USA	UNSG	+ Conflict	+ Conflict	+ Conflict
USA	EU	+ Conflict	+ Conflict	+ Conflict
USA	GUUAM	+ Conflict	+ Conflict	+ Conflict
USA	OSF	+ Conflict	+ Conflict	+ Conflict
USA	GeorgiaPar	+ Stalemate	+ Conflict	- Give In
USA	GeorgiaHaw	+ Stalemate	+ Conflict	- Give In
GeorgiaDov	Russia	+ Stalemate	+ Stalemate	+ Stalemate
GeorgiaDov	SOssetia	+ Stalemate	+ Stalemate	+ Stalemate
GeorgiaDov	OrgCrime	+ Stalemate	+ Stalemate	+ Stalemate
GeorgiaDov	Abkhazia	+ Stalemate	+ Stalemate	+ Stalemate
GeorgiaDov	NOSsetia	+ Stalemate	+ Stalemate	+ Stalemate
GeorgiaDov	USA	No Issue	No Issue	No Issue
GeorgiaDov	OSCE	No Issue	No Issue	No Issue
GeorgiaDov	UNSG	+ Conflict	+ Conflict	+ Conflict
GeorgiaDov	EU	+ Conflict	+ Conflict	+ Conflict
GeorgiaDov	GUUAM	+ Conflict	+ Conflict	+ Conflict
GeorgiaDov	OSF	+ Conflict	+ Conflict	+ Conflict
GeorgiaDov	GeorgiaPar	+ Stalemate	+ Conflict	- Give In
GeorgiaDov	GeorgiaHaw	+ Stalemate	+ Conflict	- Give In
OSCE	Russia	- Stalemate	- Stalemate	- Stalemate
OSCE	SOssetia	+ Stalemate	+ Stalemate	+ Stalemate
OSCE	OrgCrime	+ Stalemate	+ Stalemate	+ Stalemate
OSCE	Abkhazia	+ Stalemate	+ Stalemate	+ Stalemate
OSCE	NOSsetia	+ Stalemate	+ Stalemate	+ Stalemate
OSCE	USA	No Issue	No Issue	No Issue
OSCE	GeorgiaDov	No Issue	No Issue	No Issue

Focal Group	Rival Group	Focal View	Rival View	Joint View
OSCE	UNSG	+ Conflict	+ Conflict	+ Conflict
OSCE	EU	+ Conflict	+ Conflict	+ Conflict
OSCE	GUUAM	+ Conflict	+ Conflict	+ Conflict
OSCE	OSF	+ Conflict	+ Conflict	+ Conflict
OSCE	GeorgiaPar	+ Stalemate	+ Conflict	- Give In
OSCE	GeorgiaHaw	+ Stalemate	+ Conflict	- Give In
UNSG	Russia	- Give In	- Give In	- Give In
UNSG	SOssetia	- Stalemate	- Stalemate	- Stalemate
UNSG	OrgCrime	- Stalemate	- Stalemate	- Stalemate
UNSG	Abkhazia	- Stalemate	- Stalemate	- Stalemate
UNSG	NOSsetia	- Stalemate	- Stalemate	- Stalemate
UNSG	USA	- Conflict	- Conflict	- Conflict
UNSG	GeorgiaDov	- Conflict	- Conflict	- Conflict
UNSG	OSCE	- Conflict	- Conflict	- Conflict
UNSG	EU	- Conflict	- Conflict	- Conflict
UNSG	GUUAM	- Conflict	- Conflict	- Conflict
UNSG	OSF	- Conflict	- Conflict	- Conflict
UNSG	GeorgiaPar	- Give In	- Conflict	- Compromise
UNSG	GeorgiaHaw	- Give In	- Conflict	- Compromise
EU	Russia	- Give In	- Give In	- Give In
EU	SOssetia	- Give In	- Give In	- Give In
EU	OrgCrime	- Give In	- Give In	- Give In
EU	Abkhazia	- Give In	- Give In	- Give In
EU	NOSsetia	- Give In	- Give In	- Give In
EU	USA	- Conflict	- Conflict	- Conflict
EU	GeorgiaDov	- Conflict	- Conflict	- Conflict
EU	OSCE	- Conflict	- Conflict	- Conflict
EU	UNSG	+ Conflict	+ Conflict	+ Conflict
EU	GUUAM	- Conflict	- Conflict	- Conflict
EU	OSF	- Conflict	- Conflict	- Conflict
EU	GeorgiaPar	- Give In	- Conflict	- Compromise
EU	GeorgiaHaw	- Give In	- Conflict	- Compromise
GUUAM	Russia	- Stalemate	- Stalemate	- Stalemate
GUUAM	SOssetia	- Stalemate	- Stalemate	- Stalemate
GUUAM	OrgCrime	- Stalemate	- Stalemate	- Stalemate
GUUAM	Abkhazia	- Stalemate	- Stalemate	+ Stalemate
GUUAM	NOSsetia	+ Stalemate	- Stalemate	+ Stalemate
GUUAM	USA	- Conflict	- Conflict	- Conflict
GUUAM	GeorgiaDov	- Conflict	- Conflict	- Conflict
GUUAM	OSCE	- Conflict	- Conflict	- Conflict
GUUAM	UNSG	+ Conflict	+ Conflict	+ Conflict
GUUAM	EU	+ Conflict	+ Conflict	+ Conflict
GUUAM	OSF	- Conflict	- Conflict	- Conflict
GUUAM	GeorgiaPar	- Stalemate	+ Conflict	- Compromise
GUUAM	GeorgiaHaw	- Stalemate	+ Conflict	- Compromise
OSF	Russia	- Stalemate	- Stalemate	- Stalemate
OSF	SOssetia	- Stalemate	- Stalemate	- Stalemate
OSF	OrgCrime	- Stalemate	- Stalemate	- Stalemate
OSF	Abkhazia	+ Stalemate	- Stalemate	+ Stalemate
OSF	NOSsetia	+ Stalemate	+ Stalemate	+ Stalemate
OSF	USA	- Conflict	- Conflict	- Conflict
OSF	GeorgiaDov	- Conflict	- Conflict	- Conflict

Focal Group	Rival Group	Focal View	Rival View	Joint View
OSF	OSCE	- Conflict	- Conflict	- Conflict
OSF	UNSG	+ Conflict	+ Conflict	+ Conflict
OSF	EU	+ Conflict	+ Conflict	+ Conflict
OSF	GUUAM	+ Conflict	+ Conflict	+ Conflict
OSF	GeorgiaPar	- Stalemate	+ Conflict	- Compromise
OSF	GeorgiaHaw	- Stalemate	+ Conflict	- Compromise
GeorgiaPar	Russia	- Conflict	- Stalemate	+ Compel
GeorgiaPar	SOssetia	+ Conflict	- Stalemate	+ Compel
GeorgiaPar	OrgCrime	+ Conflict	- Stalemate	+ Compel
GeorgiaPar	Abkhazia	+ Conflict	+ Stalemate	+ Compel
GeorgiaPar	NOSsetia	+ Conflict	+ Stalemate	+ Compel
GeorgiaPar	USA	- Conflict	- Stalemate	+ Compel
GeorgiaPar	GeorgiaDov	- Conflict	- Stalemate	+ Compel
GeorgiaPar	OSCE	- Conflict	- Stalemate	+ Compel
GeorgiaPar	UNSG	+ Conflict	+ Compel	+ Compromise
GeorgiaPar	EU	+ Conflict	+ Compel	+ Compromise
GeorgiaPar	GUUAM	- Conflict	+ Stalemate	+ Compromise
GeorgiaPar	OSF	- Conflict	+ Stalemate	+ Compromise
GeorgiaPar	GeorgiaHaw	No Issue	No Issue	No Issue
GeorgiaHaw	Russia	- Conflict	- Stalemate	+ Compel
GeorgiaHaw	SOssetia	+ Conflict	- Stalemate	+ Compel
GeorgiaHaw	OrgCrime	+ Conflict	- Stalemate	+ Compel
GeorgiaHaw	Abkhazia	+ Conflict	+ Stalemate	+ Compel
GeorgiaHaw	NOSsetia	+ Conflict	+ Stalemate	+ Compel
GeorgiaHaw	USA	- Conflict	- Stalemate	+ Compel
GeorgiaHaw	GeorgiaDov	- Conflict	- Stalemate	+ Compel
GeorgiaHaw	OSCE	- Conflict	- Stalemate	+ Compel
GeorgiaHaw	UNSG	+ Conflict	+ Compel	+ Compromise
GeorgiaHaw	EU	+ Conflict	+ Compel	+ Compromise
GeorgiaHaw	GUUAM	- Conflict	+ Stalemate	+ Compromise
GeorgiaHaw	OSF	- Conflict	+ Stalemate	+ Compromise
GeorgiaHaw	GeorgiaPar	No Issue	No Issue	No Issue

Map 6-1-1-1 Georgia and its regions: South Ossetia, Abkhazia, Ajaria. (Taken from UNICEF Website)

Ethnolinguistic Groups in the Caucasus Region

Caucasian Peoples

Abkhaz
1 Abkhaz

Circassian
2 A Adygey
3 Cherkess
4 Kabardin

Georgian
5 G Georgian

Dagestani
6 Agul
7 Avar
8 D Dargin
9 l Lak
10 L Lezgin
11 Rutul
12 Tabasaran
13 Tsakhur

Veinakh
14 Chechen
15 Ingush

Other

Indo-European Peoples

Armenian
16 a Armenian

Greek
17 Greek

Iranian
18 K Kurd
19 O Ossetian
20 Talysh

Slavic
21 R Russian

Altaic Peoples

Turkic
22 Z Azeri
23 Balkar
24 Karachay
25 Kumyk
26 Nogay
27 T Turkmen

Mongol
28 Kalmyk

Sparsely populated or uninhabited areas are shown in white.

Republic, oblast, or kray boundary

0 — 100 Kilometers
0 — 100 Miles

734538 (R00397) 1-95

Map 6-1-1-2 Ethno linguistic Groups in Caucasus: South and North Ossetia (From the University of Texas Website)

Figure 6-3-2-1 South Ossetia Crisis Positions

Georgia Hawks Georgian Parliament	Georgia Doves GUUAM	EU US OSCE Open Society F. UNSG	Russia North Ossetia Organized Crime	South Ossetia Abkhazia
20	45	65	80	100
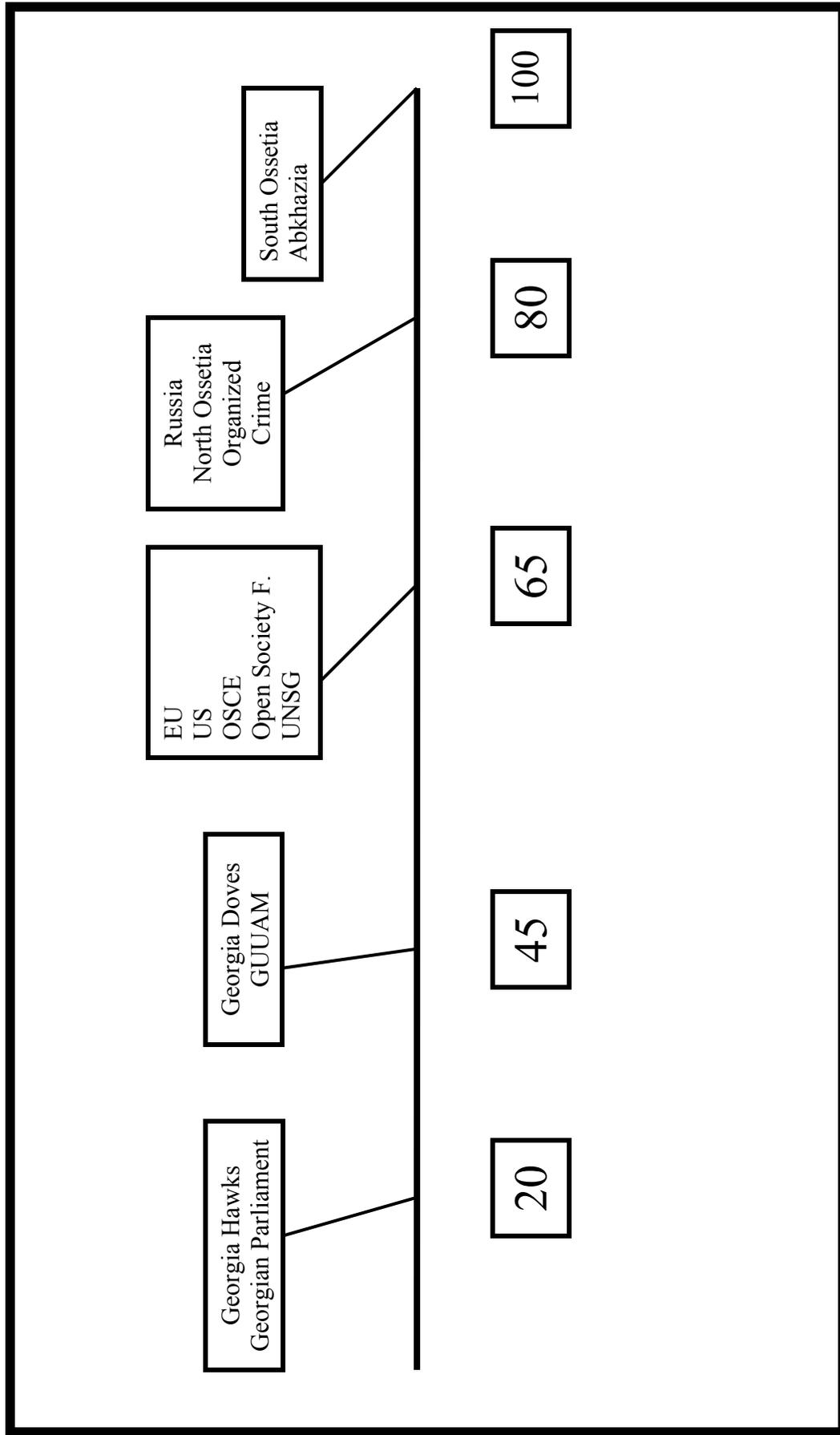
Figure 6-3-3-1 Absolute Capability Distribution
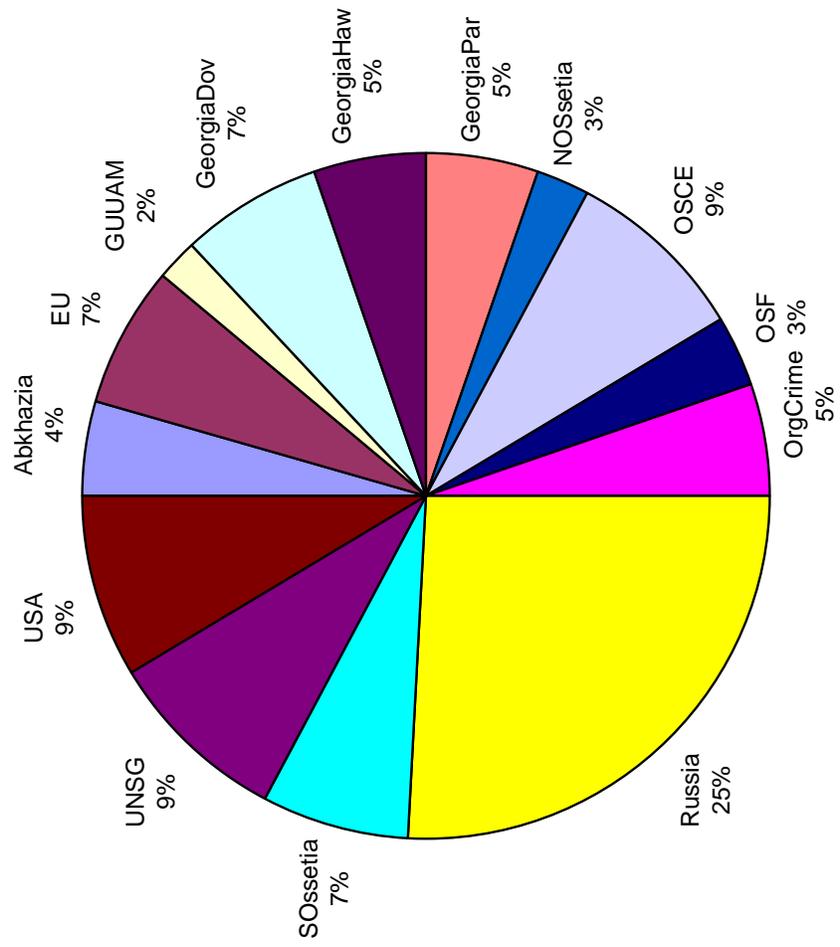
Figure 6-3-3-2 Salience Scores
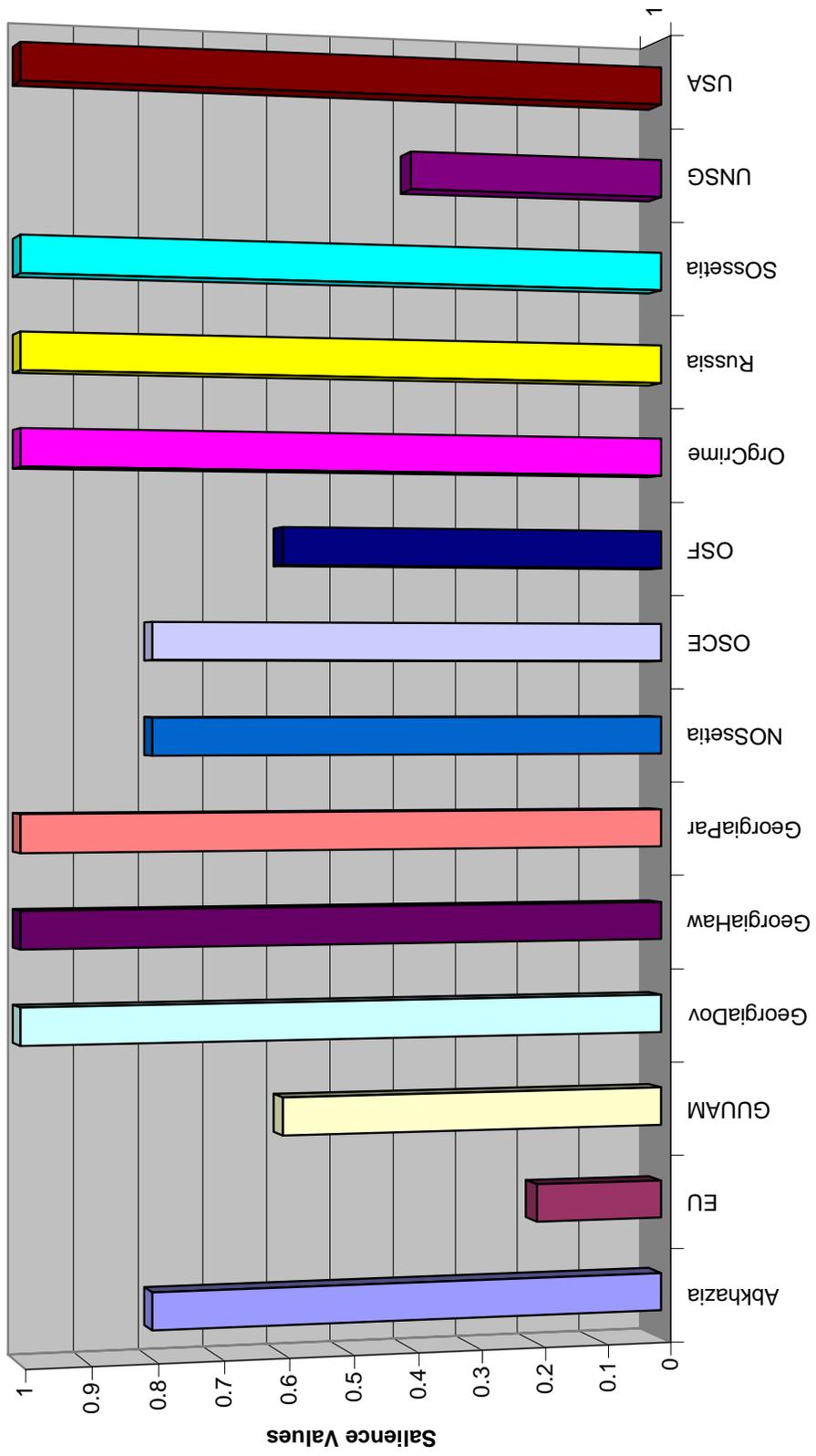
Figure 6-3-3-3 Effective Capability Distribution by Actors

Abkhazia 4%
EU 2%
GUUAM 1%
GeorgiaDov 8%
GeorgiaHaw 6%
GeorgiaPar 6%
NOSsetia 2%
OSCE 8%
OSF 2%
OrgCrime 6%
SOssetia 8%
UNSG 4%

Other 57%
USA 11%
Russia 32%

231
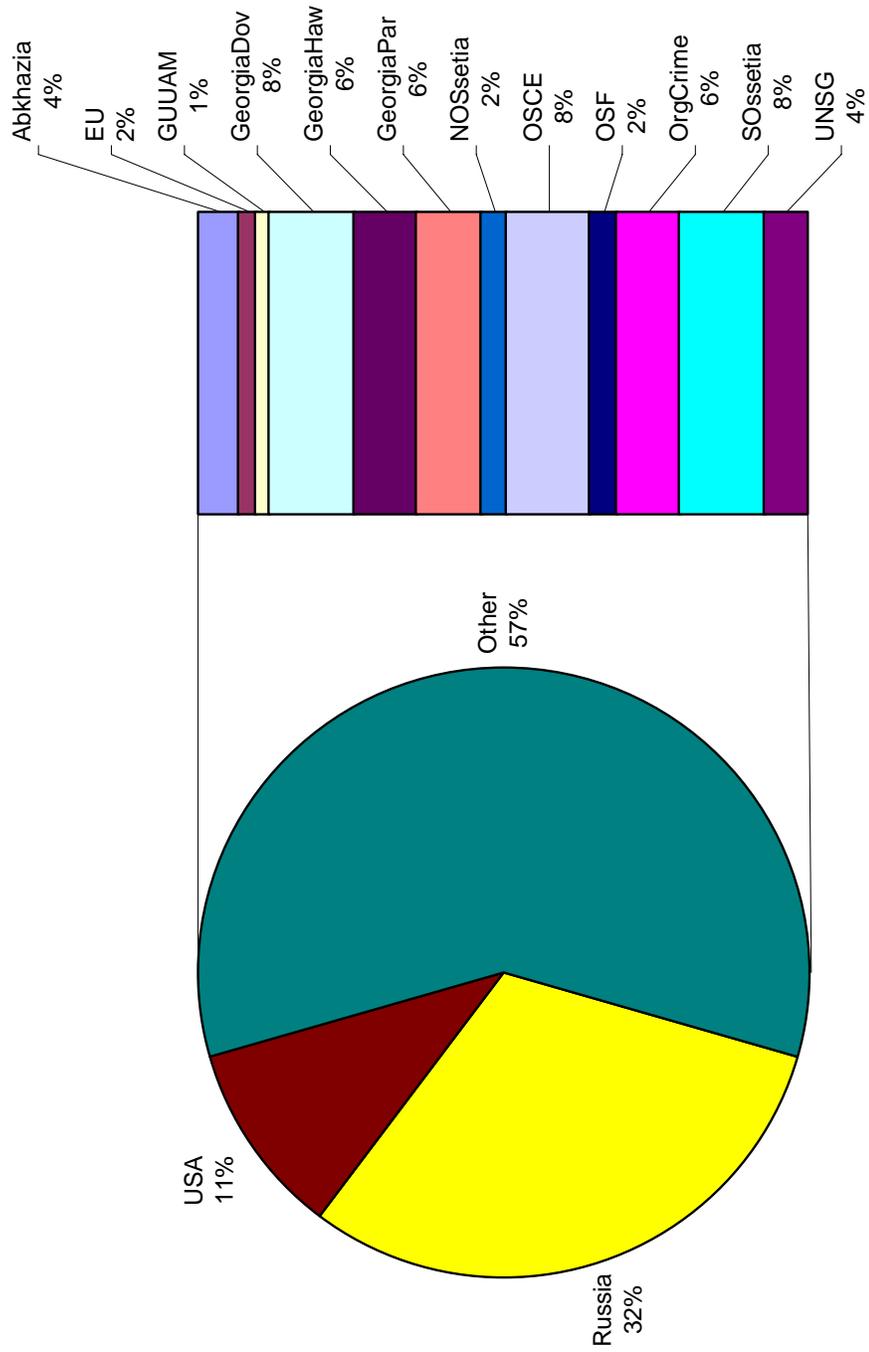
Figure 6-3-3-4 Effective Capability Distribution by Positions

Legend:
- Independence
- Statusquo
- Large Aut.
- Increased Aut.
- Hawks

Independence 12%
Statusquo 40%
Large Aut. 27%
Increased Aut. 9%
Hawks 12%
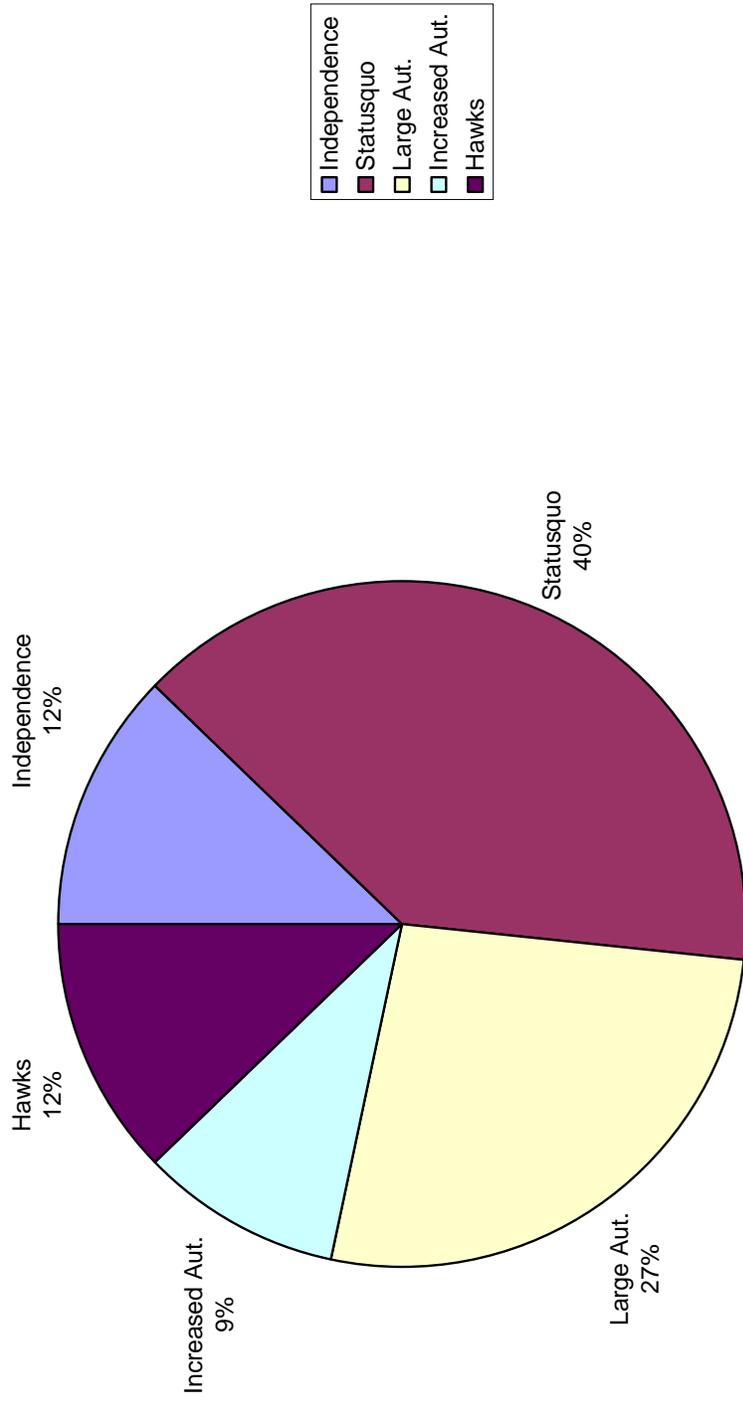
Figure 6-3-3-5 Effective Capability Distribution by Positions, Total Capability Values
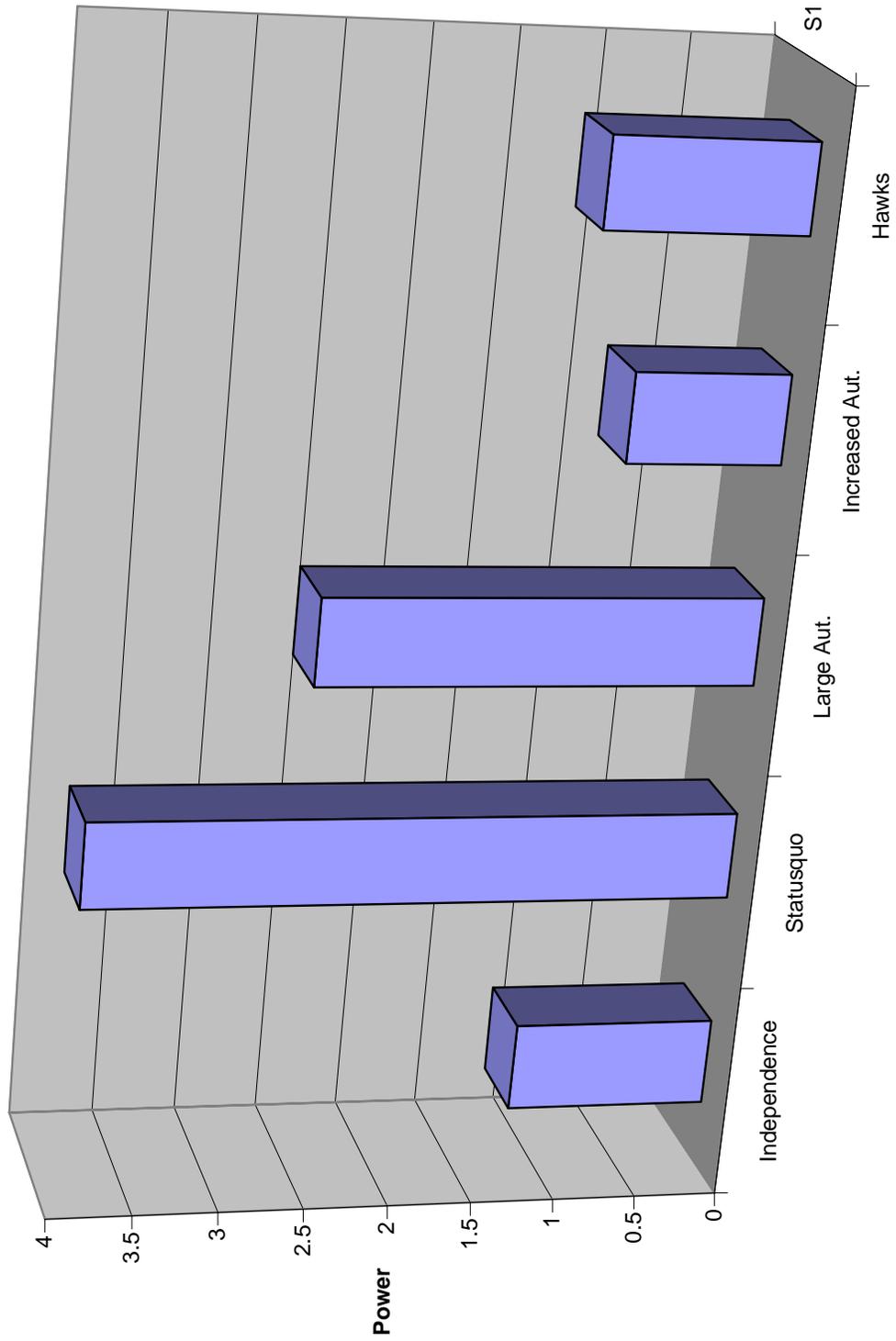
Figure 6-3-3-6 Simulation Min-Max-Average Values
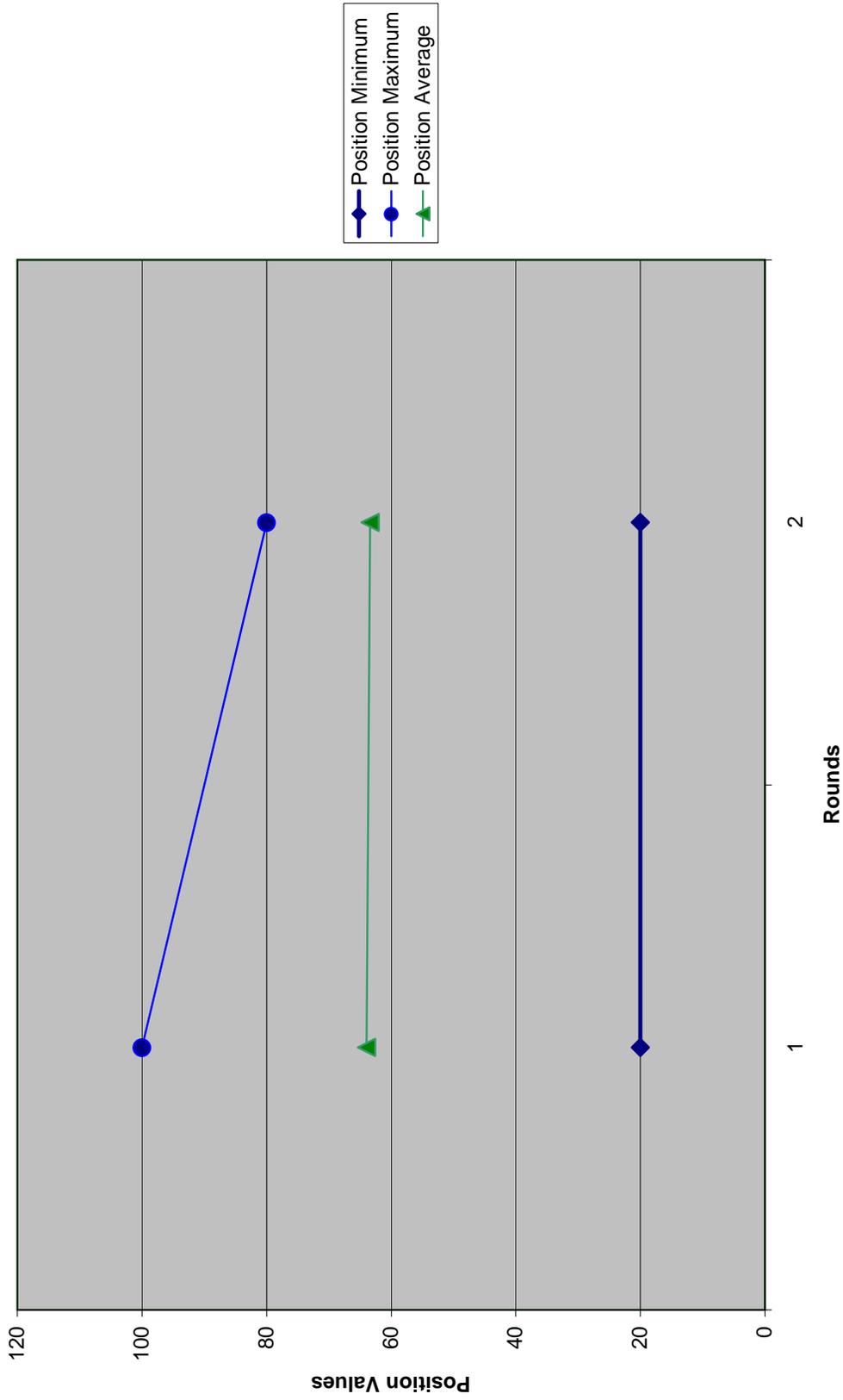
Figure 6-4-1-1 Crisis Forecast
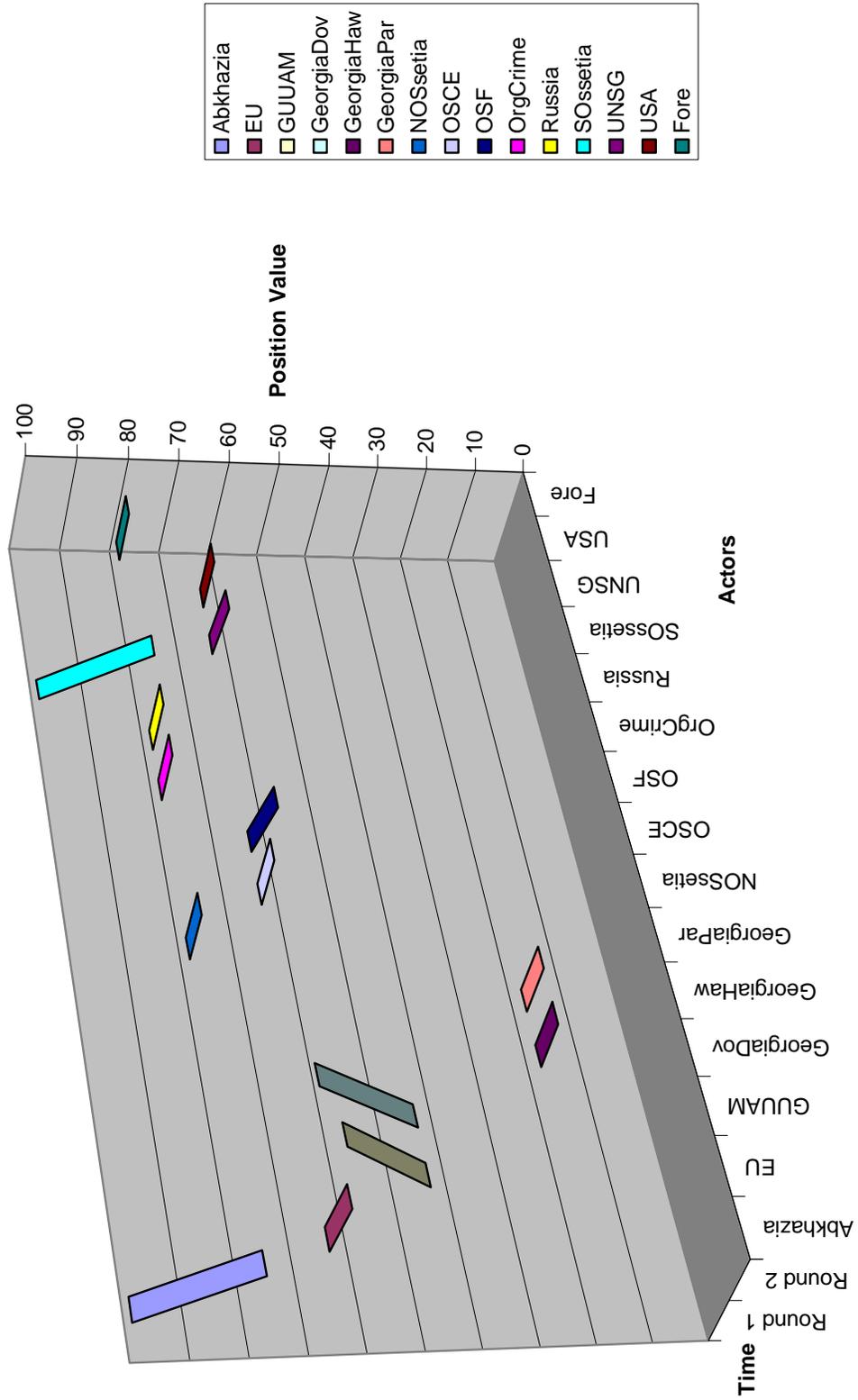
Figure 6-4-1-2 Crisis Forecast
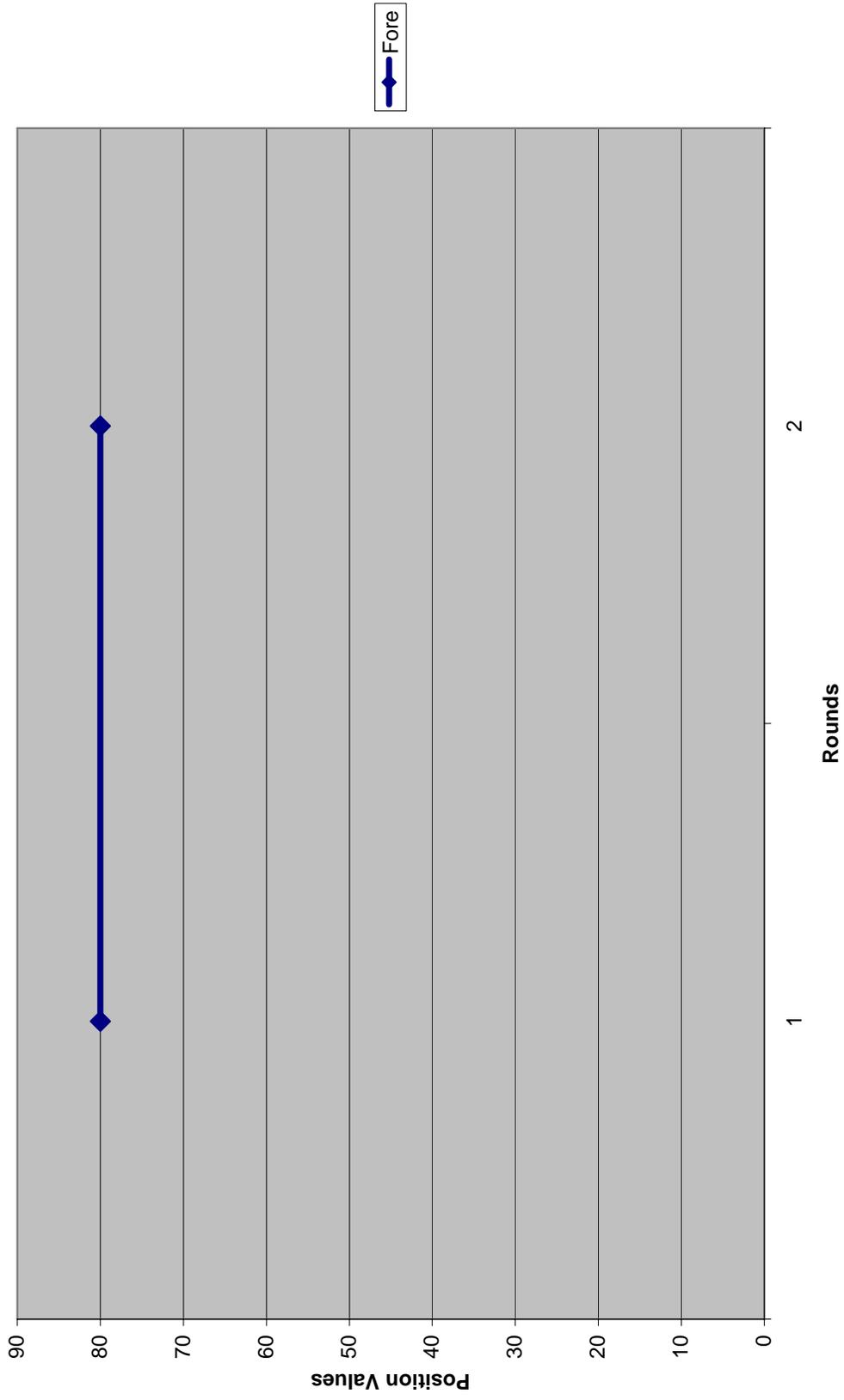
Figure 6-4-1-3 *I*'s View Over Time
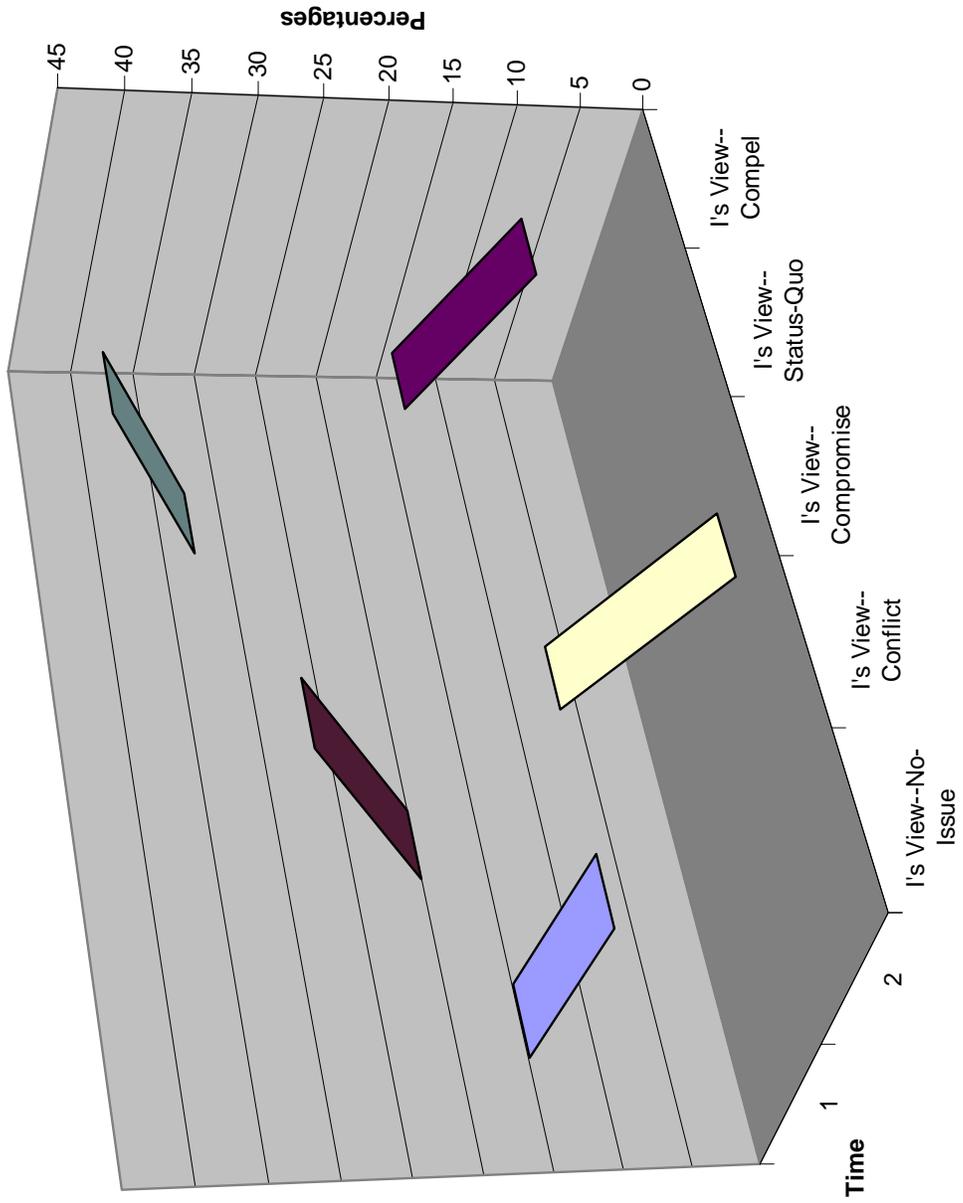
Figure 6-4-1-4 I's View over Time
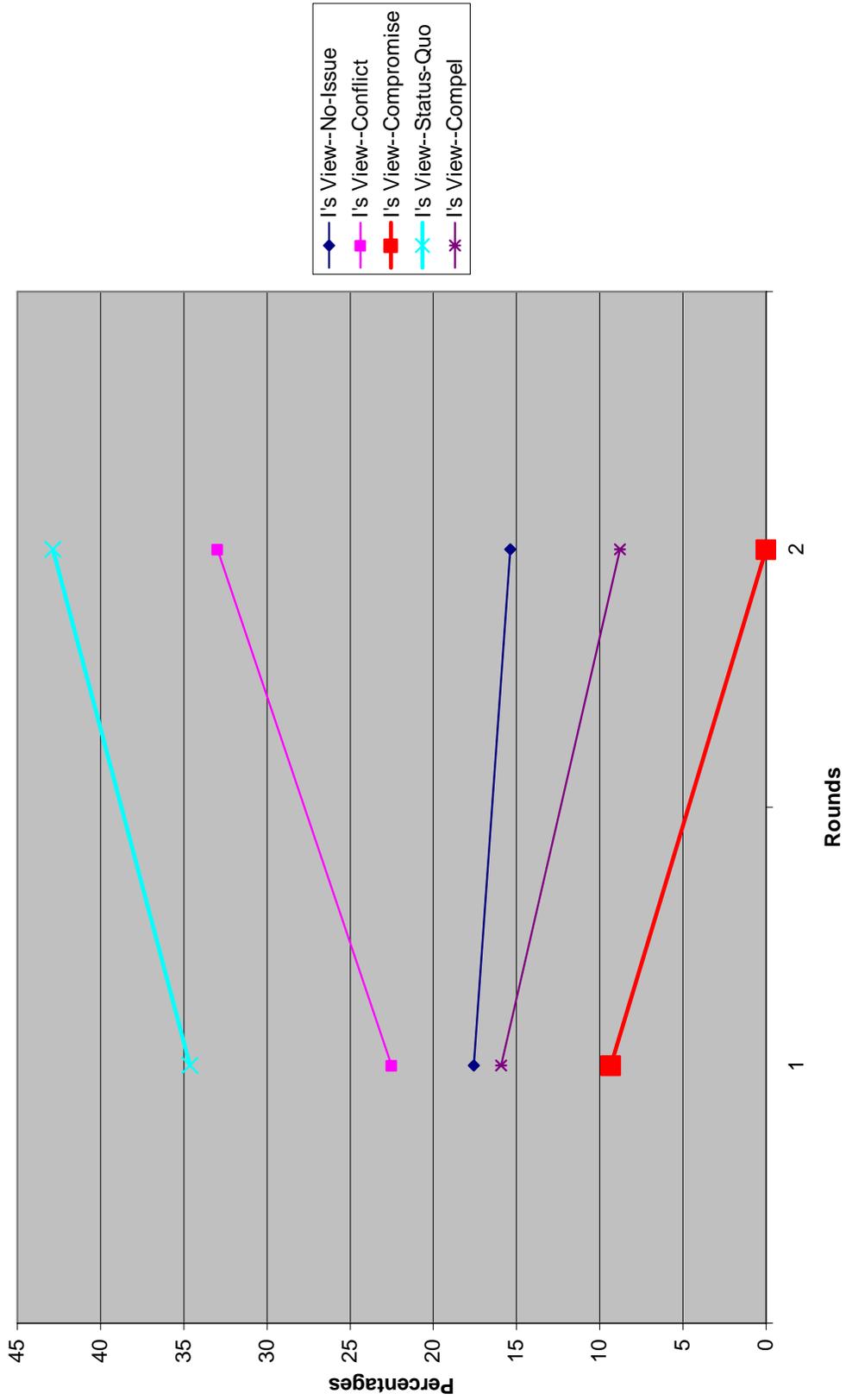
Figure 6-4-1-5 Joint View over Time (3D)
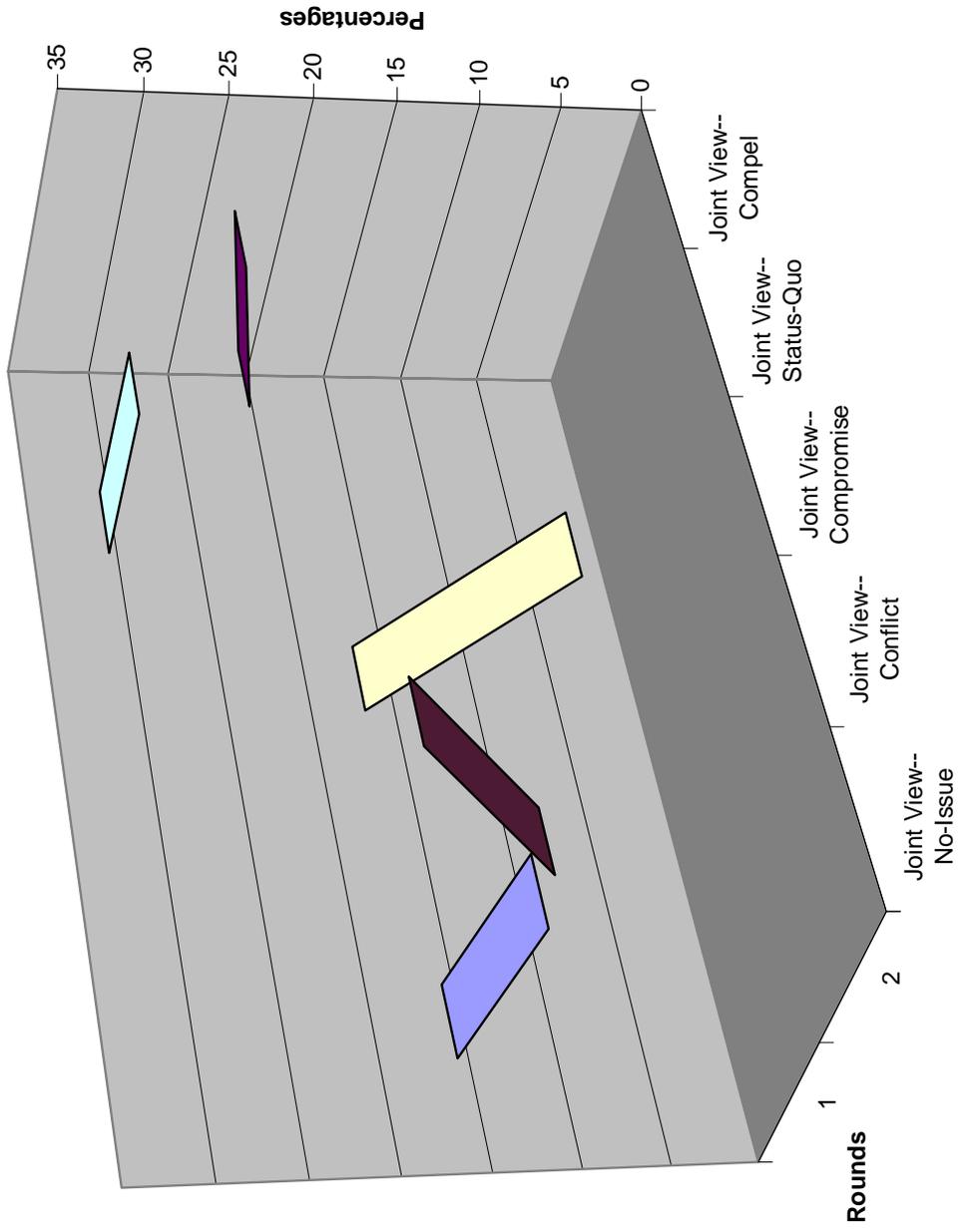
Figure 6-4-1-5 Joint Perceptions over Time

Legend:
- Joint View--No-Issue
- Joint View--Conflict
- Joint View--Compromise
- Joint View--Status-Quo
- Joint View--Compel

X-axis: Rounds (1, 2)
Y-axis: Percentage (0, 5, 10, 15, 20, 25, 30, 35)
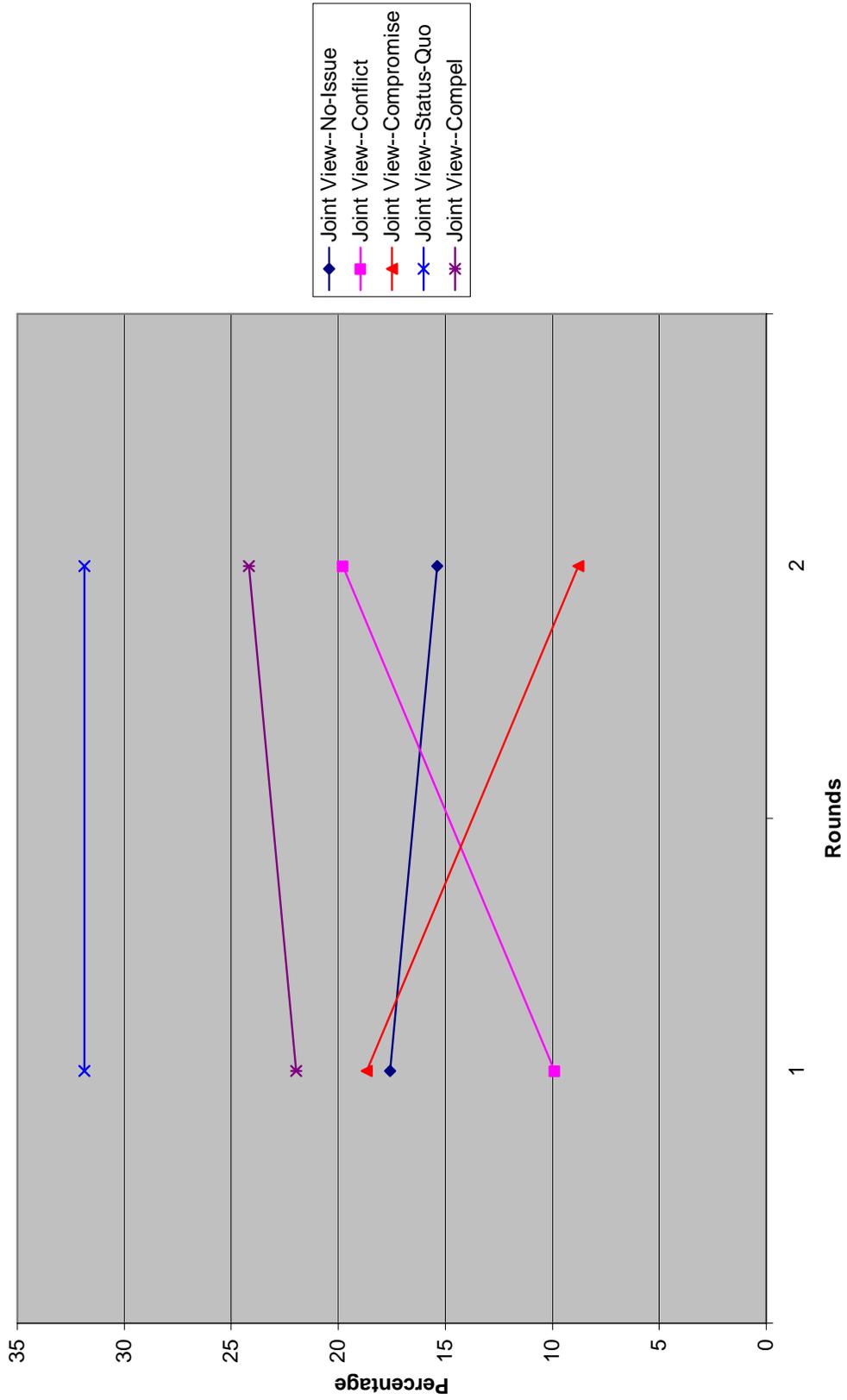
Figure 6-4-3-1 Expected Utility Assesments: Russia's Perceptions
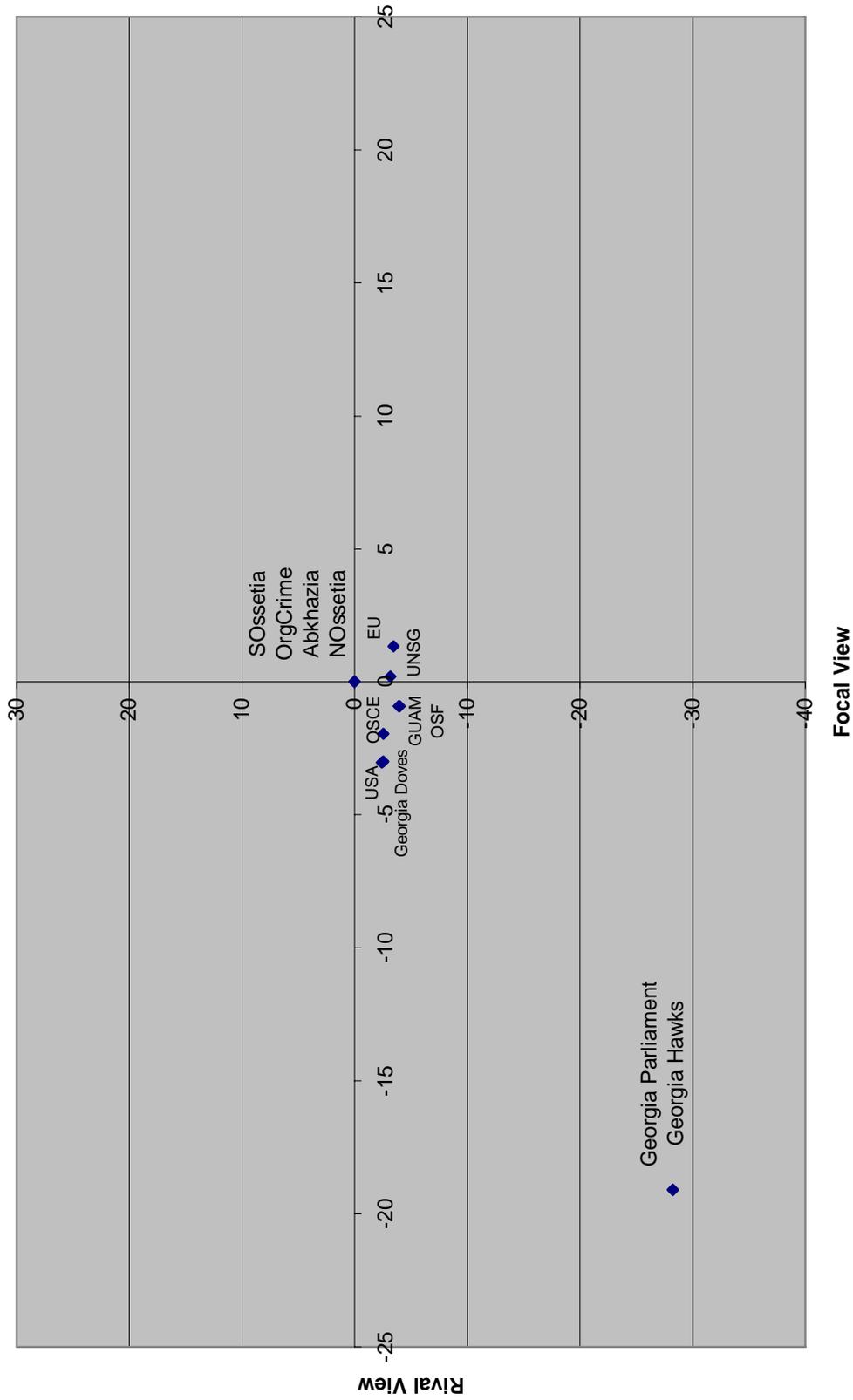
Figure 6-4-3-2 Expected Utility Assesments: South Ossetian Administrations' Perceptions

Russia
OrgCrime
Abkhazia
NOssetia
EU
UNSG
OSCE
USA
Georgia Doves
GUAM
OSF

Georgia Parliament
Georgia Hawks

FOcal View

Rival View

35   25   15   5   -5   -15   -25   -35

-25   -20   -15   -10   -5   0   5   10   15   20   25

242
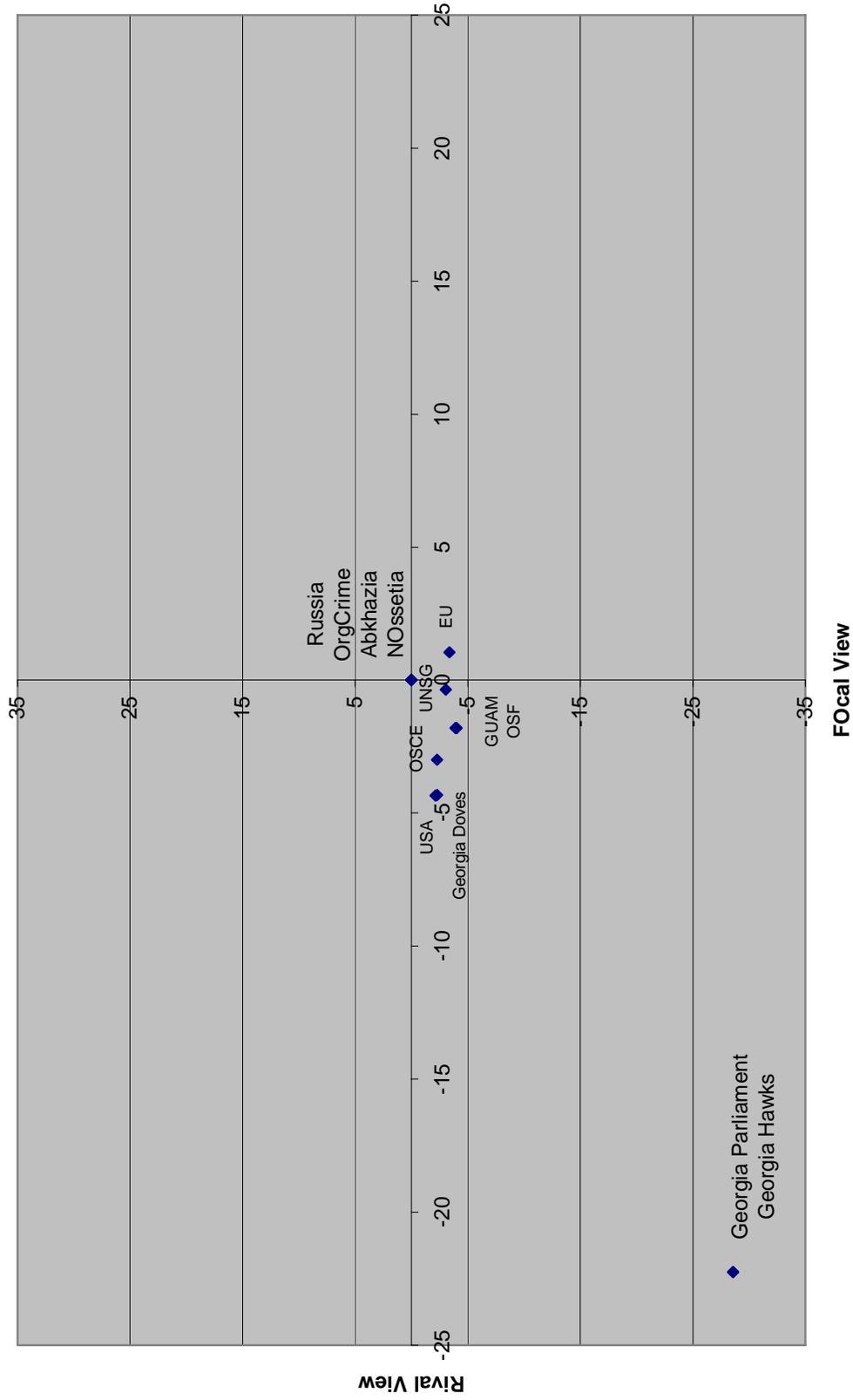
Figure 6-4-3-3 Expected Utility Assesments: Georgian Doves' Perceptions

243
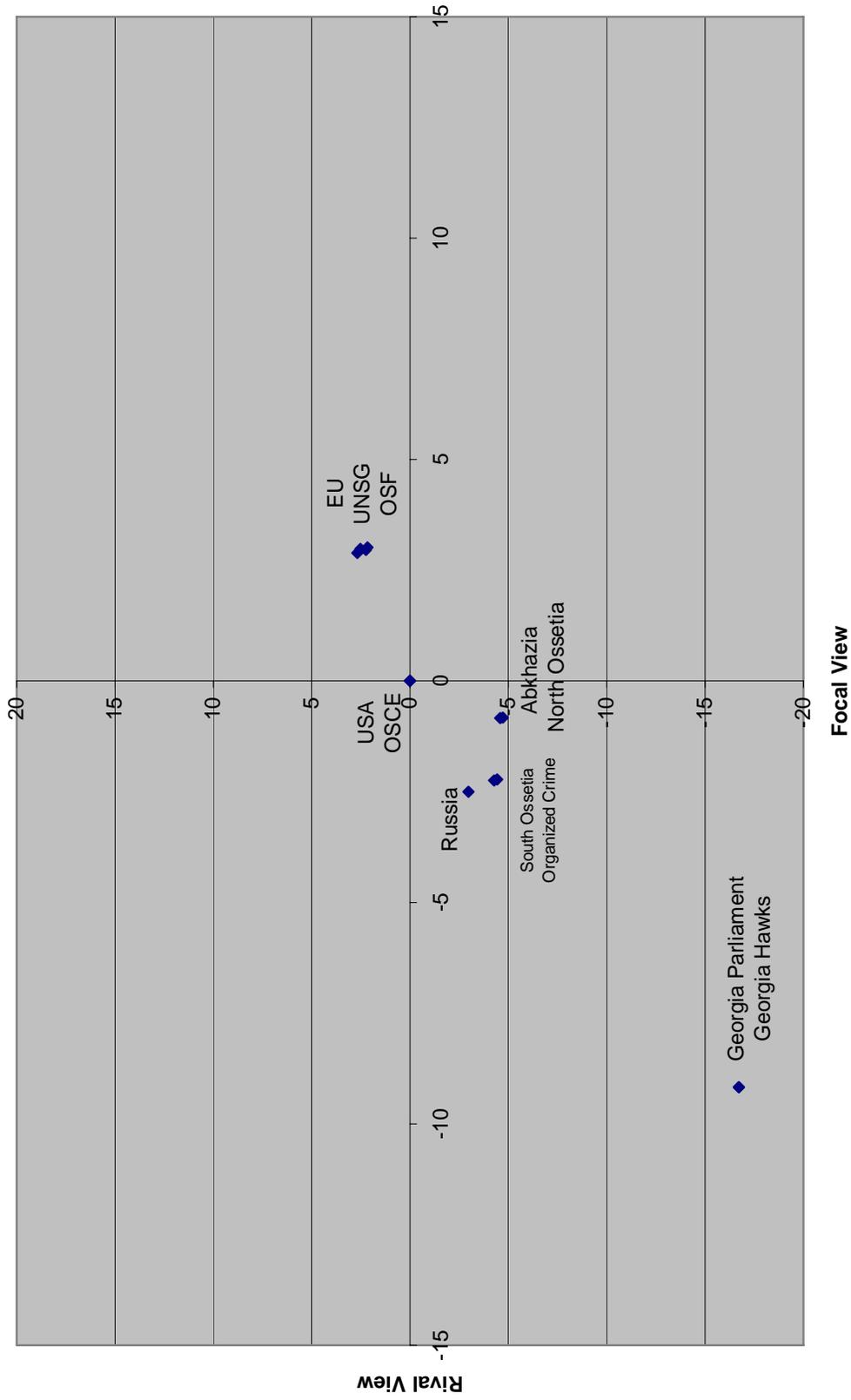
Figure 6-4-3-4 Expected Utility Assesments: Georgian Hawks' Perceptions
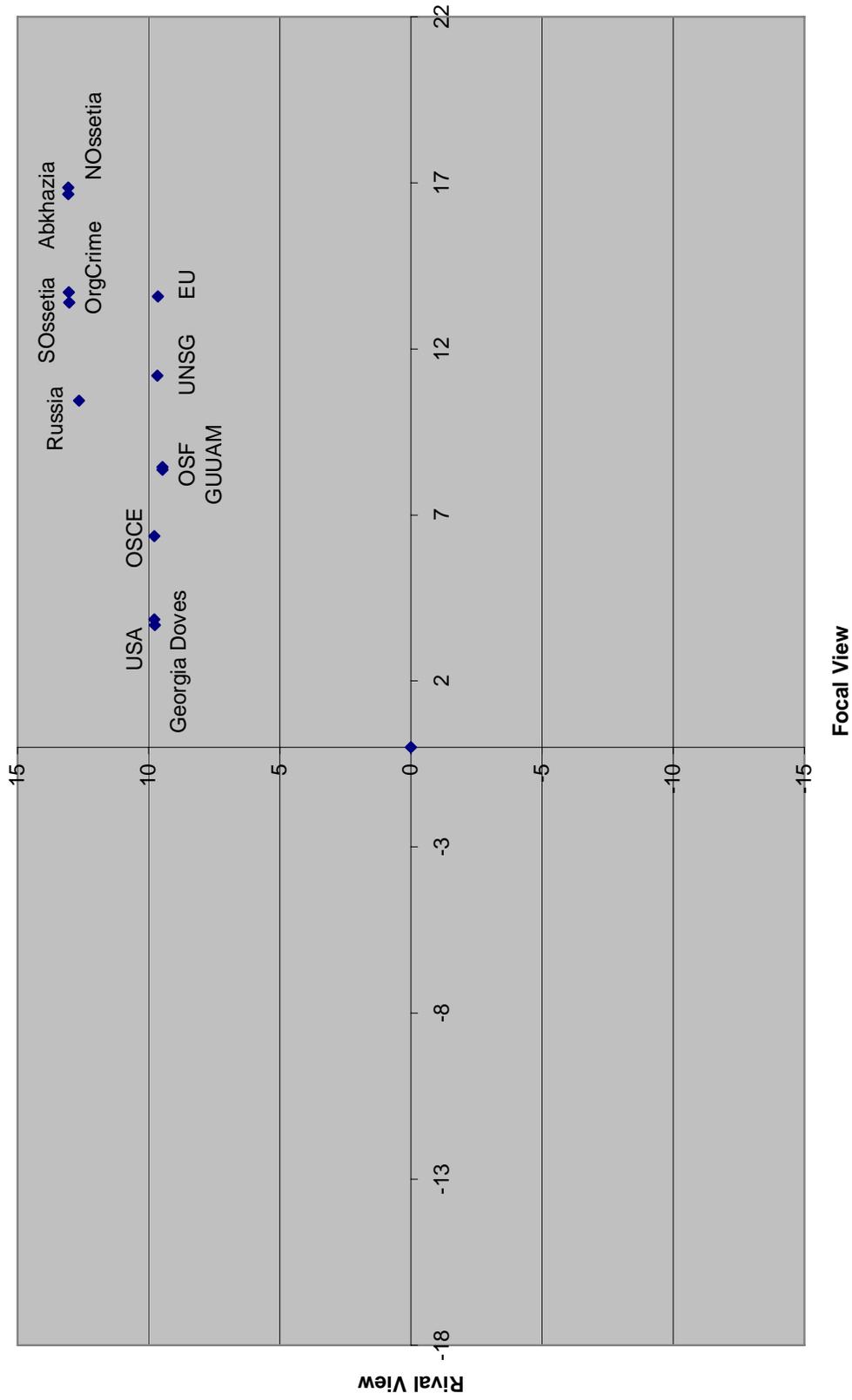
Figure 6-4-3-5 Expected Utility Assesments: Georgian Parliament's Perceptions
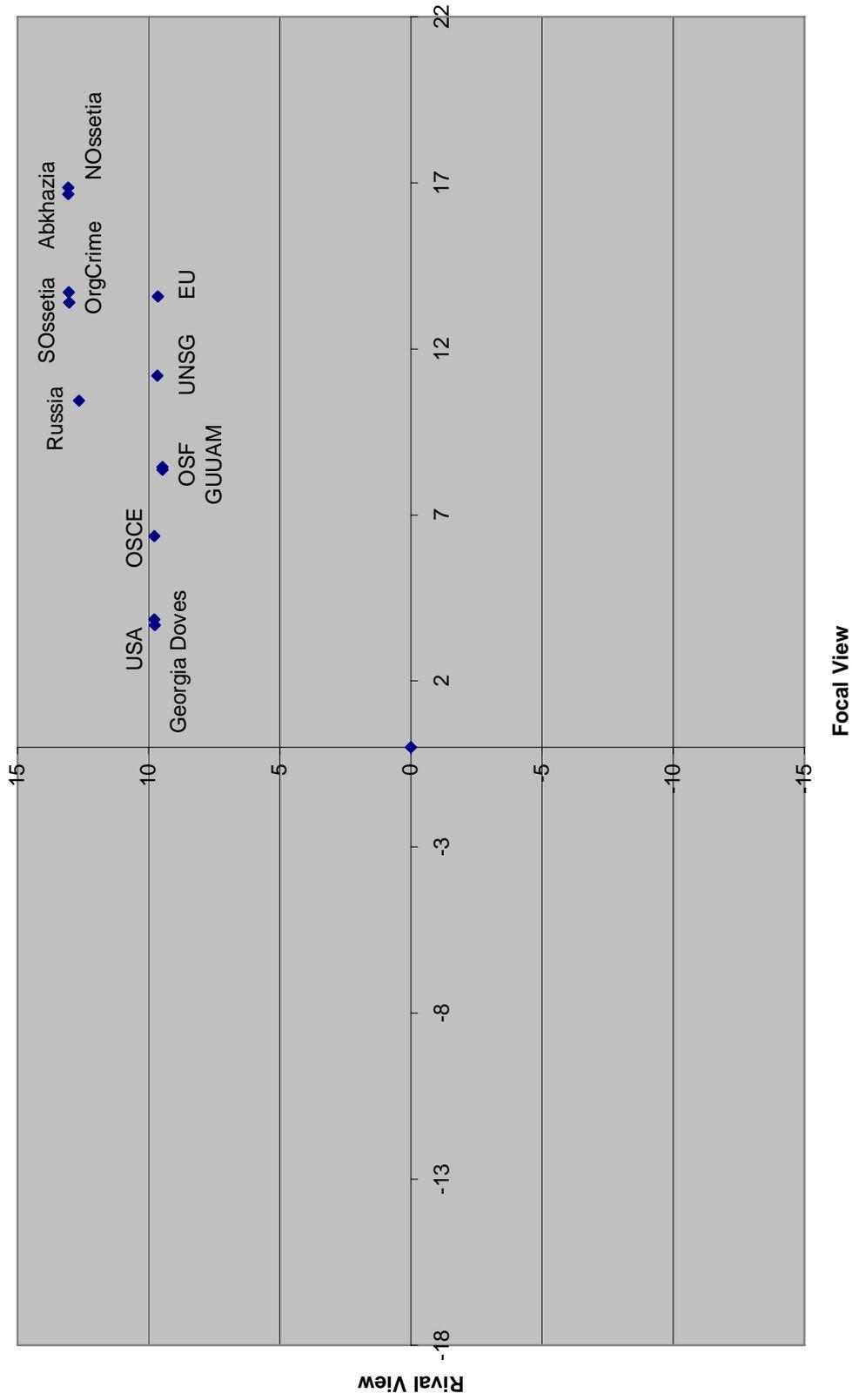
Figure 6-4-3-6 Expected Utility Assesments: EU's Perceptions

246
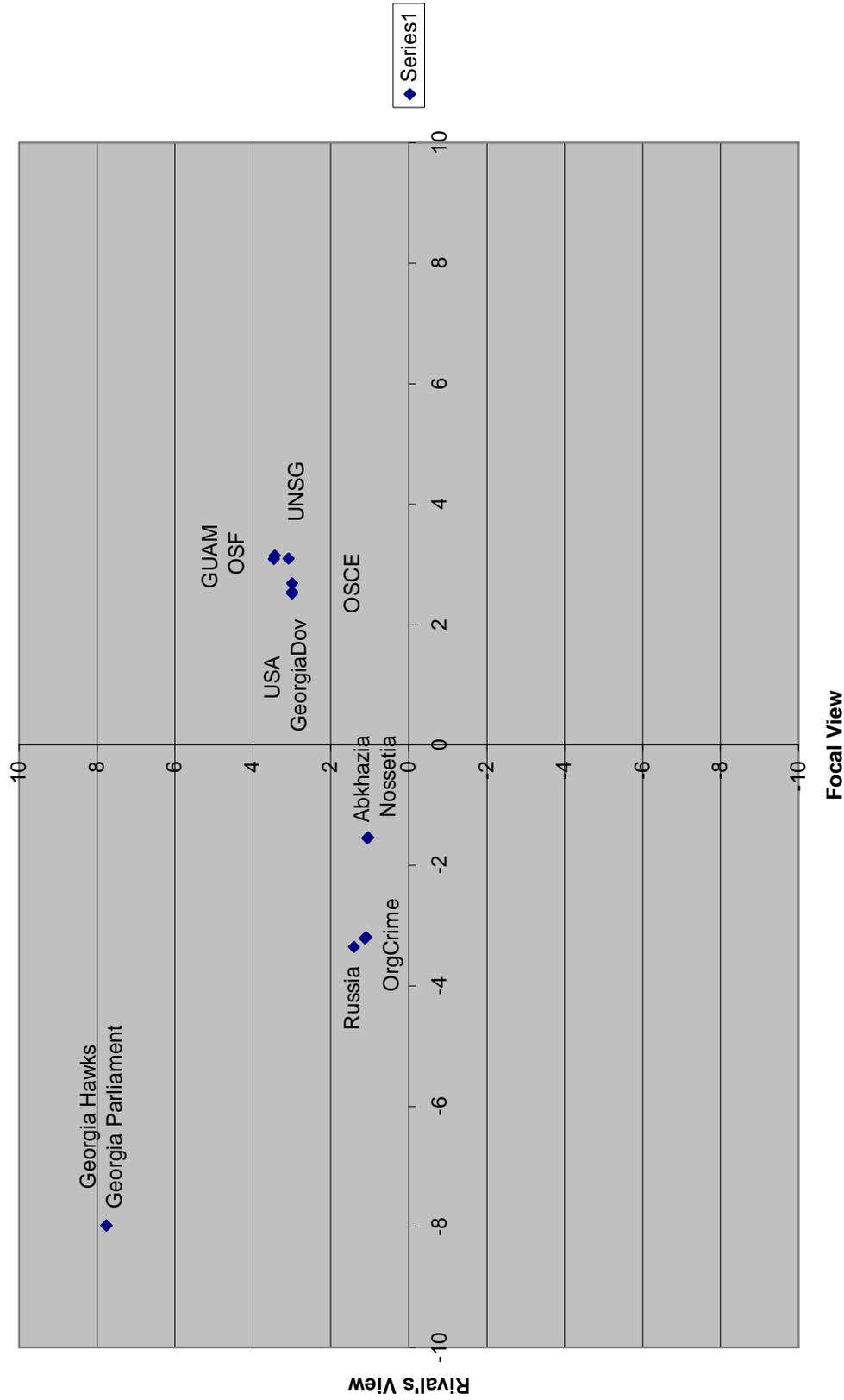
Figure 6-4-3-7 Expected Utility Assesments: US' Perceptions

247
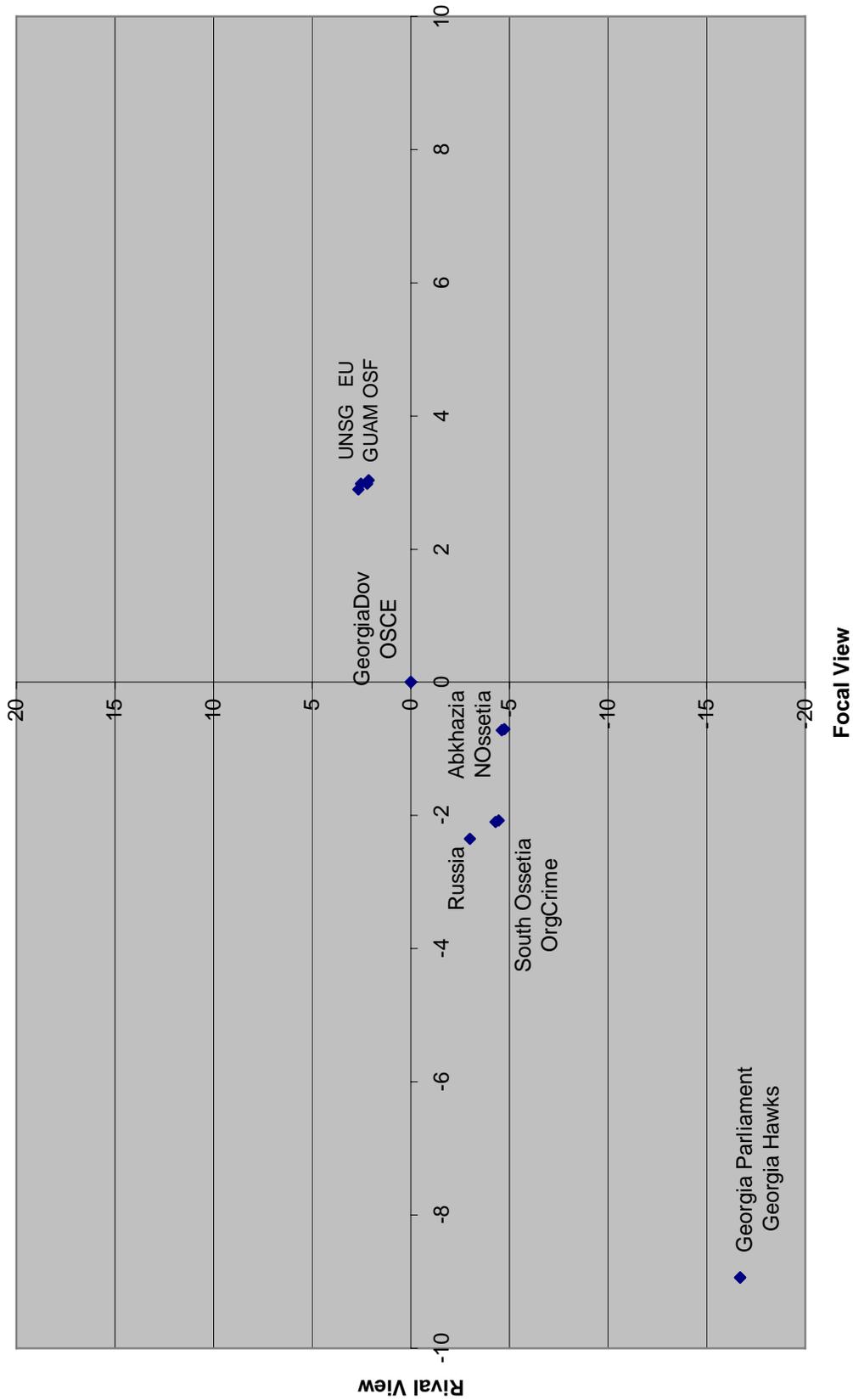
CHAPTER 7
CONCLUSIONS AND POLICY IMPLICATIONS

Plan of the Chapter

This chapter presents a summary of the dissertation's conclusions in three parts. Part one begins with a discussion of the results from the three empirical analysis chapters. Also, the paths of strategic action based on the expected utility analysis for the EU and US will be discussed in terms of competition, confrontation, cooperation and negotiation. Part two presents more general policy recommendations targeted at European and American foreign policy related to energy security. Part three presents ideas for future research.

7.1 The Three Conflicts and European and US Foreign Policy

This dissertation analyzed four major questions: 1. What effects will conflicts in Iran, Azerbaijan and Georgia have on global energy security? 2. What are the forecasts as to the future of the three conflicts in these countries? 3. What are the available foreign policy options for the EU and US to prevent these conflicts from escalating and threatening global energy security? 4. How do these conflicts affect the great power rivalry in the Eurasia region? I will recapitulate the answers to these questions.

The enormous importance of Iranian oil and gas production for the global energy markets is an indisputable fact. As one of the top global producers and the possessor of the second-largest oil and gas reserves in the world, a political turmoil in Iran can disrupt the energy production, supply and transit and might lead Iran to

initiate embargos on certain adversaries' economies. Such events have the potential to double oil and gas prices in the short run. The effects of such price shocks on global and national economies will most likely be exceptionally harmful and can lead to long-term recession and high inflation.

The EUM's forecast of the future of the Iranian nuclear program is fairly clear and stable: Iran is not likely to give in to the international pressures about its uranium enrichment program.[1]

There might be several reasons for Iran's persistence. One of them, which will be discussed further below, is the support of Russia and China for Iran, based on economic reasons, which makes an international effort to prevent the nuclear proliferation of Iran by the UN Security Council virtually impossible. Another reason lies in the position of the George W. Bush administration in American domestic politics. The current government faces low levels of support, for public opinion turned against the Iraq war. The 2006 Congressional elections also constitute a factor that will probably lead the Republican Congress not to support spending for yet another foreign military invasion. Also, Iran will be considering the fact that the American military is spread thin due to its global involvement. Allocating a substantial amount of force against Iran looks difficult at this point in time.

The analysis in this study also suggests that the "conflict" perception is fairly low at the end of the bargaining. The dominant perception is one of a stalemate. This means that in the short term, no diplomatic or military crisis is expected. Many

---

[1] In fact, the Iranian Supreme Leader Khamanei is coded as the veto player in the analysis who did not change his pro-uranium enrichment position during all rounds of the bargaining. Therefore, the conclusion of the expected utility analysis was certain all along that Iran is very likely to continue enriching uranium.

important actors in the bargaining, such as the EU, US, IAEA and Israel, are "unsatisfied" with the resolution of the issue. However, their joint perceptions of the Iranian political leaders can be summarized as a standoff. A review of the Iranian leaders' joint perceptions shows that the same holds true vice versa. These results do not indicate the emergence of a "hot" conflict about this issue in the near future.

What are the foreign policy options available to the EU and US to resolve the Iranian conflict? Competition and confrontation with the rival does not seem to be an option that will bring success, because Russia's and China's huge support for Iran tips the balance of power in favor for Iran. The Iranian leaders play a very clever game: By being one of the largest energy exporters to China[2] and nuclear technology importers from Russia, they create a situation of interdependence in which China and Russia will continue to support Iran. The EUM also concludes that challenging the rivals (i.e. Iran, Russia and China) is more costly for the EU and US than maintaining the stalemate position.

This gridlock situation leaves the EU and US foreign policy makers with only two viable options: cooperation and negotiation. Regarding the possibility of cooperation, the simulation has shown that if the EU and US policies diverge on the Iranian nuclear program issue, like in the 2003 war on Iraq, it will be much less likely for them to prevent the nuclear proliferation of Iran. Again, the tremendous impact of Russia's and China's capabilities on the bargaining plays an important role. To counterbalance this influence, the EU and US must act together. That is, a strengthened common stance should be pursued against Iran. In fact, this analysis was produced in December 2005, and the conclusions were drawn in January 2006, before

---

[2] About 14 percent of Chinese oil imports are from Iran.

the Iranians rejected the first proposals from the EU3. The events of May and June 2006 support the conclusions. The EU and US drew support from Russia and China for a peaceful resolution of the issue and mobilized the UN Security Council. In mid-June 2006, the UN Security Council Nations plus Germany made another offer to Iran to stop their uranium enrichment in return for guaranteeing the availability of nuclear fuel for their reactors, along with various trade advantages and security guarantees (BBC News). Iran has yet to respond to the proposal, presumably in mid-August.

Also, this kind of move was predicted by the analysis in chapter 4, where opportunities were discussed that might not look obvious to the policy makers. An interesting point in the analysis of the EU, US and IAEA's perceptions is that they all see China, India, Pakistan and Saudi Arabia as flexible enough to still be convinced. This means that the US, EU3 and the IAEA still perceive these three countries as being persuadable to support an international response against Iran.

As stated in chapter 4, Iran is trying to achieve more international recognition and bargaining power by making the EU, US and international community believe that it has advanced its nuclear program. As our forecast graph over time suggests, the extension of the negotiations is only beneficial for Iran's purposes (Figure 4-5-5).

Chapter 5 analyzed the possible conflict escalation in the Nagorno-Karabakh region of Azerbaijan that can threaten the physical security of the Baku-Tbilisi-Ceyhan pipeline. The American and European efforts to build the pipeline and Russian counter- efforts to prevent its construction provided the first example of the redux of the Great Game in the region (Kleveman 2003). The Western governments and oil companies strongly supported the construction of the BTC pipeline for one

major reason: It is the first step in realizing further projects that will provide a

diversity of energy supply from the Caspian Basin countries. Specifically, this

pipeline provides a basic infrastructure for even more oil and gas transit from

Kazakhstan and Turkmenistan to Europe and the US via Turkey.

The results of the analysis are not as confident as in the Iranian case. Although

the model concluded that a pro-Azeri position is likely to win the bargaining, a

careful analysis of the dynamics of the model suggests a solution that respects

Azerbaijan's territorial integrity; at the same time, a support of self-determination

rights for Armenians appears to be highly plausible. This is the position stated by the

US, France, the EU and UN, and more support can be drawn for it from international

circles.

The good news for the peoples of the region and the energy security of the

Western economies is that the interacted conflict perception is very low, about 8

percent of all joint perceptions. Therefore, one can infer that a regional war is

unlikely to appear in the near future. The most important position shift in the

bargaining was made by the Republic of Armenia, which came closer to the

resolutions suggested by Azerbaijan, Europe and the US. The reason for this could be

the government's determination to end the long-term economic isolation in the

region. Hence, policies of "carrots" (i.e. economic cooperation, aid and international

inclusion) towards Armenia are more likely to work.

The biggest obstacle to a peaceful resolution of the issue can result from the

Russia-Iran cooperation against the Azerbaijan-US-EU-Turkey stance. In the

simulation, despite its relative weakness to influence the overall resolution to the

issue, Russia was able to draw support for its status quo position from regional powers, like Iran and smaller but important actors, such as the opposition in Armenia and the de facto Armenian government of Nagorno-Karabakh. Especially the Russian perceptions denote that there is a risky situation in the region regarding the conflict. Russia perceives itself at odds with all other actors but the status quo powers that share the same policy position. The Russian perceptions suggest that the positions of the EU, the EU Council, US and Azerbaijan are the farthest from its preferred position in the Euclidian distance (Figure 5-4-4-3-11). That is why I suspect that Russia is likely to increase pressure on the Republic of Armenia not to reach an agreement with Azerbaijan and might be able to stir the de facto peace in the region by mobilizing nationalist Armenians in Nagorno-Karabakh.

What does this analysis tell us about available American and European foreign policy options? First of all, a limited conflict between two groups, i.e. between pro-Russian and pro-Western alliances, is likely to continue. The EU and US should maintain their unified stance against the Russian influence in the region in order to keep the Azeri and Caspian energy resource production and transit alive. The foreign policy option that is most likely to work is to support the economic and political development of Azerbaijan and to prevent military conflict in the region by deploying peace-keeping forces in Nagorno-Karabakh until the issue is resolved. The political and economic stability of Azerbaijan is essential, and foreign economic aid and political influence is necessary to let Azerbaijan grow as a stable, friendly government in this important region. Building military alliances and improving

economic cooperation[3] with Azerbaijan look like feasible options. Otherwise, a weak Azerbaijan can easily be stirred or even absorbed by Russia, like in 1920.

Lastly, the EU and US should offer similar help to Armenia in return for its support of a peaceful resolution to the conflict. Such support can break the dependency of Armenia on Russia and lead to a workable resolution to the conflict.

Chapter 6 analyzed the South Ossetia conflict and its importance for the transit of energy from the Caspian region to Europe and the US via the Mediterranean. Despite its net energy importer status, the political stability of Georgia is of greatest importance for its position as a pro-Western transit energy country.

The main forecast from the expected utility analysis is that the Russian influence in the region is so enormous that the continuation of the status quo is the most likely option. With the current dynamics in place, a resolution to the issue is not likely to occur in the short run. The status quo is favored by the Russians, who effectively control South Ossetia. The US' influence will probably not be high enough to persuade Russia to change its position. Therefore, the US will continue the bargaining to muster support for a moderate resolution to the issue, which entails great autonomy for South Ossetia. The simulations show that the US is likely to be successful in persuading the Georgian government to shift to a more moderate position.

According to the analysis, the EU might get credible proposals from the breakaway regions of South Ossetia and Abkhazia to change its stance in favor of the

---

[3] Especially via Turkey, that has already been giving such assistance to Azerbaijan since the last 15 years.

254

independence of these regions. Although in the bargaining simulation, the offers are not convincing enough to change the EU's position, they appear to be "credible" in the simulation's terms. This suggests that if the dynamics of the conflict change, the EU will be able to somehow increase its support for the South Ossetian position. Regarding such a change one can speculate that after the incidents in the winter of 2006, the EU understands that it is completely energy-dependent on Russia. This can lead the EU to be more pro-Russian in the region.

This scenario entails a real danger for the peace, security and specifically energy security in the region. If the EU deviates from its current position towards South Ossetia, another transatlantic divide can cause serious damages to the energy security of Western economies. More specifically, the EU might be better off not to defect to the US and other regional powers like Turkey in this rivalry against the Russian influence.

Similar to our discussion about Azerbaijan, I suggest that the EU and US should support Georgia's democratization and economic growth wholeheartedly. A domestically stronger Georgia backed by the EU, US and Turkey is less likely to lose South Ossetia to Russia or to become involved in an armed conflict with the South Ossetian paramilitary forces. Especially initiatives like civil society organizations' promotion of Georgian democratization processes is noteworthy and should be encouraged by the EU and US. The possibility of a Georgian membership in NATO and the EU looks remote but should be considered as an important opportunity.

7.2 General Conclusions and Policy Recommendations

In this part, I attempt to make more general conclusions based on the research and draw some further foreign policy recommendations for the EU and US.

I conclude - as geologists, engineers, economists and energy security researchers suggest - that the threats to energy security in the near future are likely to arise *only* from political instabilities. Related to this is the fact that the Caspian energy resources appear to be one of the few "hopes" to diversify oil and gas supply for the EU and US, although it cannot replace the Middle Eastern oil due to the latter's cheapness and vast reserves.

The results of this project confirm the hypothesis from various literatures that the EU and US should pursue proactive foreign policies to prevent regional conflicts that might disrupt the production and transportation of Caspian energy. If the EU and US do not pursue such foreign policies, the region can easily slide into turmoil, which will only deepen the existing dependency of Western economies on Middle Eastern energy.

Third, a new type of "Great Game" is likely to develop further in the region. That is, a great power struggle for the control of energy resources in the Eurasia region should be expected. In this struggle, the most important rivalries will be between two groups of countries: Russia, China and Iran (and maybe India in the future) will use political tools to control the region's political economic developments against the penetration of the US, EU and Turkey. These conflicts are likely to occur among China, Russia and United States and their allies. This is what I mean by the "emergence of tripolarity" in the title of this study.

This struggle for the control of politics in the region is likely to take the shape of a limited form of the Cold War. I use the noun *limited* here for two reasons. First, the intensity of the conflict is less likely to be as high as during the Cold War.[4] Second, the scope of the "New Great Game" is narrower than that of the Cold War. That is, the current struggle in Eurasia is mainly motivated by economic gains, rather than physical security, ideological rivalry and the existential concerns of the Cold War.

But one characteristic of the Cold War is still relevant and will shape this struggle, namely that many of the players are also nuclear powers, i.e. the US, Russia, EU (France and UK), China, and India. There is a growing suspicion that Iran wants to 'go nuclear', which might trigger the development of a nuclear program for military purposes in Turkey, as well. This characteristic, in a way, is the insurance for the prevention of military confrontation due to obvious reasons, such as Mutually Assured Destruction.

As it appears almost impossible to deter Russia and China with military means, the conclusion suggests that the EU and US would be better off using international economic relations, the promotion of democratization and economic growth as foreign policy tools in this struggle.

Some signs of these efforts already exist. For the last half decade, the EU has been trying to convince Russia to reach an EU-Russian energy cooperation agreement. This agreement would guarantee a stable supply of energy for Europe, and an assured access to European technology and investments for Russia. However, as

---

[4] Proxy wars and possibilities of military confrontation between great powers will be less likely than they were during the Cold War.

the Russian administration aimed to use energy as leverage in its foreign policies in the bargaining simulation, the EU did not succeed in convincing Russia.

With the goal to support its fast-growing economy, China is the second challenging player in the quest for energy security for the EU and US. The Chinese foreign and economic policies to guarantee energy supply to its market are global efforts that are not confined to Eurasia. In a recent summit in June 2006, the top EU policy makers worried about China's "aggressive courting" of oil-producing African nations for energy (Islam 2006). One way to deal with China's support for Iran could be using trade quotas and negotiations at the WTO. As much as the Western economies enjoy cheap imports from China, the Chinese economy also depends on those exports. Using international trade as a mechanism of influence can be one way of dealing with China's aggressive energy security policies.

Lastly, the EU and US should support the nascent democracies and economies of the Caspian basin and the Caucasus states. This is one way to make these nations more stable to withstand domestic and foreign meddling.

7.3. Future Research

This dissertation attempted to answer an important question: How will three conflicts in the Eurasia region develop and what are the foreign policy options that are available for the EU and US to provide energy security to their markets? Due to pragmatic constraints this dissertation did not include some other important conflicts in the region that can threaten global energy security. That is, funding availability and time concerns have limited the scope of the study. The Caspian Sea legal regime

issue, the ethnic conflict in Southeastern Turkey (i.e. the conflict with the PKK), and the future of Northern Iraq are other relevant issues that can be analyzed in an extended version of this study.

Also, in future research more area experts will be asked to code additional data at different times for the three issues at hand. This will increase the reliability of the results and provide a larger range of outcomes that are available to the actors.

Finally, I plan to conduct statistical tests of the results of the formal analysis for sensitivity analysis purposes. This way, an advanced research piece that combines case studies, area expertise, mathematical modeling and statistical tests of the modeling can be developed.

APPENDICES

APPENDIX 1: OPERATIONALIZATION OF THE VARIABLES

(INFORMATION DOCUMENT ABOUT THE MODEL THAT WAS RECEIVED BY THE CODERS ALONG WITH QUESTIONNAIRES)

MODEL, ISSUE CONTINUUM AND AN EXAMPLE

The model I use to analyze various issues related to the energy security in the Eurasia region was developed by Bruce Bueno de Mesquita (1999, 2002 and 2003). This model, sometimes also referred to as the Expected Utility Model (EUM), might be described as a dynamic median voter model with coercion. It is an example of applied modeling designed for practical application.

The expected utility model makes calculations about interactions of the <u>actors</u> involved in a bargaining situation. The final output of the model predicts whether there is a solution to the bargaining; and if there is, it forecasts what the solution will look like.

Each actor in a bargaining is associated with three variables: the actor's <u>resources</u>, <u>policy position</u> and the <u>salience</u> that the actor associates with the issue. The data for these three variables are collected from area experts who have an outstanding knowledge of the issue at hand. **Therefore the model and its success completely depend on the area experts' knowledge of the issues.**

One assumption of this model is very important: the issues are defined as **unidimensional.** Let me further clarify the model, issue continuum and data collection by providing an example from a study on the Kosovo crisis of 1998-1999.

1.1. An Example of What the Issue Continuum and Data Look Like

The issue investigated here centers on autonomy for Kosovo. The main question asked is: "What is the attitude of stakeholders toward autonomy in Kosovo and the composition of troops deployed after the bombing stops?" Running the data collected from area experts, the forecasting model predicts the result of this bargaining, that is, the future of Kosovo's autonomy.

The data was collected during the height of the air war in Kosovo by Bruce Bueno de Mesquita (1999). The issues of autonomy and troop composition are one and the same; those stakeholders that prefer more autonomy necessarily prefer foreign troops, NATO in particular. Those that prefer less autonomy prefer local troops, or unarmed foreign troops.

Let me explain to you how the study is conducted, step by step:

Step 1:

First, the researcher carefully defines a position scale. Major positions that actors can take on Kosovo's autonomy issue were defined as follows:

Position Scale:

0 = No self-rule;

50 = Limited autonomy;

80 = Autonomy for Kosovo;

100 = Full Independence for Kosovo

Step 2:

After defining the issue continuum, the researcher asks the area expert to review it.
Of course, if necessary, the area expert can change actors' position scale
according to their expertise.

For example, in the Kosovo study, the area expert defined the actors and their

positions on the issue continuum as such:

Bulatovic (Montenegro)
US Congress (Anti-War Faction)
Democratic Opposition
Serbian Extremists
Milosevic
Serbians in Kosovo
Seselj (Radical Party)
Yugoslav Army
Orthodox Church

Serbians in Bosnia (35)

Russia (42)

UN Security Council
UN Secretary General

Djukanovic (Montenegro) (55)

Greece

Berisha (Albania)
Albanian Gov.
US Congress (Pro-war Faction)
US Executive
France, Germany, Macedonia, UK
NATO
Albanian Diaspora
Kosovo Liberation Army
Rugova (LDK)
Bulgaria, Romania, Hungary, Croatia, Bosnia

| 0 | | 50 | | 80 | 100 |

Figure 1: Policy Positions (0-100)

You can observe how the autonomy issue and the policy positions of relevant actors are defined in Figure 1. Milosevic, Serbian extremists, the Yugoslav Army, the Orthodox Church, US Congress anti-war faction and some other actors are completely against the autonomy for Kosovo; so, their policy position score is 0. At the other extreme of the issue continuum, the Kosovo Liberation Army, the Albanian government, US government, NATO, France, Germany, UK and the other actors favor the full independence of Kosovo: thus, their position score is 100. The UN Security Council and Secretary General present a median position, meaning limited autonomy with a score of 50. Russia is close to the UN position, yet closer to the Serbian stance than the rest of the actors with a position value of 42.

Step 3:

After the scale is reviewed, the experts are asked to fill in values for the three variables for each actor (i.e. resource, position, and salience).

Actual data from Professor Bueno de Mesquita's Kosovo study is illustrative here. The area experts coded the resource, position and salience data for the 33 actor involved in the Kosovo crisis of 1998-1999 as illustrated in Table 1.

Table 1. Data for the Kosovo Crisis, 1999.

Actor	Resource	Position	Salience
Berisha (Albania)	1	100	70
Albanian Government	20	100	100
Bulatovic (Montenegro)	1	0	70
Djukanovic (Montenegro)	50	55	100
US Congress - Pro-War Faction	20	100	50
US Congress - Anti-War Faction	25	0	50
US Executive/Government	300	100	90
France	75	100	90
Germany	75	100	90
Italy	75	100	90
Macedonia	100	100	100
NATO	100	100	100
Russia	100	42	80
UK	80	100	90
UN Security Council	5	50	90
UN Secretary General	10	50	90
Democratic Opposition	1	0	100
Serbian Extremists	40	0	100
Milosevic	200	0	100
Serbians in Kosovo	5	0	100

Seselj (Radical Party)	20	0	100
Yugoslav Army	50	0	100
Orthodox Church	10	0	100
Albanian Diaspora	5	100	100
Kosovo Liberation Army	30	100	100
Rugova (LDK)	1	100	100
Greece	40	80	90
Bulgaria	15	100	95
Romania	10	100	85
Hungary	15	100	85
Croatia	10	100	85
Serbians in Bosnia	10	35	90
Federated Bosnia	10	100	80

Interestingly, although most of the powerful actors were in favor of Kosovan independence at the height of the air bombardment, the forecasting software's prediction of the bargaining about Kosovo's autonomy was the "centrist position", after three rounds of bargaining. That is, many powerful actors who started the negotiations with a policy position of 100 (i.e. full independence), such as USA, UK, Germany, France etc, ended up shifting to the United Nations' centrist position of limited autonomy. Of course, the final resolution of the issue is expected to be achieved in the next years and we will have another opportunity to review the predictive power of the model once again.

2. Definitions of Variables

In this section, I will give you the precise operational definitions of the three variables as defined in Bueno de Mesquita (1999).[1] Clarity of these definitions is extremely important for the development of the data and sound forecasts. If there is anything that needs further clarification, please don't hesitate to contact me; I would like to call you and clarify such issues.

Variable 1: Stated Position

This variable represents the current negotiating position on the issue for each stakeholder. The information regarding each stakeholder's position represents the best available estimate of their current bargaining stance. **This position is <u>not</u> the outcome the stakeholder expects or is prepared to accept, but is the stakeholder's current negotiating stance.**

When the position has not been stated by actors, it is best thought of as the answer to the following mind experiment: <u>If the stakeholder were asked to write down his or her current position, without knowing the values being written down by other stakeholders, what would he or she write down as the stated position on the issue continuum?</u>

---

[1] **IMPORTANT COPYRIGHT NOTICE:** Bruce Bueno de Mesquita who holds the copyright of this model and the educational website for it (bdm.cqpress.com) has verbally given a permission to use the instructions at the website for the preparation of this document. Some of the information and text after this point –specifically the variables part- are directly taken by Bueno de Mesquita's (1999) educational website. Some are rephrased by me. Therefore the reader can consider all instructions and examples (i.e. Kosovo example) in this document in quotation (i.e. " ") from the author's website for all copyright and academic integrity purposes.

It is important that the numerical values assigned to different positions (and they can range between any values) reflect the relative distance or proximity of the different solutions to one another.

Variable 2: Salience

Salience refers to how important the issue is to the actor. Salience is <u>not</u> a measure of how hard someone will try to accomplish their goal, nor is it the percentage of time or effort they are prepared to put into an issue. Rather, as the definition above tries to make clear, **salience is a measure of their preparedness to focus on the issue when it comes up, even if it means putting aside some other issue.** For this reason, few actors should be expected to have a salience of 100 on an issue. Of course, scores close to 100 may be more common. By the same token, no actor can be a player in a decision and have a salience of zero for the issue in question. Therefore, salience must fall between 1 and 100. Examples of what salience scores mean are as follows:

90-100: This is my most important issue. I would drop whatever I am doing and turn to this issue whenever asked.

70-80: This issue is very important to me. It is certainly one of my most important issues. I would try very hard to reschedule to handle this issue when it arises.

50-60: This is one of several important issues. Others are more important. I would have to drop this if one of those others arose, but otherwise I will try to focus on this issue.

30-40: This is an issue I care about, but it is not that important to me. I have many more important issues to deal with and so generally would not drop what I am doing to deal with this and generally would focus on something else.

10-20: This is a minor issue to me. I rarely pay attention or make much effort.

Less than 10: I really don't care about this issue.

Variable 3: Resources

A player's potential influence on the issue depends on how much power and resources this actor can allow on the issue concerned. For instance, if the actors are nation states, the power or potential influence of the country on the issue might not include all of the resources the country has available. **It is rather the pool of resources that a country can allocate to the specific issue.**

100: The most powerful stakeholder on this issue. There can be more than one group at this score or at any other score. The value 100 is illustrative and is convenient to use, but the Policy Forecaster does not restrict resource estimates to be between 0 and 100, the values can be larger than 100 (but should not be less than zero). **So when you code, please assign 100 to the most powerful actor(s) on an issue, then, all other stakeholders' resource scores can be coded relative to the most powerful actor (in numeric terms, relative to 100).**

All other values:

A stakeholder's value must be positive and must be evaluated relative to 100 (or the maximum score assigned) and relative to the values other stakeholders. So, two stakeholders with 40 and 60 would equal the one stakeholder at 100 in a head to head contest with no one else involved if everyone tried as hard as they could. The resource scores should not be thought of as percentages. A decision maker with a score of 100 does not have 100 percent of the resources and may, in fact, have only a small percentage of the total. The total, of course, is the sum of all of the resources across all of the groups or decision makers.

An Important Point: Veto Power and Outcomes

It is often useful to distinguish between an actor's resources and veto power. Though the model does not make direct use of veto power information, one can. An actor has veto power if his or her failure to accept a proposed issue resolution means there is no agreement. For example, the Irish Republican Army is not one of the most powerful actors in the data sets on Northern Ireland. On most issues it has neither many resources nor a veto. On the issue of disarming paramilitary groups in Northern Ireland, however, the IRA, as a well-armed paramilitary group, can veto the decommissioning of paramilitary actors. If they walk away from the table on this issue, there is no agreement even if all others agree. **So, if you think there is a veto player in the issues you are asked to comment on, please let me know. It is very**

important to know about the veto players in order to achieve accurate

predictions.

APPENDIX 2
QUESTIONNAIRES

Questionnaire 1

Issue 1- Iran

Introduction:

This questionnaire includes two parts. Part I presents a background of the crisis in focus. In part II, 3-steps instructions for coding is explained. In order to facilitate your coding, I have already completed substantial parts of steps 1 and 2. Please review step 1 and step 2. If you think steps 1 and 2 are ready to go, you can do only step 3 (i.e. coding of the three variables.

1. Background: Iran's Nuclear Quest

In August 2002, Iranian exiles announced Iran has a secret nuclear program. When the existence of sites was confirmed by satellite photographs, Iran announced its nuclear program has peaceful aims and would allow IAEA inspections. The United States insists that Iran's nuclear program ultimately aims to produce nuclear weapons. In October 2003, French, German and UK [the EU (3)] foreign ministers traveled to Iran. The ministers asked Iran to stop enriching uranium; suggested Iran sign an additional protocol to the NPT; and provide full cooperation with the IAEA. The EU (3) offered economic concessions to Iran if these conditions were met. In August 2005, Iran rejected the EU (3) proposal and talks were stopped. As of early December 2005, the talks between the EU (3) and Iran have not resumed and the latter is reportedly continuing its nuclear program.

Various Iranian and international actors are involved in this issue with diverse policy positions: The IAEA declared that real aims of the Iranian nuclear program are ambiguous. The United States administration has repeatedly suggested referring the issue to the UN Security Council and initiating economic sanctions to Iran. Israel seems to agree with the US position. Russia and China have extensive cooperation and trade with Iran which eliminates a UNSC decision against this nation. Russia declared its determination to continue transferring nuclear technology to Iran, while it also proposed "returning the spent nuclear fuel to Russia for reprocessing and storage" so that it cannot be used to produce nuclear weapons (BBC News). Iranian views on the issue also seem to differ. The so-called 'hard-liner' President Ahmedinejad and his administration seem to be more determined to continue nation's nuclear program than their predecessors, i.e. President Khatemi and his team. Some other regional actors, such as Gulf Cooperation Council, also stated that a nuclear Iran could negatively affect the precarious stability in the region.

Iran's vast oil and gas resources are extremely important for the security of the energy supply to the EU as well as to the world. Iran was the fourth largest producer of oil and sixth natural gas in the world last year. Using force or imposing sanctions can seriously threaten global oil and gas prices. Being aware of this, an Iranian cleric recently threatened to use the oil weapon should the UNSC sanction Iraq.

2. Coding and Instructions

Issue

What are the attitudes of stakeholders toward Iran's uranium enrichment?

Step 1.

The following scale, from no uranium enrichment (0) to enriching weapon grade uranium (100) represents the range of possible outcomes for the Iranian nuclear question.

I have defined the following policy positions and the values associated with them as a guideline. The position scale might not be complete. It may be subject to change in accordance with your expertise. Please feel free to change the nodes, add/subtract more positions.

Policy Position Scale

Position	What it actually means
0	No uranium enrichment at all; strict IAEA inspections. (US and Israel's positions)
40	Stop enrichment, allow IAEA control; in return political and economic benefits offered to Iran (EU Position)
60	Continue negotiations with the EU, if there is a deal, stop enrichment (Khatemi position)
70	Continue transferring of nuclear technology to Iran but uranium enrichment made in Russia (the stated Russian position)

85	Suspension of nuclear activity for a limited time by Iran
100	Continue developing nuclear technology that can be used to produce nuclear weapons

Step 2

Assuming that the dialogue and negotiations between Iran and the international community will continue in the near future, please identify all the relevant actors (i.e. this can include governments, parties, international organizations, individuals, non-governmental or organized crime groups – inside and outside of Iran) and mark them in the left column of the table below.

(To facilitate the processes, I have included the following actors who might have a stake in the bargaining processes. **Please feel free to add and subtract actors.** For example if any actor below have no relevance, please simply delete it, or leave data cells blank for the actor.)

Step 3

Using the policy scale for Iranian uranium enrichment issue that you reviewed and updated, please assign each actor:

1. A number for group **resources** between **1 and 100** (You can assign 100 for the most powerful actor in this bargaining and rate other actors relative to the most powerful and each other. (Please note there may be more than one actor with resources equal to 100);

2. A number to indicate each stakeholder's **policy position** from **0 to 100** (Please note there maybe more than one actor with the same policy position value);

3. A number to each stakeholder's **salience** for the issue, between **1 and 100** (Please note there maybe more than one actor with the same salience value).

Actor	Resource (1-100)	Position (0-100)	Salience (1-100)
EU (3) (Represented by France, Germany and UK)			
EU Council (High Representative Havier Solana)			
Russia			
United States			
Israel			
China			
India			
Pakistan			
Turkey			
Saudi Arabia and the Gulf Cooperation Council			
IAEA			
UN Secretary General			

Iranian Government (President Ahmadinejad and MFA Mottaki)			
Supreme Leader Ali Khamanei			
Ali Larijani (Secretary of the Supreme Council of National Security of Iran, Iranian Negotiator)			
Iranian Parliament			
Iranian Opposition, Moderates (Khatemi)			
Iranian Opposition Pragmatists (Rafsanjani)			
Guardian Council (Mullahs)			
Revolutionary Guard of Iran			

Questionnaire 2

Issue 2 – Nagorno-Karabakh

Introduction:

This questionnaire includes two parts. Part I presents a background of the crisis in focus. In part II, 3-steps instructions for coding is explained. In order to facilitate your coding, I have already completed substantial parts of steps 1 and 2. Please review step 1 and step 2. If you think steps 1 and 2 are ready to go, you can do only step 3 (i.e. coding of the three variables.

Background: Nagorno-Karabakh Ethnic Conflict

Nagorno-Karabakh (N-K), an autonomous region in the Soviet Republic of Azerbaijan with predominantly Armenian population, declared itself as independent in late 1991. De facto independence of the region was never recognized. War (1991-1994) followed the declaration of independence caused 30,000 lives and created more than a million refugees. Armenian-Russian backed N-K ethnic Armenians defeated Azerbaijan forces supported by Turkey. 1994 cease-fire was brokered by Russia that solved no problems such as the territorial dispute or the refugee problem.

United States sponsored Key-West talks in 2001 did not produced an agreement. There are some signs of peace efforts for Armenian President Kocharian and Azeri counterpart Aliyev met in August 2005. However, these talks in Kazakhstan did not succeed in finding a solution to the problem (BBC News).

Various regional and global actors are involved in seek for a resolution to the problem. OSCE's Minsk Group that includes American, Russian and French

ambassadors are responsible for mediating negotiations between Armenia and

Azerbaijan. The U.S. supports the territorial integrity of Azerbaijan and peaceful

solution to the problem while Russia seems to be closer to Armenian position. The

UN also called for withdrawal of Armenian troops from the region in 1994. Turkey

supports ethnically close Azerbaijan and since the war, closed its border with

Armenia that puts a heavy economic burden on Armenian government.

Armenia and the de facto government of N-K refuse any possibility of N-K remaining

in Azeri jurisdiction and declared that independence of the region is not liable to

bargaining. According to a report distributed by Radio Free Europe/Radio Liberty in

2005, one compromise would include Armenian withdrawal from at least 5 of the 7

occupied regions and return of the Azeri refugees to N-K. In return, Azerbaijan would

accept a referendum or plebiscite to determine the future of N-K. These positions

were not officially confirmed by Azeri or Armenian governments and the conflict is

yet to be solved.

Issue Question

What are the attitudes of stakeholders toward Nagorno-Karabakh's autonomy issue?

Instructions for the Area Expert
Step 1.

The following scale, from no self-rule (0) to Nagorno-Karabakh's unification with

Armenia (100) represents the range of possible outcomes for the autonomy issue.

I have defined the following policy positions and the values associated with them as a

guideline. The position scale might not be complete. It may be subject to change in

accordance with your expertise. Please feel free to change the nodes, add/subtract

more positions.

Position Scale

Position	What it actually means
0	No self-rule for the region, regaining control of N-K and centralization by Azerbaijan
20	Withdrawal of all Armenian troops, refugees return to N-K, little autonomy granted to the region
45	Territorial integrity of Azerbaijan protected, large autonomy granted to N-K
60	Armenians withdraw from at least 5 territories of N-K they occupy now, refugees return, Azerbaijan accepts a plebiscite within 10-15 years.
70	Armenians withdraw from at least 5 territories of N-K they occupy now, refugees return, Azerbaijan accepts a plebiscite immediately.
80	Status-quo maintains
90	Independent N-K recognized by the international community
100	N-K unites with Armenia

Step 2

Assuming the dialogue and negotiations between Azerbaijan, Armenia and the international actors will continue in the near future, please identify all the relevant actors (i.e. this can include governments, parties, international organizations, individuals, non-governmental or organized crime groups – inside and outside of Nagorno-Karabakh).

(To facilitate the processes, I have included the following actors who might have a stake in the bargaining processes. **Please feel free to add and subtract actors.** For example if any actor below have no relevance, please simply delete it, or leave data cells blank for the actor.)

Step 3

Using the policy scale for Nagorno-Karabakh issue that you reviewed and updated, please assign each actor:

1. A number for group **resources** between **1 and 100** (You can assign 100 for the most powerful actor in this bargaining and rate other actors relative to the most powerful and each other. Please note there may be more than one actor with resources equal to 100);

2. A number to indicate each stakeholder's **policy position** from **0 to 100** (Please note there maybe more than one actor with the same policy position value);

3. A number to each stakeholder's **salience** for the issue, between **1 and 100** (Please note there maybe more than one actor with the same salience value).

Actor	Resource (1-100)	Position (0-100)	Salience (1-100)
Azeri Government (Aliyev)			
Azeri Opposition Bloc (Azadlıq)			
Armenian Government (Kocharyan)			
Armenian Opposition			
De facto N-K Government (President Ghukasian)			
N-K Opposition (Babayan)			
Russia			
United States			
France			
Turkey			
UN Secretary General			
EU (Other than France)			
EU Council (High Representative Havier Solana)			
Iran			
Georgia			
Kazakhstan			
Turkmenistan			

Questionnaire 3

Issue 3 – South Ossetia

Introduction:

This questionnaire includes two parts. Part I presents a background of the crisis in focus. In part II, 3-steps instructions for coding is explained. In order to facilitate your coding, I have already completed substantial parts of steps 1 and 2. Please review step 1 and step 2. If you think steps 1 and 2 are ready to go, you can do only step 3 (i.e. coding of the three variables.

Background: Crisis in Georgia: South Ossetia Region.

In the twilight of the USSR, South Ossetia, a region in the Soviet Republic of Georgia, declared its intention to secede from Georgia and join the neighboring North Ossetia, a republic in the Russian federation. Tbilisi government rejected the secessionist demands and an inter-ethnic armed conflict began. In 1991, South Ossetia declares independence but never recognized by the international community. In the civil war of 1991-1992, up to a thousand people were killed and 80,000 refugees were created. In July 1992, Russia brokered a cease fire and Russian-Georgian-Ossetian (South and North) peace-keepers were deployed in the region. The conflict was frozen until 2004 (BBC News 2005).

In May 2004 tensions rose and conflict flared up again. New President of Georgia Mikhail Saakashvili, who declared his intention to bring breakaway regions of Georgia to heel, stated Georgia did not recognize the parliamentary elections in South Ossetia and moved troops there, allegedly to fight against organized crime. In August

2004 fighting began between Georgian soldiers and South Ossetian militia. A cease-fire was agreed soon (The Economist Intelligence Unit 2005).

In early 2005, Georgian President Saakashvili offered a peace proposal to South Ossetia. This offer grants some autonomy to the region within Georgia. But the South Ossetians rejected this offer for they aim nothing but full independence. In October 2005, President Saakashvili announced the most recent peace proposal that not only grants South Ossetia a "broad autonomy", but also suggests including US, EU, OSCE into the search for a political settlement and resolution of the issue by 2007 (RFE-Radio Liberty 2005)

The conflict is very important for the security of the energy supply to Europe and the US since it is located only 15 kilometers away from Baku-Tbilisi-Ceyhan (Turkey) pipeline that is politically much supported by the Western powers (Amineh and Houweling 2004).

Issue

What are the attitudes of stakeholders toward autonomy in South Ossetia?

Instructions for the Area Expert

Step 1.

The following scale, from extreme centralization (0) to outright independence (100) represents the range of possible outcomes for the South Ossetian crisis.

I have defined the following policy positions and the values associated with them as a guideline. The position scale might not be complete. It may be subject to change in accordance with your expertise. Please feel free to change the nodes or to indicate positions along the continuum. (I.e., if necessary, please change the assigned numbers for represented positions according to your expertise and/or add more positions to the blank cells that could represent some actors' positions.

Position Scale

Position	What it actually means
0	No self-rule, extreme centralization
20	Return to pre-1990 very limited autonomy for South Ossetia as a sub political unit
45	Limited but increased autonomy granted to South Ossetia
65	"Broad autonomy" granted to South Ossetia, suggested timeframe for resolution is 2007 (As proposed by President Saaskahvili in October 2005)
80	Status Quo (South Ossetia's declared independence is not recognized by the international community; problem is not resolved)
100	Full independence for South Ossetia

Step 2

Assuming the peace proposal offered by Georgian President Saakashvili in October 2005 is the focus of the bargaining for autonomy of South Ossetia; please identify all the relevant actors (i.e. this can include governments, parties, international organizations, individuals, non-governmental or organized crime groups – inside and outside of Georgia).

To facilitate the processes, I have included the following actors who might have a stake in the bargaining processes. **Please feel free to add and subtract actors.** For example if any actor below have no relevance, please simply delete it, or leave data cells blank for that irrelevant actor.

Step 3

Using the policy scale for autonomy issue for South Ossetia, please assign each actor:

1. A number for group **resources** between **1 and 100** (You can assign 100 for the most powerful actor in this bargaining and rate other groups relative to the most powerful and each other. Please note there may be more than one actor with resources equal to 100);

2. A number to indicate each stakeholder's **policy position** from **0 to 100** (Please note there maybe more than one actor with the same policy position value);

3. A number to each stakeholder's **salience** for the issue, between **1 and 100** (Please note there maybe more than one actor with the same salience value).

Actor	Resource (1-100)	Position (0-100)	Salience (1-100)
European Union			
United States			
Georgia-Doves (President Saakashvili, PM Noghaideli, Conflict Resolution Minister Khaindrava, MFA Bezhuashvili)			
Georgia-Hawks (Defense Min. Okruashvili, Interior Min. Merabishvili)			
Georgian Parliament			
Russia			
South Ossetia (Kokoiti)			
OSCE			
Open Society Foundation (Soros)			
North Ossetia			
Abkhazia			
United Nations Secretary General			
GUUAM countries			
Organized Crime (Transnational: Russian, Georgian, South and North Ossetian)			

REFERENCES

Abbasov, Shahin and Khadija Ismailova. 2005. "Pipeline Opening Helps Political Opposition in Azerbaijan," Eurasianet.org, http://www.eurasianet.org/departments/insight/articles/eav060605.shtml

Abbasov, Shahin. 2005. "Azerbaijan: A Road, If not a Referendum, for Nagorno-Karabkah," August 27 2005. Eurasianet.org http://www.eurasianet.org/departments/insight/articles/eav081705.shtml

Adelman, M.A. 1972. *The World Petroleum Market.* Resources for the Future by Johns Hopkins University Press.

Adelman, M.A. 1974. "Politics, Economics, and World Oil" *The American Economic Review.* Vol. 64, No. 2, pp. 58-67.

Adelman, M.A. 1980. "OPEC the Clumsy Cartel." *The Energy Journal* 1 (1): pp. 43-52.

Adelman, M.A. 2004. "The Real Oil Problem." *Regulation.* Vol. 27 No 1.: pp 16-21.

Adelman, M.A.1990. "Mineral Depletion, with Special Reference to Petroleum." *Review of Economics and Statistics.* 72(1):1-10.

Akbaba, Yasemin, Patrick James and Zeynep Taydas. 2006. "One Sided Crises in World Politics: A Study of Oxymoron, Violence and Outcomes," In International Interactions (forthcoming).

Amineh, Mehdi Parvizi. 1999. *Towards the Control of Oil Resources in the Caspian Region.* Münster, Germany: LIT; New York: St. Martin's Press.

Amuzegar, Jahangir. 2003. "Iran's Precarious Public Finance," Middle East Economic Survey. http://www.mees.com/postedarticles/oped/a46n17d01.htm

Aras, Bulent. 1999. *Oil and Geopolitics in the Caspian Sea Region.* Westport, Conn.: Praeger.

Armenian News Agency, "Aliev Gave the USA Directions in Conflict Settlement," 27 April, 2006. http://www.a1plus.am/en/?page=issue&id=38252

Arregui, Javier, Frans Stokman and Robert Thomson. "Compromise, Exchange and Challenge in the European Union." In Robert Thomson et al. eds. European Union Decides. Forthcoming.

Arregui, Javier, Frans Stokman and Robert Thomson. 2004. "Bargaining in the European Union and Shifts in Actors' Policy Positions." *European Union Politics* 5, 47-72.

Banks, J.S. 1990. "Equilibrium Behavior in Crisis Bargaining Games" American Journal of Political Science 34: 599-614.

Bannon, I. and P. Collier. Eds. 2003. *Natural Resources and Violent Conflict: Options and Actions.* World Bank, Washington D.C.

Barton, Barry. Catherine Redgwell, Anitta Ronne and Donald N. Zillman, eds. 2004. Energy Security : Managing Risk in a Dynamic Legal and Regulatory Environment. Oxford; New York : Oxford University Press, 2004.

BBC News, "Iran nuclear response 'in August'", BBC, http://news.bbc.co.uk/2/hi/middle_east/5102544.stm

BBC News, "Timeline: Iran," BBC, http://news.bbc.co.uk/2/hi/middle_east/country_profiles/806268.stm

BBC News, "Country Profile: Iran," BBC, http://news.bbc.co.uk/2/hi/middle_east/country_profiles/790877.stm

BBC News, "Iran – Who Holds the Power?" BBC, http://news.bbc.co.uk/2/shared/spl/hi/middle_east/03/iran_power/html/parliament.stm

BBC News, "Iran: Energy Overview," BBC, http://news.bbc.co.uk/2/hi/middle_east/4688984.stm

BBC News, "Country Profile Azerbaijan," BBC, http://news.bbc.co.uk/2/hi/europe/country_profiles/1235976.stm

BBC News, "Regions and territories: South Ossetia," BBC, http://news.bbc.co.uk/2/hi/europe/country_profiles/3797729.stm

BBC News, "Regions and territories: Nagorno-Karabakh," BBC, http://news.bbc.co.uk/2/hi/europe/country_profiles/3658938.stm

BBC News, "Karabakh holds disputed elections," June 19, 2005, http://news.bbc.co.uk/2/hi/europe/4107988.stm

BBC News, "No agreement on Nagorno-Karabakh," February 11, 2006, http://news.bbc.co.uk/2/hi/europe/4701898.stm

Bernoulli, Daniel 1738. "Specimen Theoriae Novae de Mensura Sortis," Commentarii Academiae Scientiatatum Imperalas Petropolitanae, 5; 175 - 192. (Translated as "Exposition of a New Theory on the Measurement of Risk." Econometrica 22 (1954): 23 - 26.

Black, D. 1958. TheTheory of Committees and Elections. Cambridge: Cambridge University Press.

Bobrow, Davis B. and Robert T. Kudrle. 1979. "Energy R&D: In Tepid Pursuit of Collective Goods." International Organization, Vol. 33, No.2 (Spring, 1979), 149-175.

Bohi, Douglas R. and Michael A. Toman with a contribution by Margaret A. Walls. 1996. *The economics of energy security*. Boston : Kluwer Academic Publishers.

Bohi, Douglas R. and Michael A. Toman. 1995. "Oil and National Security: An Assessment of Externalities and Policies." In Shojai, Siamack. Ed.1995. *The New Global Oil Market: Understanding Energy Issues in the World Economy*. Westport, Conn.: Praeger.

Bohi, Douglas R. W. and David Montgomery. 1982. *Oil Prices, Energy Security, and Import Policy*. Washington, D.C.: Resources for the Future; Baltimore: Distributed by the Johns Hopkins University Press.

Booth, William James, Patrick James and Hudson Meadwell. 1993. *Politics and Rationality*. Cambridge [England]; New York, NY : Cambridge University Press.

BP Statistical Review of World Energy 2003. http://www.bp.com/liveassets/bp_internet/globalbp/STAGING/global_assets/downloads/B/BP_statistical_review_of_world_energy_2003_print_version.pdf

BP Statistical Review of World Energy 2006. http://www.bp.com/productlanding.do?categoryId=91&contentId=7017990

Brams, Steven. 1994. *Theory of Moves*. Cambridge [England]; New York, NY, USA: Cambridge University Press.

Brams, Steven. 2002. "Game Theory in Practice: Problems and Prospects in Applying it to International Relations." In Brecher, Michael and Frank P. Harvey. Eds. 2002. *Millennial Reflections on International Studies*. Ann Arbor: University of Michigan Press.

Brecher, Michael and Frank P. Harvey. Eds. 2002. *Millennial Reflections on International Studies.* Ann Arbor: University of Michigan Press.

Brennan, Michael J. and Eduardo S. Schwartz. 1985. "Evaluating Natural Resource Investments." *The Journal of Business.* Vol. 58, No. 2. pp. 135-157.

Broadman, Harry G. and William W. Hogan. 1988. "Numbers Say Yes (Special Feature: Is an Oil Tariff Justified? An American Debate)." 9(3), pp. 7-29.

Bueno de Mesquita , Bruce and Frans Stokman. 1994. *European Community Decision Making: Models, Applications, and Comparisons.* New Haven: Yale University Press.

Bueno de Mesquita , Bruce. 2002. *Predicting Politics*. Columbus: Ohio State University Press.

Bueno de Mesquita , Bruce. 2003. *Principles of International Politics: People's Power, Preferences and Perceptions.* Washington, D.C.: CQ Press.

Bueno de Mesquita, Bruce and David Lalman. 1992. *War and Reason.* New Haven: Yale University Press, 1992. Paperback edition in 1994.

Bueno de Mesquita, Bruce and David Newman and Alvin Rabushka. 1985. *Forecasting Political Events: The Future of Hong Kong*. New Haven: Yale University Press, 1985. Paperback edition in 1988.

Bueno de Mesquita, Bruce and David Newman and Alvin Rabushka. 1996. *Red Flag Over Hong Kong*. Chatham, NJ: Chatham House.

Bueno de Mesquita, Bruce and Frans Stokman eds.. 1994. *European Community Decision Making: Models, Applications, and Comparisons*. New Haven: Yale University Press.

Bueno de Mesquita, Bruce. 1981. *The War Trap*. New Haven: Yale University Press, 1981. Paperback edition in 1983.

Bueno de Mesquita, Bruce. 1997. "A Decision Making Model: Its Structure and Form" *International Interactions* 23: 235-66.

Bueno de Mesquita, Bruce. 2002. "Accomplishments and Limitations of a Game-Theoretic Approach to International Relations." In Brecher, Michael and Frank P.Harvey. Eds. 2002. *Millennial Reflections on International Studies.* Ann Arbor: University of Michigan Press.

Bueno de Mesquita, Bruce. 2004. "Decision-Making Models, Rigor and New Puzzles". European Union Politics. Volume 5 (1): 5-23.

Bunn, Derek and Erik R. Larsen. 1997. *Systems Modeling for Energy Policy*. Chichester; New York: Wiley.

Burkardt, Nina and Berton Lee Lamb, Jonathan G. Taylor. 1997. "Power Distribution in Complex Environmental Negotiations: Does Balance Matter?"

Campbell, John C. October 1977. "On Power: Oil Power in the Middle East." *Foreign Affairs*. Published by Council on Foreign Relations.

Chandler, William. 2000. *Energy and Environment in the Transition Economies: Between Cold War and Global Warming*. Boulder, Colo.: Westview Press.

Cheney, Richard. "Vice President's Remarks at the 2006 Vilnius Conference Reval Hotel Lietuva, Vilnius, Lithuania."
http://www.whitehouse.gov/news/releases/2006/05/20060504-1.html

Choucri, Nazli and Robert C. North. 1975. *Nations in Conflict: National Growth and International Violence*. San Francisco: W.H. Freeman & Co.

Choucri,.Nazli. 1974. *Population Dynamics and International Violence: Propositions, Insights and Evidence.* Lexington, Mass.: D.C. Heath/Lexington Books.

Chubin, Shahram. 2002. *Whither Iran? Reform, Domestic Politics and National Security*. New York, Oxford University Press for the International Institute of Strategic Studies.

Clark, John G. 1991. *The Political Economy of World Energy: a Twentieth-Century Perspective*. Chapel Hill: University of North Carolina Press.

Clemens, Walter C. 2001. *The Baltic Transformed: Complexity Theory and European Security.* Lanham: Rowman & Littlefield Publishers.

Coffey, Peter. 1993. *Main Economic Policy Areas of the EC - after 1992*. Dordrecht ; Boston : Kluwer Academic.

Communication from the Commission to the Council and the European Parliament: Final Report on the Green Paper "Towards a European strategy for the security of energy supply". Brussels, 26.6.2002. COM(2002) 321 Final.

Copaken, Robert R. 1995. "Oil as a Strategic Commodity." In Shojai, Siamack. Ed.1995. *The New Global Oil Market: Understanding Energy Issues in the World Economy*. Westport, Conn.: Praeger.

Cordesman, Anthony H. 2005. *Iran's Developing Military Capabilities*. Washington, D.C.: CSIS Press.
The Uncertain Nature of Iran's Nuclear Programs."

Cornes, Richard and Todd Sandler. 1996. *The Theory of Externalities, Public Goods, and Club Goods.*. Cambridge; New York: Cambridge University Press, 1996. 2nd ed.

Cutler, Robert M. 2004. "A Transnational Policy for Conflict Reduction and Prevention in the South Caucasus" in Mehdi Amineh and Henk Houweling eds. *Central Eurasia in Global Politics: Conflict, Security and Development.*Koninklijke Brill NV, Leiden, The Netherlands.

Dahl, Carol A. 2004. *International Energy Markets: Understanding Pricing, Policies, and Profits*. Tulsa, Okla.: PennWell.

DeBardeleben Joan and John Hannigan. 1995. *Environmental Security and Quality After Communism: Eastern Europe and the Soviet Successor States.* Boulder: Westview Press.

Deese, David A. "Energy: Economics, Politics and Security". *International Security.* Vol. 4, No. 3. (Winter, 1979-1980), pp. 140-153.

Deese, David and Joseph Nye. Eds. 1981. *Energy and security.* Cambridge, Mass.: Ballinger Pub. Co.

Diehl, Jackson. June 21, 2006. "Russia: Moscow Playing 'Aggressive' Game, And U.S. Needs To Catch Up." RFE/RL.
http://www.rferl.org/featuresarticle/2006/06/1789fa87-5613-41a3-a55c-13885a484a4d.html

Dixit, Avinash K. and Robert S. Pindyck. 1994. *Investment under Uncertainty.* Princeton, N.J. : Princeton University Press.

Doran, Charles F. 1977. *Myth, Oil, and Politics: Introduction to the Political Economy of Petroleum.* New York: Free Press.

Doran, Charles F. 1980. "OPEC Structure and Cohesion: Exploring the Determinants of Cartel Policy." *The Journal of Politics*. Vol. 42, No. 1. pp. 82-101.

Doran, Charles F. and Stephen W. Buck Eds.1991. *The Gulf, Energy, and Global Security: Political and Economic Issues*. Boulder, Colorado: L. Rienner Publishers.

Eastwood, Robert K. 1992. "Macroeconomic Impacts of Energy Shocks" *Oxford Economic Papers, New Series.* Vol. 44, No. 3. pp. 403-425.

Ebel, Robert and Rajan Menon eds. 2000. *Energy and conflict in Central Asia and the Caucasus.* Lanham, Md. : Rowman & Littlefield Publishers.

EIA 2005, Country Analysis Briefs, Azerbaijan.
http://www.eia.doe.gov/emeu/cabs/azerbjan.html

EIA, Country Analysis Brief, Caucasus Region, December 2004.
http://www.eia.doe.gov/emeu/cabs/Caucasus/Background.html

Accessed at May 5 2006.

EIU Economist Intelligence Unit. February 1st 2005. Country Report, Main Report. "The Political Scene: Mr. Saakashvili Offers South Ossetia More Autonomy." www.eiu.com

Ellsberg, Daniel. 1963. "Risk, Ambiguity, and the Savage Axioms," *The Quarterly Journal of Economics*, Vol. 77, No. 2. (May, 1963), pp. 336-342.

Feng, Yi. 1997. "Economic Reforms in China: Logic and Dynamism" *International Interactions* 23, 3-4.

Francois Heisbourg, director of the Fondation pour la Recherche Strategique in Paris. BBC News: "Viewpoints: Iran's nuclear crisis".
http://news.bbc.co.uk/2/hi/middle_east/4290161.stm#heisbourg

Freedom House: Azerbaijan 2005.
http://www.freedomhouse.org/template.cfm?page=22&year=2005&country=6689

Friedman. Francine, and Ismene Gizelis. 1997. "Fighting in Bosnia: An Expected Utility Evaluation of Possible Settlements" *International Interactions* 23, 3-4.

Fuller, Liz. "Georgia: Latest Peace Initiative For South Ossetia Unveiled," Tuesday, November 1, 2005. http://www.rferl.org/featuresarticle/2005/11/c412dcbd-7d53-47c0-85fd-93b9817b2b5a.html

Fuller, Liz. 2006. "Azerbaijan: Strains within Opposition Intensify," Radio Free Europe/ Radio Liberty, February 3, 2006.
http://www.rferl.org/featuresarticle/2006/02/b95e9d24-7367-4b1f-81d5-c8d3e5c5d96c.html

Gasteyger, Curt. 1985. *The Future for European Energy Security.* New York: St. Martin's Press.

Georgia. CIA The World Factbook
http://www.cia.gov/cia/publications/factbook/geos/gg.html

Gilpin, Robert. 2001. *Global Political Economy: Understanding the International Economic Order.* Princeton, N.J.: Princeton University Press.

Gökay, Bülent. 2001. *The Politics of Caspian oil*. New York: Palgrave.

Grant, Lindsey. Ed. 1992. *Elephants in the Volkswagen: Facing the Tough Questions about our Overcrowded Country.* New York: W.H. Freeman.

Green Paper – Towards a European Strategy for the Security of Energy Supply: Technical Document.

Green Paper: Towards a European Strategy for the Security of Supply. European Commission 2000. [29 November 2000 (COM (2000) 769 Final)]

Greenberger, Martin. 1983. *Caught Unawares.* Cambridge, Mass.: Ballinger.

Griffin, James M. 1985. "OPEC Behavior: A Test of Alternative Hypotheses." *American Economic Review*. 75:954–63.

Gurr, Ted Robert. 1985. "On the Political Consequences of Scarcity and Economic Decline." *International Studies Quarterly*, Vol. 29, No. 1. pp. 51-75.

Hamilton, James D. 1983. "Oil and the Macroeconomy since World War II." *The Journal of Political Economy.* Vol. 91, No. 2. pp. 228-248.

Hamilton, Lee H. 2005. "Foreword" In *Energy and Security: Toward a New Foreign Policy Strategy.*. Eds. Jan H. Kalicki and David L.Goldwyn.Washington, D.C.: Woodrow Wilson Center Press; Baltimore : Johns Hopkins University Press.

Hancher, Leigh and Sally Jansen. 2004. "Shared Competences and Multi-Faceted Concepts – European Legal Framework for Security of Supply" in Barton, Barry. Catherine Redgwell, Anitta Ronne and Donald N. Zillman, eds. 2004. Energy security: managing risk in a dynamic legal and regulatory environment. Oxford ; New York : Oxford University Press, 2004.

Heisbourg, Francois. Director of the Fondation pour la Recherche Strategique in Paris. BBC News: "Viewpoints: Iran's nuclear crisis".
http://news.bbc.co.uk/2/hi/middle_east/4290161.stm#heisbourg

Hubbard, R. Glenn. 1986. "Supply Shocks and Price Adjustment in the World Oil Market." *The Quarterly Journal of Economics.* Vol. 101, No. 1, pp. 85-102.

Hydrocarbons Technology Website, "BTC Caspian Pipeline."
http://www.hydrocarbons-technology.com/projects/bp/index.html#bp9

IAEA Website. "In Focus: IAEA and Iran."
http://www.iaea.org/NewsCenter/Focus/IaeaIran/index.shtml

Ikenberry, G. John. 1986. "The Irony of State Strength: Comparative Responses to the Oil Shocks in the 1970s." International Organization, Vol.40, No. 1 (Winter, 1986), 105-137.

Ingram, Paul. 2005. "Occasional Papers on International Security. Preliminary analysis of E3/EU proposal to Iran," British American Security Information Council, http://www.basicint.org/pubs/Notes/BN050811-IranEU.htm

Isidore, Chris. 2006. "Will Iran dispute push oil to $130?" CNNMoney.com, http://money.cnn.com/2006/02/07/news/international/iran_oil/index.htm

Islam, Shada. Deutsche Presse-Agentur (dpa), Wednesday, June 14, 2006
http://rigzone.com/news/article.asp?a_id=33117

Ismailzade, Fariz. 2004. "A strategic approach to pipeline security," *Energy Security*. Institute for the Analysis of Global Security, November 15, 2004.

James, Patrick and Ozgur Ozdamar. 2004. "The United States and North Korea: Avoiding a Worst-Case Scenario." In *Contemporary Cases in U.S. Foreign Policy: From Terrorism to Trade,* edited by Ralph Carter. Washington, DC: CQ Press.

James, Patrick. 2002. *International Relations and Scientific Progress: Structural Realism Reconsidered.* Columbus: Ohio State University Press.

Kalicki, Jan H. and David L. Goldwyn. 2005. "Introduction: the Need to Integrate Energy and Foreign Policy." In *Energy and Security: Toward a New Foreign Policy Strategy*. Eds. Jan H. Kalicki and David L.Goldwyn.Washington, D.C.: Woodrow Wilson Center Press; Baltimore: Johns Hopkins University Press.

Kalyuzhnova, Yelena Kalyuzhnova. *Energy in the Caspian Region: Present and Future.* New York: Palgrave, 2002.

Kalyuzhnova,Yelena and Dov Lynch. 2000. *The Euro-Asian World: a Period of Transition*. New York: St. Martin's Press, in association with the Centre for Euro-Asian Studies.

Keenan, Boyd R. 1968. "High Energy Administration: Big Science Model for the Future?" *Public Administration Review*, Vol. 28, No. 3., pp. 250-255.

Kemp, Geoffrey. 1978. "Scarcity and Strategy." *Foreign Affairs.* January 1978. Published by Council on Foreign Relations.

Keohane, Robert O., Joseph S. Nye. 1977. *Power and Interdependence: World Politics in Transition.* Boston: Little, Brown.

Keohane, Robert.1984.*After Hegemony: Cooperation and Discord in the World Political Economy.* Princeton, N.J.: Princeton University Press.

Khachatrian, Haroutiun. "Nagorno-Karabakh: Another Summit Meeting is Planned," May 09 2006. Eurasia Insight.
http://www.eurasianet.org/departments/insight/articles/eav050906.shtml

Khachatrian, Haroutiun. 2005. "Eurasia Insight Nagorno-Karabakh: Peace on the Horizon?" Eurasianet.org,
http://www.eurasianet.org/departments/insight/articles/eav081705b.shtml

Khristenko, Viktor and Francois Lamoureux. 2004. EU-Russian Energy Dialogue: Fifth Progress Report.

Kibritçioğlu, Aykut and Bengi Kibritçioğlu. 1998. Paper presented: "Inflationary Effects of Increases in Crude and Fuel Oil Prices in Turkey" (in Turkish). International METU Conference on Economics Economic Research Center, Middle East Technical University, Ankara, September 9-12, 1998.

Klare, Michael. 2001. *Resource Wars: The New Landscape of Global Conflict.* New York: Metropolitan Books.

Kleveman, Lutz.2003. *The New Great Game: Blood and Oil in Central Asia* New York: Grove Press.

Kugler, Jacek and Doris Andrea Fuchs and Harry Pachon. 1997. "'NAFTA From Congressional Passage to Implementation Woes." *International Interactions* 23, 3-4.

Kugler, Jacek and Doris Andrea Fuchs and Harry Pachon.1997. "NAFTA' From Congressional Passage to Implementation Woes." *International Interactions* 23, 3-4.

Kugler, Jacek and M. Andrew Abdollahian. 1997. "Unrevealing The Ties That Divide: Russian Political Succession,"*International Interactions* 23, 3-4.

Kugler, Jacek and Yi Feng. 1997. "Foreword" "The Expected Utility Approach to Policy Decision Making." Co-editor with Yi Feng Special Issue of *International Interactions* (23, 3-4).

Kugler, Jacek, Ronald L. Tammen and Brian Efird. 2004. "Integrating Theory and Policy: Global Implications of the War in Iraq". *International Studies Review*. Volume 6 Issue 4 Page 163 - December 2004.

Kugler, Yacek, Birol Yesilada, Brian Effird. 2003. "The Political Future of Afghanistan and its Implications for US Policy." *Conflict Management and Peace Science*, Vol. 20, No. 1, 2003.

Kupchinsky, Roman. 2005. "Caucasus: Is the BTC Oil Pipeline Saving Europe from Russia or from OPEC?" Radio Free Europe/Radio Liberty, May 31, 2005.

Lambright, W. Henry. 1998. "Downsizing Big Science: Strategic Choices." *Public Administration Review*. Vol. 58, No. 3, pp. 259-268.

Le Billon, Philippe. Ed. 2005. "Geopolitics of Resource Wars: Resource Dependence, Governance and Violence." *Geopolitics*, London, Frank Cass.

Lieber, Robert J. 1980. "Energy, Economics and Security in Alliance Perspective". *International Security*. Vol. 4, No 4 (Spring, 1980), 139-163.

Lieber, Robert. 1983. *Will Europe Fight for Oil?: Eenergy Relations in the Atlantic Area.* New York, N.Y.: Praeger.

Light, Alfred R.1976. "Federalism and the Energy Crisis: A View from the States." *Publius. The States as Keystones: A Bicentennial Reassessment.* Vol. 6, No. 1, pp. 81-96.

Light, Alfred R. 1979. "The Legislated Role of the States in the National Energy Acts." Publius." *The State of American Federalism, 1978*. Vol. 9, No. 1, pp. 188-189.

Lindblom, Charles E. and David K. Cohen. 1979. *Usable Knowledge: Social Science and Social Problem Solving.* New Haven: Yale University Press. London ; Thousand Oaks, Calif : Sage Publications, 2001.

Luft, Gal. 2004. "Baku-Tbilisi-Ceyhan Pipeline: Not Yet Finished and Already Threatened," Energy Security. Institute for the Analysis of Global Security. November 4, 2004.

MacAvoy, P. 1982. *Crude Oil Prices as Determined by OPEC and Market Fundamentals.* Ballinger Publishing Company, Cambridge, MA.

Malthus, Thomas. *An Essay on the Principle of Population, as It Affects the Future Improvement of Society with Remarks on the Speculations of Mr. Godwin, M. Condorcet, and Other Writers.* London, Printed for J. Johnson in St. Paul's Churcu-Yard, 1798. Rendered into HTML format by Ed Stephan, 10 Aug 1997: URL Address: http://www.ac.wwu.edu/~stephan/malthus/malthus.0.html

Mandel, Robert. 1980. "Transnational Resource Conflict: The Politics of Whaling." *International Studies Quarterly*, Vol. 24, No. 1., pp. 99-127.

Mandel, Robert. 1988. *Conflict over the World's Resources: Background, Trends, Case Studies, and Considerations for the Future.* New York: Greenwood Press.

Martin, Lisa. 1992. *Coercive Cooperation: Explaining Multilateral Economic Sanctions.* Princeton, N.J.: Princeton University Press.

Matláry, Janne Haaland. 1997. *Energy Policy in the European Union* New York : St. Martin's Press.

Matveeva, Anna. 2002. "Georgia." In van Tongeren, Paul and Hans van de Veen and Juliette Verhoeven eds. *Searching for Peace in Europe and Eurasia: An Overview of Conflict Prevention and Peacebuilding Activities.* Boulder, Colo.: Lynne Rienner Publishers, 2002.

Matveeva, Anna. 2002. "Nagorno-Karabakh." In van Tongeren, Paul and Hans van de Veen and Juliette Verhoeven eds. *Searching for Peace in Europe and Eurasia: An Overview of Conflict Prevention and Peacebuilding Activities.* Boulder, Colo.: Lynne Rienner Publishers, 2002.

McGowan, Francis. 1996. *European Energy Policies in a Changing Environment.* Heidelberg: Physica-Verlag.

Miller, Linda B. 1977. "Energy, Security and Foreign Policy: A Review Essay." International Security. Vol. 1, No. 4 (Spring 1977), 111-123.

Miller, Marcus and Lei Zhang. 1996. "Oil Price Hikes and Development Triggers in Peace and War" *The Economic Journal.* Vol. 106, No. 435, pp. 445-457.

Mir-Babayev, Mir-Yusif. 2002. "Azerbaijan's Oil History. A Chronology Leading up to the Soviet Era," Azerbaijan International, http://www.azer.com/aiweb/categories/magazine/ai102_folder/102_articles/102_oil_chronology.html

Moe, Ronald C. 1979. "Government Corporations and the Erosion of Accountability: The Case of the Proposed Energy Security Corporation." *Public Administration Review.* Vol. 39, No. 6, pp. 566-571.

Molnar, Joseph J. and David L. Rogers. 1979. "A Comparative Model of Interorganizational Conflict." *Administrative Science Quarterly.* Vol. 24, No. 3. pp. 405-425.

Moran, Theodore H. 1978. *Oil Prices and the Future of OPEC: the Political Economy of Tension and Stability in the Organization of Petroleum Exporting Countries.* Washington: Resources for the Future.

Nanay, Julia. 2005. "Russia and the Caspian Sea Region" In *Energy and Security: Toward a New Foreign Policy Strategy.* Eds. Jan H. Kalicki and David L.Goldwyn.Washington, D.C.: Woodrow Wilson Center Press; Baltimore: Johns Hopkins University Press, c2005.

National Assembly of the Republic of Armenia, "National Assembly of the Republic of Armenia (Overview)", National Assembly of the Republic of Armenia, http://www.parliament.am/parliament.php?id=history&lang=eng

National Security (United States) Study Memorandum[1] 219, US-Iran Agreement on Cooperation in Civil Uses of Atomic Energy (March 14, 1975).

National Security (United States) Decision Memorandum 292, US-Iran Nuclear Cooperation (April 22, 1975).

National Security (United States) Decision Memorandum 324, Negotiation of a Nuclear Agreement with Iran (April 20, 1976).

National Security (United States) Study Memorandum 238, U.S Policy Toward the Persian Gulf (February 13, 1976).

Nicholson, Michael. 2002. "Formal Methods in International Relations." In Brecher, Michael and Frank P. Harvey. Eds. 2002. *Millennial Reflections on International Studies.* Ann Arbor: University of Michigan Press.

Nye, Joseph. 1982. "Energy and Security in the 1980s." *World Politics.* Vol. 35, No. 1. (Oct., 1982), pp. 121-134.

---

[1] **Locations:** Box 1, National Security Decision Memoranda and Study Memoranda, Gerald R. Ford Library**.** Box 2, National Security Decision Memoranda and Study Memoranda, Gerald R. Ford Library

Nye, Joseph. 2005. *Understanding International Conflicts: an Introduction to Theory and History*. New York: Pearson/Longman.

Office of the Nagorno-Karabakh Republic in the USA, "The Parliament of the Nagorno Karabakh Republic," Office of the Nagorno-Karabakh Republic, http://www.nkrusa.org/country_profile/national_assembly.shtml

Open Society Institute Website http://www.soros.org/about/overview

Organski, A.F.K. and Ellen Lust-Okar. 1997. "The Tug of War over the Status of Jerusalem: Leaders, Strategies and Outcomes." *International Interactions* 23, 3-4.

Ozhiganov, Edward. 1997. "The Republic of Georgia: Conflict in Abkhazia and South Ossetia" in *Managing Conflict in the Former Soviet Union*. Editors: Alexei Arbatov, Abram Chayes, Antonia Handler Chayes, Lara Olson. The MIT Press Cambridge Massachusetts, London England.

Peuch, Jean_Christophe. 2005. "Caucasus/Central Asia: Analysts Expect Security, Economic Gains From BTC Pipeline," Radio Free Europe/ Radio Liberty, May 25, 2005.

Putin, Vladimir. December 22, 2005. "Opening Address at the Security Council Session on Russia's Role in Guaranteeing International Energy Security." http://www.kremlin.ru/eng/speeches/2005/12/22/2222_type84779_99439.shtml

Radio Free Europe Radio Liberty (RFE/RL). August 11 2005. "Factbox: Timeline of the Iranian Nuclear Crisis." http://www.rferl.org/featuresarticle/2005/8/19C76894-2A3A-49D7-96A5-02039F66FD20.html

Ray, J.L. and Bruce Russett. "The Future as Arbiter of Theoretical Controversies: Predictions, Explanations, and the End of the Cold War". *British Journal of Political Science. 25: 441-70.*

Ray, James Lee. 1997. "A Post Mortem on the Predictions: Criteria, Complaints, and Compliments. *International Interactions.* 23, 3-4.

Redgwell, Catherine. 2004. "International Energy Security" Barton, Barry. Catherine Redgwell, Anitta Ronne and Donald N. Zillman, eds. 2004. *Energy Security: Managing Risk in a Dynamic Legal and Regulatory Environment.* Oxford; New York : Oxford University Press, 2004.

Reuveny, Rafael and John W. Maxwell. "Conflict and Renewable Resources." *The Journal of Conflict Resolution*. Vol. 45, No. 6. pp. 719-742.

Richardson, Bill. 2005. "Foreword" In *Energy and Security: Toward a New Foreign Policy Strategy.*. Eds. Jan H. Kalicki and David L.Goldwyn.Washington, D.C.: Woodrow Wilson Center Press; Baltimore: Johns Hopkins University Press, c2005.

Russett, Bruce M. 1963. "The Calculus of Deterrence." *Journal of Conflict Resolution.* Vol. 7, (2), 97 - 109.

Russett, Bruce. 1981-1982. "Security and the Resources Scramble: Will 1984 be Like 1914?" *International Affairs (Royal Institute of International Affairs* 1944, Vol. 58, No. 1. pp. 42-58.

Sahimi, Mohammed. 2003. "Iran's Nuclear Program: Part 1: Its History." Payvand. http://www.payvand.com/news/03/oct/1015.html

Schelling, Thomas. 1960. *The Strategy of Conflict*. Cambridge: Harvard University Press.

Schlesinger, James R. 2005. "Foreword" In *Energy and Security: Toward a New Foreign Policy Strategy.* Eds. Jan H. Kalicki and David L.Goldwyn.Washington, D.C.: Woodrow Wilson Center Press; Baltimore: Johns Hopkins University Press, c2005.

Shojai, Siamack. Ed.1995. *The New Global Oil Market: Understanding Energy Issues in the World Economy*. Westport, Conn.: Praeger.

Shubik, Lloyd and L. S. Shapley. "A Method for Evaluating the Distribution of Power in a Committee System" *The American Political Science Review*, 48, 3, September 1954, 787-792.

Sieminski, Adam E. 2005. "World Energy Futures" In *Energy and Security: Toward a New Foreign Policy Strategy.*. Eds. Jan H. Kalicki and David L.Goldwyn.Washington, D.C.: Woodrow Wilson Center Press; Baltimore: Johns Hopkins University Press, c2005.

Singer, J. David, Stuart Bremer, and John Stuckey. (1972). 'Capability Distribution, Uncertainty, and Major Power War, 1820-1965.' in Bruce Russett (ed) *Peace, War, and Numbers*, Beverly Hills: Sage, 19-48.

Stephen, Krasner. 1978. *Defending the National Interest: Raw Materials Investments and U.S. Foreign Policy*. Princeton, N.J.: Princeton University Press.

Stokman, Frans, and Robert Thomson. 2004. "Winners and Losers in the European Union". European Union Politics. Volume 5 (1): 5-23.

Study on Energy Supply Security and Geopolitics. 2004. Prepared for the European Commission and DG Transport and Energy by the Clingendael International Energy Programme (CIEP) and Clingendael Institute for International Relations.

Sustainable Energy Developments in Europe and North America. Economic Commission for Europe, Geneva. New York : United Nations, 1991.

Tait, Robert. 2006. "Iran Issue Stark Warning on Oil Price," *The Guardian*, January 16, 2006.

Treverton, Gregory. 1980. *Energy and Security Farnborough.* Hampshire, England; Montclair, N.J.

Tribus, Myron. 1975. "The Case for an Energy Commission." *Public Administration Review.* Vol. 35, No. 4., pp. 317-322.

Trolldalen, Jon Martin. 1992. *International Environmental Conflict Resolution: The Role of the United Nations*. New York: UNITAR. Tuesday, November 1, 2005 http://www.rferl.org/featuresarticle/2005/11/c412dcbd-7d53-47c0-85fd-93b9817b2b5a.html

UNICEF Georgia Map. http://www.unicef.org/infobycountry/files/Georgia_DU_15Sep2005.pdf

van der Schriek, Daan. 2003. "Little to Loose: Opposition in Azerbaijan," Eurasianet.org, http://www.eurasianet.org/departments/rights/articles/eav020303.shtml

Van Evera, Stephen. 1997. *Guide to Methods for Students of Political Science*. Ithaca: Cornell University Press.

von Neumann, John and Oskar Morgenstern. 1944. *Theory of Games and Economic Behavior*, Princeton Univ. Press, Princeton NJ.

Weimer, David L. 1995. "Petroleum and National Security." In Shojai, Siamack. Ed.1995. *The New Global Oil Market: Understanding Energy Issues in the World Economy*. Westport, Conn.: Praeger.

Willrich, Mason and Joel Darmstadter. 1975. *Energy and World politics.* New York: Free Press,

Wilson, Ernest J. 1987. "World Politics and International Energy Markets". International Organization, Vol. 41, No. 1. (Winter, 1987), pp. 125-149.

Yergin, Daniel. 1991. The Prize: The Epic Quest for Oil, Money & Power. New York: Simon & Schuster.

Yergin, Daniel. 2005. "Energy Security and Markets" In *Energy and Security: Toward a New Foreign Policy Strategy*. Eds. Jan H. Kalicki and David L.Goldwyn.Washington, D.C.: Woodrow Wilson Center Press; Baltimore: Johns Hopkins University Press.

Yetkin, Murat. "Enerji Turkiye'nin en buyuk AB kozlarindan biri". Radikal (Turkish Daily Newspaper. 8 April 2005.

URLs of the Maps and Data from Energy Information Agency, UNICEF and University of Texas Websites

Map 5-1-2-1 and Map 5-1-2-2: Caspian Region Oil and Gas Routes Maps

http://www.eia.doe.gov/emeu/cabs/Caspian/Maps.html

Map 6-1-1-1: Georgia by Regions Map

http://www.unicef.org/infobycountry/georgia.html

Map 6-1-1-2: Ethno-Caucasus Map

http://www.lib.utexas.edu/maps/commonwealth/ethnocaucasus.jpg

Tables 6-1-2-1, Table 6-1-2-2 and Table 6-1-2-3: Caucasus Region Statistics

http://www.eia.doe.gov/emeu/cabs/Caucasus/SummaryTables.html

VITA

İbrahim Özgür Özdamar was born on July 12, 1977 in İzmir, Turkey. He received his B.S. in Political Science and Public Administration from the Middle East Technical University (1999), Ankara, Turkey and Ph.D. from University of Missouri-Columbia (2006). His research interests are international relations (IR theory, international conflict and international political economy, energy security) and comparative politics (Eurasian and Middle Eastern politics). He has published two articles, two book chapters and has been working on several other articles. His single and co-authored publications appeared in *International Studies Review, Terrorism and Political Violence, Contemporary Cases in American Foreign Policy and Defense and Security: A Compendium of National Armed Forces and Security Policies.* He also received the Superior Graduate Student Achievement Award of University of Missouri-Columbia in 2005. His email and web addresses are ozgurozdamar@yahoo.com and www.ozgurozdamar.com.