

**The Real “Syriana”: Interlocking Directorates Shaping a Defense-
Petroleum-Policy Complex**

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Dissertation submitted to the Faculty of the Virginia Polytechnic Institute and
State University in partial fulfillment of the requirements for the degree of Doctor
of Philosophy in Sociology

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March 31, 2009

Blacksburg, Virginia

Keywords: interlocking directorates, military-industrial complex, oil, defense
contractor

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Abstract

Corporate interlocks between U.S. firms are a long-studied issue, and the apparent influence of these interlocks can be examined by applying theories of capitalism vs. the state arguments in examining the actual policy power that these interlocks potentially wield. This study investigates the link between corporate executives of the United States petroleum and military-defense industries, and examines the implications of the interlocking directorates that exist between these two industries, along with the strength of ties to government through former lawmakers and bureaucrats seated on these boards. The purpose of this research is to uncover evidence as to whether these interlocks and social network-ties are being utilized to further mutual interests of both these industries, along with the state, notably U.S.-led or U.S.-financed military or covert actions in petroleum-rich regions across the globe. The analysis reveals that interlocking directorates between the petroleum and defense industries show a high frequency of interlocks relative to other industries, along with a strong connection to government. This study points to the potential that oil-rich regions may have undergone U.S. military and covert interventions in an effort to not only gain access to petroleum,

but to further the economic interests of the petroleum and defense industries. These findings lead to the conclusion that a real “Syriana,” as in the plot of the 2005 film, may have been executed on two primary occasions during the George W. Bush administration.

Acknowledgments

Many people played a pivotal role in the development in this project. I would first like to acknowledge those that were involved in this study hands-on: Dr. Dale Wimberley, Dr. James Hawdon, Dr. P.S. Polanah, Dr. Ted Fuller, and Dr. William Snizek. These five faculty members provided the necessary insights, suggestions, and motivation I needed to continue pushing through this endeavor. This study began as a curiosity and ended as a dissertation, and I must give thanks to Dr. Snizek for encouraging me to develop this idea into a dissertation topic

Others for whom I owe gratitude to are: Josh On, the creator of *theyrule.net*, who provided me with the data necessary to conduct this study. Dr. William Wood at the University of Hawaii for acting as a surrogate advisor in the fall of 2008 and providing me with a private office space to work, and Dr. Joe Bond at Harvard University for encouraging me to “lock [myself] away and just write.”

My most heartfelt gratitude goes out to Dr. Dale Wimberley for sticking by me, every step of the way through my tenure at Virginia Tech. From being the first faculty member I met the day I stepped foot in the Sociology department office in 2004, to the 7PM meetings in his office combing over the dissertation this winter. Thank you for the professional and personal care you provided me in

my four years working with you. I truly can never say thank you enough. You have been very gracious with your precious time, thank you for this Dr. Wimberley.

To Dr. James Hawdon, you were an inspiration to me, and a model of what I hope to become in my career. You encouraged me, guided me, believed in me, and kept me going at times when I doubted there was an end. Thank you dearly, Dr. Hawdon.

To my dear friend Frances, I owe you an enormous thank you. Though you came into my life at the tail-end of this project, it would not have been completed without your daily encouragements and the constant uplifting communications you would send me. You assured me that I would make it through, and sometimes I asked you to say those assurances as promises, and you did. This dissertation has your spirit in it. I am so thankful you came into my life when you did, the dissertation angels must have sent you.

Lastly and most importantly, I would like to thank my family: my mother, my father, my sister Leena, and my sister Nadine. This road was hard, harder than maybe we all expected, but like everything else in our family, the trials of one become the trials of all. I knew I was never alone in this process, I could feel all four of you with me as I trudged through a foot of snow the day I began my comprehensive exams, and I could feel all four of you with me on the 4AM mornings I would still be awake struggling with my data while the rest of the

world slept. Though our lives may call on us to be far from one another, your love stays with me through each journey that I embark. You four are my rock and my inspiration, and this dissertation is not my own, it belongs to the five of us.

Dedication

This dissertation is dedicated to my mother and my father, and the parents that raised them. Growing up in British mandated Palestine, and working as simple small-scale farmers, my grandparents laid the groundwork for the opportunity that I have been given to humbly be a part of the academic world. Their hard work and sacrifices gave my parents the strength and courage to take the unimaginable journey that they did to the United States and work their way up an unforgiving ladder. From minimum wage fast-food jobs to temp agencies, my parents have consistently made the most tremendous sacrifices for me and my two sisters. Never have I seen or experienced two people who are more ethical, selfless, generous, gracious, and humble as the two of them. I can say without hesitation that they are the two finest people I have ever known.

Mama, Baba, late Sido Hussein, the late Sity Zlaykha, the late Sido Abed, and the late Sity Souad, this dissertation is dedicated to you.

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Preface

This study emerged from a research paper for a graduate course in organizations I took in Fall 2006 with Dr. William Snizek at Virginia Tech. At the time I was interested in studying how corporations might exploit interlocking directorates as a means of collusion. I was particularly interested in whether an interlocking directorate connection existed between the petroleum and defense industries because it appeared that both of these industries were benefiting from the conflict in Iraq, and I suspected that I might find indications of collusion between these two industries.

I created the first map of interlocks between petroleum and defense on theyrule.net on Thanksgiving morning of 2006 at my parent's home in Washington State. Almost immediately as I finished the map of connections I rushed to show it to my family, I knew I had something. As the day passed I began to think more and more about the discovery I might have made and it reminded me of a film I had seen a year earlier, *Syriana*, starring George Clooney, Matt Damon, and Jeffrey Wright. In this film George Clooney plays a covert Central Intelligence Agency (CIA) agent who speaks fluent Arabic and conducts clandestine operations in the Middle East. Matt Damon plays a Geneva-based energy analyst, who serves as the chief economic advisor for the prince of an unnamed Persian Gulf nation, who has awarded a non-U.S. petroleum firm

exploratory rights to his nation's oilfields. And Jeffrey Wright plays an attorney responsible for executing a merger between a petroleum-giant, Connex, with a lesser known petroleum firm, Killeen, despite the merger appearing to be an anti-trust violation. The storyline centers around covert U.S. operations, anti-trust, mergers and acquisitions, U.S. hegemony, and the exercise of U.S. force against Middle East leaders. The story of the three main characters comes together when the CIA orders a military strike against the prince who denied Connex's bid to gain exploratory rights in his country. The real-life examples I had gathered for my research paper seemed to mirror this story line, and hence I titled it, "The Real Syriana."

Now two and a half years later all of this has become a little clearer. The circumstantial evidence I have compiled and deciphered for this study precludes a coincidence; it appears that the defense and petroleum industries have executed a purposeful corporate connection. And though a new presidential administration has occupied the White House, corporate-state collusion remains an issue.

In January of 2008, on a flight from Seattle to Washington D.C., I was discussing my research with a gentleman seated beside me. This gentleman asked me "but how will you get the evidence to support your hypothesis, don't they cover these things up pretty well?" and to him I responded, "All of this information is out there for anyone with a curiosity to find, it's in plain view."

And he looked at me boldly and said, “Then maybe your dissertation is their confession.” Maybe it is.

Chapter 1.

Overview and Statement of the Problem

1.1 Introduction

Research on interlocking directorates began to emerge at the turn of the 20th century (Domhoff, 2005a). In 1913 U.S. Supreme Court Justice Louis Brandeis warned that interlocking directorates contained elements of danger and that competition could be threatened through these interlocks (Pennings, 1980). Despite Justice Brandeis' warning and corresponding emerging research, the 20th century bore witness to the intense infusion of this threat throughout the corporate directorship structure. While there was increasing discussion by pluralists during the mid-century that elites in advanced capitalist societies were becoming more "atomized," elite theorists in the 1950s and 1960s argued against competing notions that elites in advanced capitalist societies were becoming less integrated, and that despite disagreements, they remain highly intertwined (Mizuruchi & Koenig, 1985).¹

These interlocks may well have been strategically executed toward creating co-dependence between the petroleum industry and military defense

¹ Mizuruchi & Koenig refer to work pluralist work of Riesman, 1953; Dahl, 1961; and Rose, 1961; and to the elite theory work of Hunter 1953, 1959; Mills, 1956; and Domhoff, 1967, 1970.

contractors. Furthermore, some of these firms and directors have exhibited a sense of disregard for the legal guidelines for corporations as set by the state.

1.2 Purpose of Interlocks

R. Jack Richardson (1987) differentiates between two types of directorship interlocks: interorganizational interlocks, which perform an interorganizational function and are considered mechanisms of co-optation and control; and integrative interlocks, which are seen as “fulfilling integrative functions that transcend narrow corporate interests” (p. 367), and have the purpose of satisfying the need for “class consolidation or elite integration.” (Richardson, 1987, p. 367). Richardson (1987) finds that co-optive, or interorganization interlocks are far less frequent than integrative interlocks. This suggests that when interlocks are not in place for the purpose of corporate profitability, such as a financial executive seated on the board of an indebted non-financial company, they exist to fulfill an integrative function which “transcends narrow corporate interests” (Richardson, 1987, p. 384). However, Richardson may have overlooked industries that are not interdependent in theory, but function as such for all practical measures, such as the petroleum and defense industries.

An exploratory study by Johannes M. Pennings (1980) concludes that interlocks provide strategic advantages for corporations by granting greater access

to capital and environmental control. It is argued that these interlocks work to reduce economic and environmental uncertainty (Pennings, 1980; Pfeffer & Salancik, 1978). In analyzing the Pennings study, Richard H. Hall (2002) explains there are two basic ways to view this strategic edge: (1) a means to achieve a competitive advantage, or (2) as conspiratorial. Hall (2002) suggests that both views contain undeniable elements of truth.

In contemporary context, interlocking directorates are concerning on multiple fronts. Firstly, they embolden a ruling class by consolidating power of the major *Fortune 500* companies into fewer hands. Secondly, there is an aura of conspiracy when a tight web of connections exists between differing industries that capitalize on the same policy agendas. This dissertation seeks to address the clouded relationship between U.S. petroleum corporations and U.S. defense contractors through an inter-industrial interlocks matrix and an analysis of the circumstantial evidence that may give indications of the implications of this relationship.

The primary theoretical reasoning for why these interlocking directorates occur, and why these firms are so highly intertwined are that interlocks reduce industry uncertainty as a “profit-maximizing strategy” (Schoorman et al, 1981). Previous studies have argued that interlocking directorates are partially a result of causal relationships, such as regional proximity (Burris, 2005) or networking factors (Bearden & Mintz, 1985). Although these explanations are valid, as will

be shown in Chapter 4, when I compare interlocks between industries with both strong regional access and networking ties, such as between the hardware and software industries, I find significantly fewer interlocks than between corporations in the defense and petroleum industries.

1.3 Statement of Problem

Few attempts have been made toward examining the directorate link between two of the most globally lucrative industries, the petroleum and defense industries.² This research examines (1) the extent to which a fraction of the capitalist class has used interlocking corporate directorates to conjoin the global petroleum and global defense industries in the context of capital-to-capital and capital(s)-to-state relations (Ross and Trachte, 1990), and (2) these interlocks' larger political-economic implications.

The implications of this analysis in present-day context should be obvious: a petroleum-defense network could significantly influence American foreign policy in a manner that may be best suited for their interests instead of those of the country. While public support for the U.S.-led invasion of Iraq may have been

² Of the 2000 companies featured on the 2005 version of the "Forbes 2000" listing of largest corporations in the world, 90 companies were classified under "Oil and Gas Operations" – the most of any industry, while 19 were classified under "Aerospace and defense," with several other defense related contractors such as United Technologies and General Electric classified under "Conglomerates" because of the variety of their corporate ventures.

due to the fear that the country possessed weapons of mass destruction, another explanation is certainly plausible. Increased military spending is certainly favored by the defense industry, and the allocation of billions in defense monies for the U.S.-led invasion of Iraq appears to have been largely supported by the petroleum industry who viewed an American-controlled Iraq as an opportune means at tapping into the vast oil fields of this Persian Gulf nation (Perkins, 2004). Despite the seeming simplicity of motivation for such a possible collusion, little research has been done toward assessing mechanisms through which this strategic power alliance might operate. As will be discussed in Chapter 4, two of the most profitable corporations since the Iraq War began in 2003 actually form an interlock that violates antitrust law, Halliburton and ExxonMobil. Chapter 3 restates my research problem in greater detail.

The G.W. Bush administration has argued that the “stabilization” of petroleum-rich regions is of national interest, and therefore is a vital part of the national agenda, and in some instances this “stabilization” process involves the U.S. military (Weinstein, 2004). Thus, it is little surprise that petroleum companies, along with military contractors, have found this “stabilization” process to be a very lucrative venture. According to a joint report by the *Institute for Policy Studies* and *United for a Fair Economy* (2006), the average compensation for CEOs in the petroleum and defense industry in the Post 9/11 era

has increased dramatically in comparison with other industries and the S&P 500 average:

Since the ‘War on Terror’ began, the CEOs of the top 34 defense contractors enjoyed average pay levels that are double the amounts they received during the four years leading up to 9-11....defense CEO pay was 108 percent higher on average in 2005 compared to 2001....[and] since 9-11, the 34 defense CEOs in our sample have pocketed a combined total of \$984 million (IPS and UFE, 2006, p. 1).

Also benefiting greatly from the “War on Terror” are private security contractors (PSCs), such as Xe and DynCorp, which are mercenary groups hired by not only the U.S. government to conduct specific operations, but also utilized by petroleum corporations to provide protection and support in the security of the petroleum resources (Dao, 2004). Occidental Petroleum is one company featured in this study that has used PSCs to protect oil fields against dispossessed indigenous peoples attempting to reclaim their land. A Business & Human Rights Resource Centre (2007) report on private security and human rights excerpts a *Los Angeles Times* article describing the bombing of a Colombian village in which a PSC helped facilitate:

[In] the Bombing of Santo Domingo....11 adults and seven children died on Dec. 13, 1998..But according to Colombian military court records, the U.S. government helped initiate military operations around Santo Domingo that day, and two private American companies helped plan and support them...Occidental Petroleum, which runs an oil complex 30 miles north of Santo Domingo, provided crucial assistance to the operation. It supplied, directly or through contractors, troop transportation, planning facilities and fuel to Colombian military aircraft, including the helicopter crew accused of dropping the bomb. AirScan Inc., a private U.S. company owned by former Air Force commandos, helped plan and provided surveillance for the attack around Santo Domingo using a high-tech monitoring plan....Company employees even suggested targets to the Colombian helicopter crew that dropped the bomb....AirScan officials deny involvement in the incident, saying their plane was used only to survey Occidental's oil pipeline, and the company is not accused of any illegal activity (Los Angeles Times, 2002).

The use of PSCs in Iraq has been substantial. According a 2008 report published by the Congressional Research Service, “some 20 different PSCs, employing 10,000 people, are working directly for the U.S. government, primarily for DOD and the Department of State” (p. 8). The use of these PSCs has become a controversial issue, as Xe (known as Blackwater Worldwide prior to February 2009)³ has been accused of acting with reckless regard for civilian life in Iraq. One specific example is a September 2007 incident in which Xe guards opened fire on a civilian crowd in Iraq killing 17 people, which a probe later found was unprovoked (BBC News, 2007). The Xe guards involved in this incident could not be tried in Iraqi courts, however, because the U.S. government had negotiated immunity for U.S. civilian contractors from any Iraqi prosecution for crimes committed in Iraq. While this was reversed in December of 2008, the contractors involved in the incident still could not be prosecuted in Iraq because this incident occurred before the new agreement (CNN, 2009). As a result of the September 2007 incident, the interior ministry of Iraq elected in January of 2009, not to grant an operating license to Xe, ensuring that Xe can no longer operate inside of Iraq.

There are other examples of firms in the petroleum or defense industries showing a lack of humanitarian regard or sovereignty; among them, Chevron’s

³ Blackwater Worldwide was renamed, Xe, in February of 2009. According to the Guardian (2009), “Blackwater Worldwide is abandoning its tarnished brand name as it tries to shake a reputation battered by oft-criticised work in Iraq...the decision comes as part of an ongoing rebranding effort that grew more urgent following a September 2007 shooting in Iraq that left at least a dozen civilians dead.”

continual political interference in Nigeria (Goodman & Scahill, 1998), or the ExxonMobil backed plan to overthrow the ruling government in Equatorial Guinea using a mercenary force similar to Xe and DynCorp (Pelton, 2006) can be used to highlight the less than ethical means petroleum companies will go to procure resources. More recently it has become critical to examine the tactics petroleum firms use for acquiring these petroleum opportunities because of the “blowback” that the U.S. experienced on September 11th 2001 (Johnson, 2006). A *Washington Post* article reported the sharp drop of the U.S. in world opinion polls which is attributed to a few factors, namely the Iraq War and U.S. hypocrisy regarding U.N. participation and with other international bodies (Sullivan, 2007).

The *Executive Excess* report (IPS & UFI, 2006) documents the dramatic increase in the salaries of defense industry CEOs and how the two primary industries benefiting from the Iraq war are defense and petroleum. A growing concern among these types of corporate watchdog groups is over interlocking directorates becoming more prevalent in industries that capitalize off military-driven foreign policy (IPS & UFI, 2006). This is a continuation of the concerns associated with the “military-industrial complex” warned against by President Dwight D. Eisenhower in his farewell address in 1961. This military-industrial complex “refers to interorganizational patterns linking military with industry into a powerful set of organizations that can dominate other spheres of life” (Hall, 2002, p. 217). Harris argues that during George W. Bush’s (G.W. Bush) term in

office, this military-industrial complex became increasingly dominant (Harris, 2005), and when partnered with an industry (in this analysis, the petroleum industry), that requires the use of military or state participation to procure greater access to this vital resource. This presents the necessity of studying whether a capital-to-capital relationship toward mutual benefit between the petroleum and military-defense industries has been established.

1.4 Theoretical Significance⁴

Much of the theoretical significance of interlocking directorate research is what it indicates about capitalist class structure in the U.S. To the extent that a class exists, it is at least a class “in itself” (a class *an sich*, or an “objective” class) in that it is a collectivity distinguishable by its relation to means of production and labor performance. But a class is far more effective in pursuing its interests when its members identify with each other and intentionally act in a coordinated way – a class “for itself” (a class *für sich*, or a “subjective” class whose members are conscious of their common interests). Working classes often lack such a strong sense of class consciousness, rendering them weak in any effort to pursue their class interests, but capitalist classes tend to possess a substantial measure of class consciousness, facilitating their dominance [Wright, 1996; Marx 2008 (1847)].

⁴ Some of this discussion is adapted from a paper presented at the Southern Sociological Society Annual Meeting in Richmond, VA in April of 2008, (Haija et. al, 2008).

Directors of large corporations are a disproportionately capitalist lot, and they are directly engaged in the organized pursuit of profit for corporations, and thus in the pursuit of profit for those who own enough corporate stock and other forms of capital to make a comfortable living as a capitalist. But a capitalist sitting on boards of two or more corporations simultaneously helps to coordinate not just the capitalists with a particular interest in a particular capitalist firm, but the larger capitalist class in a society.

This coordination occurs simultaneously in corporations and state institutions. Domhoff (2005a, 2005b) explains that the problem with the corporate community becomes economic control, which translates to policy influence. As Domhoff (2005a) explains, “[c]entrality is a concept with two components, a large number of interlocks, plus the degree to which those interlocks are with other companies with a large number of interlocks.” According to Richard H. Hall (2002), “[i]t is imperative to note that interlocks are purposive” (p. 240). If collusion is occurring between the petroleum and defense industry we would expect to find indicators that would substantiate this, such as greater interlocks among top firms within these industries, cooperation between these two industries in attempting to influence policymaking, and mutually benefiting from specific governmental policies or actions. These potential indicators of collusion will be studied thoroughly and measured both quantitatively and qualitatively to make a

sound assessment as to whether these interlocks provide the foundation for a larger collusion at work between the U.S. petroleum and defense industries.

As stated previously, organizational theory posits that there is a necessity for interlocking directorates because of environmental uncertainty. As Richardson (1987) suggests, “corporation[s] only attempt to co-opt organizations that control scarce essential resources, and a firm will not pursue this strategy if it can achieve its aims by competition or bargaining” (p. 369). This dissertation seeks to reveal the extent that the U.S. defense and petroleum industries interlock and these interlocks larger political-economic implications. Thus, interlocks are not necessarily exercised as a means of controlling capital, but in this case, they could be a means of controlling policy as there are only a few reasons why defense and petroleum would see the need to create such strong interlocks between their industries.

There is one type of interlock examined in this study, a “direct interlock” (Hall and Tolbert, 2005). Specifically, the direct interlocks examined in this study are between petroleum and defense. However, another key component of this study will be to examine which board members from defense and petroleum firms held former government positions. Direct interlocking directorates occur when a person sits on the board of directors of separate organizations. This person creates a direct interlock between the organizations for which that person sits on. A government interlock is characterized by a sitting board member previously

holding a legislative, bureaucratic position, or military leadership post. The interlock is marked by a linkage between the corporate and policy realms because of their seemingly greater ability to provide access to policymakers. Indirect interlocks are not addressed in this study. An interlocking directorate is when “two organizations are linked by a path through one or more third organizations” (Pennings, 1980, p. 37). According to Pennings (1980) there is not sufficient evidence that indirect interlocks have the strength or relevance to work as a co-opting agent, and therefore this was the justification for omitting them from this study. Organizational researchers such as Domhoff have used indirect interlocks within their research, such as in his series, *Who Rules America?* (Domhoff, 2002). However, Domhoff’s purpose of incorporating indirect interlocks in his study was to show the far reachability of indirect interlocks, in instances where direct interlocks have only a limited reaching capacity. The purpose of this study is not to show the reachability of interlocks within any industry, but rather to demonstrate the significance of the strong corporate connection between the petroleum and defense industries and the possible implications on U.S. foreign policy when these two industries have their corporate interests overlap.

1.5 Chapter Contents

Chapter 2 outlines theoretical explanations of power, resource-dependency, interlocks, and corporate strategies undertaken to reduce uncertainty. Chapter 3 features two parts: (a) an explanation of the variables, units of analysis, scope conditions (population, geographical and time scope) in this study, along with my hypothesis, the operationalization of variables and; (b) the results of the data collection along with an explanation of these results. Chapter 4 features three parts (a) a discussion on the findings of interlocks between petroleum and defense, and their significance; (b) a discussion of the state v. capitalist debate, and the co-optation of the government by the petroleum and defense industries; (c) the outcome of these findings on policy and the economic implications. Chapter 5 features a summation of the arguments and findings in this dissertation, along with a conclusion and recommendations.

Chapter 2

Literature Review

The work of Talcott Parsons lends heavy credence to why interlocks exist. Parsons (1960) devised a model that showed how societies and social organizations must carry out specific functions to ensure their survival. This model, known largely by its acronym of the AGIL scheme, focuses on four functions necessary for survival: Adaptation, Goal attainment, Integration, and Latency. Of those four functions, adaptation is most important to this study. Adaptation refers specifically to how organizations adjust to meet their needs and necessities for their success and survival, and more specifically, it directs an organization to the approaches and strategies it must take to gain the resources necessary to best provide its service, product, or objective. An interlocking directorate exists precisely because of the necessary survival function of adaptation. Most organizational theorists agree that there will always be a degree of cohesion between organizations to allow for the control of environmental uncertainties (Aldrich, 1979; Pfeffer and Salancik, 1978; Pennings, 1980; Zald, 1970). Therefore, since adaptation is such a crucial form of an organization's survival, and interlocking directorates are considered a necessity because of environmental uncertainties, organizational performance could be gauged by the

level of interconnectedness a particular organization has with other organizations that alleviate some of their environmental uncertainties.⁵

2.1 Interorganizational Relationships

This study can most simply be explained as an examination of the implications and outcomes of one particular “interorganizational relationship.” Before I go further into this relationship, it is first necessary to define interorganizational relationships (IORs). There is a general agreement among organizational theorists that IORs have three basic forms which are drawn from the work on interorganizational role set analysis by Merton (1957), Evan (1966) and Caplow (1964). Hall and Tolbert (2005) differentiated between three forms of IORs: (a) dyadic interorganizational relationships; (b) interorganizational sets; and (c) interorganizational network. A dyadic relationship is the most frequently discussed form of an interorganizational relationship, and it is simply a relationship between two entities. According to Caplow (1964) and Evan (1966) dyadic relationships present researchers with the simplicity of being able to follow the effect, if any, on one entity when its dyadic partner forms a relationship

⁵ The discussion layout in the opening paragraph and the interorganizational relationships section of this literature are derived from the works of Hall, 2002; Hall and Tolbert, 2005; and Jaffee, 2001

with it.⁶ This is because once that relationship is formed, it allows for some assessment (when controlling for other variables) of the positive or adverse changes that have occurred in both of the firms that form the interlock. Further examination can allow us to assess whether those changes or effects were a result of that particular dyadic relationship, or simply a spurious relationship. Specifically these affects can have an impact on profitability, accessibility to other firms, and can bolster lobbying influence and access to policymakers (Fenno, 1978).

An interorganizational set is comprised of “a group of organizations formed in a temporary alliance for a limited purpose” (Aldrich, 1979, p. 281), where the central point is the focal agency and each specific dyadic relationship it has with other organizations. Generally the focal agency is one in which many different actors or organizations must rely on for their success and or survival. In a broad example, many organizations find it in their interests to interlock with a banking institution should they need favorable loan rates and access to capital, a strong relationship with a banking institution may assist them in this. If we have the hypothetical Acme Bank as the focal agency, then all other firms that form an interlock with Acme Bank are a part of this interorganizational set. Essentially an interorganizational set can be an expanded network of all actors or organizations with whom an entity has a relationship.

⁶ That is, after variables are controlled for in that relationship

An interorganizational network is a more expansive corporate network that is constructed “by finding the ties between all organizations in a population” (Aldrich, 1979, p. 281). Interorganizational networks have been studied by Domhoff (1967, 2002) whose work expands the focus to look at secondary interlocks and beyond and the networks that they form. Secondary interlocks can be described by the following example: Board Member 1 forms an interlock between Company A and Company B. Sitting on the board of Company B is Board Member 2 who also sits on the board of Company C. Thus, Board Member 2 forms an interlock between Company B and Company C. Board Member 1 does not sit on the board of Company C, but by sitting on the board of Company B with a board member of Company C, a secondary interlock is formed between Company A and Company C.

In this study, I am using two forms of interorganizational relationships; dyadic relationships between firms, and the interorganizational network among defense, petroleum, and government. Specifically, for relationships between firms in the petroleum and defense industries the method of analysis is looking at basic dyadic relationships. These dyadic relationships are analyzed firm-by-firm, which involves assessing each firm with each other individual firm, separately. For relationships between government and petroleum and government and defense, I use a qualitative version of an interorganizational set, with government as the centerpiece and how petroleum and defense, as separate industries, come

together to influence governmental policy as a whole, and ways in which government officials use these industries to protect their own interests or strengthen their financial interests after they have left public office.

R. Jack Richardson (1987) posits that “many analysts have argued that some forms of intercorporate relationship can significantly impede the effective operation of the market, increase corporate concentration, and give rise to concentrations of economic power” (p. 367).⁷ While some argue that the presence of interlocks is simply an exercise in the corporate cohesive “good-old boys” networks among a community that are heavily networked through their personal relationships (Strauss, 2002), Taylor explains (2000) that “members of this “network” attempt to shield themselves from unqualified individuals by undertaking projects only infrequently with unproven nonmember... [and] because a successful recruitment creates a public good for network members, far too little recruiting is performed in equilibrium” (p. 886).

There are two sides to the discussion of corporate cohesion. Pluralists (Dahl, 1961; Polsby, 1980) and structural Marxists (Offe, 1974; Poulantzas, 1975) “have argued that individual corporations are too concerned with their own particular interests to constitute an effective unified force. Elite theorists (Mills, 1956) and instrumental Marxists (Miliband, 1969) have argued that the business

⁷ Richardson cites the work of Galbraith, 1971; Pfeffer and Salancik, 1978; Mintz and Schwartz, 1985, following this passage.

community possesses unifying mechanisms that enable it to present itself as a cohesive entity” (Domhoff, 1987, p. 204).⁸

The purpose of this study is not to assess whether this need to maintain environmental certainty is present, that has already been clearly established, but why certain industries be non-intuitively interlocked with other industries and what specific motives these interlocks may reveal.

Since we can assume that interlocks occur purposely, and are not coincidental, then some interlocks can lead us to understand how some industries affect others. Thus, the argument is if petroleum and defense have a standardized interlock quotient greater than the mean quotient across all industries, there must be a tactical reason for this interlock. As the findings in Chapter 4 will reveal, there are strong interlocks between industries that would seem coincidental, however, in the case of petroleum and defense, both industries rely heavily on U.S. policy and governance for their success and prosperity, thus, a stronger than normal interlock may indicate something more than coincidence.

What is oft overlooked is that interlocks come at a price, namely the loss of independence, and therefore we must assume that they are made purposively. As Hall and Tolbert (2005) explain:

⁸ This quotation is derived from G. William Domhoff’s (2002) book, “Who Rules America”

At the societal level, there has been a long-standing concern with the actual and potential power of the “military-industrial complex.” This refers to interorganizational patterns linking the military with industry into a powerful set of organizations through interlocking boards of directors have become the focus of intense scrutiny by political and organizational sociologists (p. 189).

This study is more than a continuation of previous work on the military-industrial complex, but rather an amendment to the concept itself. I argue that an additional industry, the petroleum industry, has been added to the network of defense organizations to form a new complex. This new “complex” will be referred to as the “defense-petroleum-policy” complex. I propose that the military-industrial complex has coalesced with government through the use of board members with strong government credentials to potentially shape foreign policy and intervention in a way that benefits this new “complex.”

Throughout the 2000s research began to emerge on the impacts of deindustrialization of the manufacturing sector in U.S. that occurred between the 1970s and 1990s (Berger, 2007; Brady and Wallace, 2001; Johnson 2002). This rapid period of deindustrialization devastated industrial towns affected by the widespread factory closures and in the process, and moved the U.S. from a

manufacturing-based economy to a mostly service and information-based economy [Bell, 1976 (1973)].

With the industrial sector in the U.S. severely languishing, I propose that the “military-industrial” complex, as elucidated by Dwight Eisenhower in his farewell address, is no longer applicable to the reality of what exists in the U.S. in this first decade of the 21st Century. Rather, this concept should be replaced by a modified one, the “defense-petroleum-policy” complex. During the Eisenhower period the defense manufacturing and service sector was almost exclusively controlled by the state. With the emergence of the private defense sector, the state has become reliant upon these defense contractors to provide weaponry, services, and even troops, which were once only provided by the state. Thus, the “military” component of the military-industrial complex has been replaced by the “defense” component, denoting the shift to from the military component to a private defense sector.

It is argued that the petroleum entity within this new proposed complex of “defense-petroleum-policy” takes ultimate primacy, overrunning government and policy and becoming “king” in the U.S. economy and the primary focus of U.S. foreign policy (Pfeifer, 2007). The potential for this has been long coming, as Peter R. Odell (1979) writes, “[the] organization of a large part of the international oil industry has, for a long time, been part and parcel of the U.S.A.’s world-wide interests in which the investments of U.S. private oil companies in

virtually every country of the non-communist world are linked to and supported by official U.S. government policy” (p. 25).

More recent arguments in support of the notion that the U.S. government protects the interests of the U.S. petroleum industry is the hands-off approach Congress took toward oil speculators when it was becoming evident that they were inflating crude petroleum prices on the open market, while *supermajors* were posting unprecedented consecutive quarterly profit earnings and the U.S. economy entered into an official recession (Reuters, 2008). The success of the petroleum industry has been in part through the leveraging of board members with previous legislative or lawmaking positions, as these policymakers have been able to distort U.S. public perceptions on the intentions and necessities of U.S. military inventions to maintain the appearance of “defending freedom” and “the spread of democracy.” I suggest, and the evidence will corroborate that recent U.S. military actions have more to do with bolstering U.S. military power and the acquisition the precious natural resource of petroleum than they do with nation-building and the spread of U.S. defined democracy.

2.2 Resource-Dependence Theory

Interlocks are strategically important because they provide access to resources and can influence decisions corporations make that can help to reduce

environmental uncertainties for organizations (Burt, Christman, and Kilburn, 1980; Burt, 1980). With the environmental uncertainties making it harder for corporations to compete in a rapidly changing globalized economy, most organizations will not sit idle while being susceptible to the uncertainties of this changing environment; instead, they will opt to “attempt to manipulate the environment to their own advantage” (Hall and Tolbert, 2005, p. 212). This argument is rooted in the premise that organizations cannot solely provide all of the resources or processes necessary for their prosperity, thus they must look for external agents to fill the voids left in areas that the organization alone cannot fill. Aldrich and Pfeffer (1976) state that “[organizations] manage their environments as well as their organizations, and the former activity may be as important, or even more important, than the latter” (p. 83). An organization has to adapt its internal approach to external factors, because external environmental factors will not adapt to the organization.

The purpose of this study is not to attack the practice of interlocking directorates. Under capitalism, one would expect interlocking directorates to exist because just as human beings need social networks to thrive, so do corporations. According to Richard M. Emerson’s (1962) theory of power-dependence, relations that exist between organizations and actors generally “entail *ties of mutual dependence* between the parties.” This logic stems from the resource-dependency theory (Aldrich and Pfeffer, 1976; Pfeffer and Salancik, 1978) which

argues that because corporations are susceptible to external factors outside of their control, creating relationships that could reduce the external environmental uncertainty to some degree is strategically necessary. As the resource-dependence theory goes, actors or organizations will form relationships based on a mutual dependence for resources or services that individually they are unable to procure or fulfill, respectively. However, a competing notion against the theory that interlocking directorates are utilized for managing competitive uncertainty is the elite class theory of C. Wright Mills (1956). This theory holds that board members use interlocks to advance their class interests. This is strongly aligned with the class conflict elucidated by Marx and Engels in *The Communist Manifesto* (1998 [1848]).

The resource-dependence theory also states that organizations will manipulate their environment to suit their interests if the opportunity-structure is present to do so. This manipulation does not always occur in a network either; occasionally organizations will manipulate their environment to their advantage unilaterally. This approach stems from *environmental determinism* (Perrow, 1986), which posits that factors extraneous to an organization can determine the fate of an organization. A key example of this extra-organizational influence within the petroleum industry occurred in the late 1990s and early 2000s. During the late 1990s market petroleum prices were experiencing severe deflation and with an abundance of oil firms, oil executives felt that the economies of scale

within the industry were suffering (PBS, 1998). The first to respond to these environmental concerns was British Petroleum (B.P.) when it purchased U.S.-based Amoco in 1998, and gained a wider stake in the U.S. market (AP, 1998). In response to this, in 1999 both Total S.A. and Exxon initiated mergers. Total S.A. acquired PetroFina, and Exxon acquired Mobil (TOTAL, 1999). The Exxon and Mobil merger formed ExxonMobil, which is currently the largest integrated-energy firm in the world (Brice, 2008). The merger of these aforementioned companies would lead Chevron to respond to the changing petroleum environment by acquiring Texaco to form the ChevronTexaco Corporation in 2001.⁹ Finally, in 2002 Conoco Inc. and Phillips Petroleum Company merged to form ConocoPhillips, the sixth and final company of what make up the *supermajors*.¹⁰ The *supermajors* refer the worlds six-largest, privately held oil companies. The mergers that occurred within this four-year period to form six *supermajors* occurred because of a few salient external environmental factors:

1. Deflating petroleum prices
2. Abundance of competition pushing prices down

⁹ In 2005 the ChevronTexaco moniker was dropped, in favor of, “Chevron Corporation” as the official name of the company.

¹⁰ The *supermajors* was a term coined following the mergers of what were known as domestic and international “majors,” which was a previous term used in the 1960s thru the 1990s. See Sampson, A. (1975). *The Seven Sisters: The Great Oil Companies and the World They Shaped*. New York: Bantam Books.

3. The mergers that followed the acquisition of Amoco by BP were impacted by the strength BP gained in the global oil market

None of these factors were internal to the organizations that they impacted, and thus, the reduction of uncertainty came in a form far more drastic than interlocks; it actually resulted in mergers and acquisitions which would allow these now six *supermajors* to have greater control over price volatility and oil output into the market.

More importantly, this example demonstrates how organizations must sometimes take extreme measures when their extraneous environment becomes too volatile or their competition begins gaining too much control over the market. In this example of the evolution of the six *supermajors*, environmental uncertainties and threats became too great to simply apply a few interlocks to gain a better control over the market share, especially when B.P. set an initial precedent with their acquisition of Amoco. As C. Wright Mills (1956) wrote:

[s]uch consolidation of the corporate world is underlined by the fact that within it there is an elaborate network of interlocking directorships. “Interlocking Directorate” is no mere phrase: it points to a solid feature of the facts of business life, and to a sociological anchor of the community of interest, the unification of

outlook and policy, that prevails among the propertied class. Any detailed analysis of any major piece of business comes upon this fact, especially when business involves politics. As a minimum inference, it must be said that such arrangements permit an interchange of views in a convenient and more or less formal way among those who share the interests of the corporate rich. In fact, if there were not such overlapping directorships, we should suspect the existence of less formal, although quite adequate, channels of contact (p. 123).

Breaking down the passage by Mills (1956), it can be inferred that most interlocking directorates do not occur by mere chance, but rather have a strategic motive for their purpose (Heracleous and Murray, 2005). Further, Mills identifies an interlock as a “unification of outlook and policy,” thus the interlock between petroleum and defense shares some particular interest or set of interests in policy and outlook. Mills continues by arguing that when business involves politics, this unification is further intensified and becomes more applicable to the strategy of the interlock.

Interlocks can also occur because of a power disparity, such as a large corporation that wields more power than another, a less-power organization and are able to exploit this disparity and demand that they sit on the board of this less-

powerful organization because they see it in their interest as a way to reduce their environmental uncertainty (Aldrich, 1979). While this practice does occur, if the interlock is clearly only in the interest of one party in the interlock, the relationship may be heavily resisted. As Blau (1964) suggests, while many resource-dependent relationships exist out of necessity or interdependence, some organizations opt not to be formed because of the drawbacks or negatives that may come with a particular linkage with another organization or actor, as some potential linkages have costs that outweigh the benefits. Generally this occurs when a relationship appears that it will be mostly one-sided, where one party is benefiting more, while another party is incurring more of the cost of this relationship. In this instance, the party that is incurring cost will generally find it in their best interest not to form the relationship.

A further drawback of interlocks is the loss of independence. Because the actor or organization has agreed to this relationship, one can assume it must be perceived as being beneficial to both parties. Thus, both parties must implicitly agree not to work against each others' interest, even if that means that they cannot fully capitalize on an opportunity presented to them if that opportunity is contradictory to the interests of their partner. Therefore, the ability to act entirely in their own interests is lost and decisions must be made with consideration to the relationships within their network. This is a formidable risk that organizations

take when entering an interlock or partnership, thus, corporations must consider potential conflicts of interest before they interlock.

External environmental factors are what shape the approach and policies internally within an organization. Organizations recognize that external factors may have a greater impact on their success than their own internal workings, and resourceful executives will attempt to engage and absorb those elements or entities that can help reduce the impact of those environmental factors. One primary way this is done is through interlocks with firms or industries that have a direct impact on their organizations' access to resources or cost of operation, such as an airline forming an interlock with a petroleum firm. R. Jack Richardson (1987) conducted a study showing that when an interlock was broken between two industries, generally it was replaced by an interlock with a corporation within the same industry as the corporation with which the link was broken. This further substantiates the proposition that organizations form interlocks out of strategy with other organizations that they deem will have a direct impact on their environment.

From these examples it can be argued that a shortcoming of resource-dependency theory is its absence of the state within the discussion of environmental influences and resource dependence. The state exercises a substantial control over the organizational structure in the U.S. and one strategy organizations undertake in minimizing the impact of environmental factors is

through manipulating laws, policies, and governmental regulations that can affect the prosperity of a company. How this is accomplished will be expanded on in the state v. the capitalist class section of this chapter.

If one considers the argument of resource-dependence theory and its relative ignoring of the state as a shortcoming, resource-dependence theory could be strengthened by a broader consideration of power. In short, the most essential aspect to the survival of an organization is power, and what is it that makes an organizational structure powerful? Mann (1988) argues that the answer depends on the actor, along with time and space factors. Thus, I ask the specific question, “Which option gives capitalist organizations the most power?” To answer this, I will first consider power more generally and how it relates to organizations.

2.3 Forms of Power

To begin this section, it is necessary to explain the concept of power. According to Max Weber [1968 (1922)] power is the ability of one to impose their will over the will of others. This definition is one of the most commonly accepted characterizations of power and Richard M. Emerson developed an elaborated explanation and concept of Weber’s power definition in his power-dependence theory, making explicit that power is a property of relationship, not a single actor. Emerson (1962) explains a scenario involving two actors, (A) and

(B) who form a relationship, such as an interlock, and the power that each entity possesses within this relationship:

A depends upon B if he aspires to goals or gratifications whose achievement is facilitated by appropriate actions on B's part. By virtue of mutual dependency, it is more or less imperative to each party that he be able to control or influence the other's conduct. At the same time, these ties of mutual dependence imply that each party is in a position, to some degree, to grant or deny, facilitate or hinder, the other's gratification. (Emerson, 1962, p. 3)

Emerson continues by explaining that “*power resides implicitly in the other's dependency*” and as was explained in the previous section on resource-dependence theory, Emerson explains that the costs or benefits associated with a dependency or relationship between two actors must be weighed against the costs or benefits of “alternative” relationships that may become closed as a result of this respective relationship. He describes dependence specifically by the equation (Dba), which Emerson (1962) explains is:

The dependence of actor A upon actor B is (1) directly proportional to A's *motivational investment* in goals mediated by

B, and (2) inversely proportional to the *availability* of those goals to A outside of the A-B relation (p. 3).

Furthermore, Emerson explains that the “the dependence of one party provides the basis for the power of the other, that power must be defined as a potential influence” (p. 3). Emerson defines the concept of power by the equation, (P_{ab}) , which is the power of actor A over actor B is the amount of resistance on the part of B which can be potentially overcome by A. Emerson further asserts that dependence and power are equal, $(P_{ab}=D_{ba})$ because, “the power of A over B is equal to, and based upon, the dependence of B upon A. [Thus], recognizing the reciprocity of social relations, a power dependence relation can be represented as a pair of equations: $P_{ab}=D_{ba}$, [and] $P_{ba}=D_{ab}$ ” (p. 4).

This definition may lend some explanation as to why Citigroup, the largest financial services firm in the world, has such an impressive reachability of interlocks. Banking institutions have the ability to impose power because they hold resources that are paramount to the success of any company. According to Emerson’s definition of power and dependency, these banking institutions likely control the balance of power within their relationships. This is because banking institutions control the most basic commodity in capitalism: money. Money drives capitalism because every organization is susceptible to borrowing during times of expansion, hardship, or development.

Domhoff (2005) points out that “Ford Motors and Yum! Brands have interlocks with both Citigroup and J.P. Morgan Chase, which of course means there are organizational links between those two large banks.” Banking institutions tend to run the gamut in regards to which type of companies they will have interlocks with and this is because every company, from America’s largest automotive maker to a snack producer, has a vested interest in interlocking with a bank. We know that these interlocks are purposeful and occur to reduce environmental uncertainty and gain access to necessary resources (Hall, 2002; Haunschild and Miner, 1997). Thus, from this example, it can be determined that in most interlocks there is a tactical and calculated decision to form that particular relationship. Pairs of industries that have a strong degree of connectedness are generally those which affect one another’s environmental uncertainties, and thus the strong degree of connectedness is purposeful. However, when we come across two industries such as oil and defense, and notice their significant degree of interlock despite the lack of impact on one another environmental uncertainties, it poses the question as to whether there is the same calculated and tactical approach to form a strong relationship between these two industries as there are between others? Moreover, if such a tactical approach can be found, why is this the case?

At face value there is nothing that seems to be wrong or illegal with the practice of forming organizational networks, as long as interlocks do not occur within competing firms. The creation of networks in the interest of stability is

something that occurs universally on the individual level. Human beings create networks with other human beings for a variety of reasons. Some networks exist for survival, some exist for trade and bartering, some exist for enjoyment. Whatever the reason for these networks, humans long found that creating partnerships or connections with other human beings is usually in their best interest and provides services and outcomes that could not be attained or achieved without these networks. Therefore, we should expect to see networks on the organizational level; largely they develop from basic human interaction and the search for fulfilling needs and interests through networks. As Ferdinand Tonnies [2002, (1887)] explained in his conception of the *gemeinschaft* society as well as Emile Durkheim's [1997(1893)] notion of mechanical solidarity, when networks between individuals are strong and personal, the outcome for the individual is more positive. Applying these concepts at an organizational level, when relationships between organizations are strong and have mutual benefit, such as those that exist in an interlock or a network, the benefit to the organization should then also yield a more positive outcome.

Domhoff (2005) expands his argument on power distribution by directing his argument toward Michael Mann's (1986) theory of power. Domhoff (2005) explains organizational interlocks in the context of Mann's four-network set: ideological, economic, military, and political power sets, which Mann describes as "overlapping and intersecting sociospatial networks of power" (Mann, 1986, p.

1).¹¹ The basis of this power structure, according to Domhoff (2005) and Mann (1986) is that each of these separate entities “presupposes” the other, meaning that while they are separate in their function, and some may be more important than others depending on several factors such as time and place, they are unified because they support each other and perpetuate each other’s existence. The relevance to this study can be explained in the following passage by Domhoff (2005):

One kind of organizational power can be turned into any one of the others. Economic power can be turned into political power.

Religious power can generate military power. Military power can conquer political power. And so on. In that sense, power is like the idea of “energy” in the natural sciences: it cannot be reduced to one primary form. Thus, there can be no “ultimate primacy” in the “mode of production” or “the normative system” or “the state,” as in rival theories.

This relates to the work of C. Wright Mills (1956) and Weber (1968) who view power as ubiquitous to social relations, with the amount of power held by a person or organization capable of being increased, reduced, or transferred, but

¹¹ Originally cited in Domhoff, 2005.

never destroyed. Analogous to this is the theoretical explanation of energy within physics which states that energy cannot be created nor destroyed, only transferred or transformed. Thus, power always exists and certain forms of power can be conquered and by conquering a specific power-set, if the notion is accepted that power is zero-sum, then that power that is lost by one power-set will invariably get absorbed by another power-set.

An example of power being absorbed by another power-set is New York City (NYC) Mayor and billionaire, Michael Bloomberg, who was able to transition his significant economic power into political power when he became the Mayor of NYC in 2001 (Left, 2001). Bloomberg was initially known to most for his billion-dollar NYC-headquartered global corporation, Bloomberg L.P., a financial software services firm. Benefiting from his well-known name and fortune, Bloomberg spent about \$50 million of his own money, narrowly winning the NYC mayoral election in 2001 (Left, 2001), despite having no previous political experience.

From Mills (1956) and Weber's (1968) elucidations of power and its diffusions it could be assumed that if Bloomberg did not have the economic power, his candidacy for New York mayor likely would have been a futile attempt at entering public office. Bloomberg was able to use his power in one arena, economic, to procure power in another arena, political. Importantly, however, is that Bloomberg did not necessarily relinquish any of his economic power to gain

political power. Rather, he used his economic power and reputation to gain more power, this in the political realm, and thus, take power from another entity or actor.

Just as these organizational power networks can work to bolster one another, they can also the demise of one another. The 2008 economic meltdown in the U.S. which financial institutions collapsed resulted in some political actors, largely Republicans, to lose support among their constituents because the general populace blamed the party in power for causing this economic calamity (CNN, 2008).¹² With Republican Party losing control of the White House and both the Senate and the Congress in 2008 and 2006, respectively, this may potentially lead to a decreased primacy of the military organization while Democrats hold a majority. According to Benjamin O. Fordham (2007), since the mid-1960s Republican presidential administrations have tended to favor increased military spending and use of the military, and have afforded it more power than Democratic presidential administrations in this modern era. Thus, some organizational power breakdowns can affect other organizational powers in an adverse way.

While defense contractors may favor Republican administrations because of their munificent military spending, looking at campaign contributions in the 2004 and 2006 election cycles, it appears that the petroleum industry also heavily

¹² This is according to a CNN/Opinion Research Corp Poll which suggested that Americans blame Republicans by a 2-to-1 margin for the 2008 financial crisis.

favors Republican candidates as well. According to the *Center for Responsive Politics*, campaign donations, from both individuals and political action committees, for political candidates from the petroleum industry favored Republicans substantially, with 80 percent of the \$26 million donated in 2004, and 82 percent of the \$20.2 million donated in 2006 going to the Republican candidates (Center for Responsive Politics, 2009). Campaign donations from the defense industry were not quite so lopsided, but significantly favored Republican candidates as well. In 2004, 60% of the \$8.1 million in campaign contributions from the defense industry went to Republican candidates, while 58% of the \$7 million went to Republicans in 2006 (Center for Responsive Politics, 2009). Research has shown that there is a direct correlation between big donor campaign contributions and voting and legislative behaviors in favor of the donor's interests. (Jones and Keiser, 1987; Neustadl, 1990; Gordon, 2005). The disparity in campaign contributions from the petroleum and defense industries for Republicans over the Democrats indicates that these industries may view the Republicans a stronger ally who works in their interests more readily than Democrats. This is an example of the petroleum and defense industries exploiting a political power network to gain greater control over environmental uncertainties, such as those from the political power set.

Mann (1986) emphasizes how separate power networks are able to play off one another or come together in tertiary relationships for particular time and

space necessities. Three of the four forms of power discussed by Mann (1986), economic, military, and political, compel an individual to participate, regardless of whether it is against his or her own interests. As Marx [1959, (1932)] elucidated in his explanation of the alienation of the worker within capitalism, these forms of power require the worker to participate or become among the *lumpenproletariat*. By losing control over their work, the worker inevitably begins to lose control over their life and that control is taken over by those that control economic, military, and political power, and thus, there is an obligation to participate and not resist the power structure as a matter of survival. What is further important to note is that no power takes primacy over the other, but which form of power, whether ideological, economic, military or political are more powerful at a given moment varies within time and space considerations.

In his tripartite model of power, Hawdon (2005) explains that holding economic, political, or military power over a person or group is fleeting because this imposition of power is not predicated on an actual adoption of ideals, but instead is participated in because it is obligatory.¹³ Conversely, ideological power, such as that based on religious beliefs, necessitates a type of “divine” authority for which morality and guilt are ever-present. These features can dictate action and supreme loyalty. While ideological power is not necessarily the most powerful of

¹³ This concept of the tripartite model was discussed in-depth in Professor James Hawdon’s “SOC 5984, SS: Crime and Community” course at Virginia Polytechnic Institute and state University in the Fall of 2005 semester.

the four types of power, it is the most enduring. It is important to mention that just because ideological power is seemingly voluntary, it is actually coercive. Just as Weber [1968 (1992)] explicated, all exercises in power are coercive because it involves the imposition of the will from one actor or institution over the will of another actor or organization.

As Domhoff (2005) explains that “since the four networks are not encompassed within a larger social framework or any one physical territory, there is no need for concepts such as a “bounded society” or a “social system.” Since there is no “totality,” there can be no “subsystems,” “levels,” or “dimensions.” Instead, social organization must be understood in terms of the four overlapping networks of power that run off in different directions and have varying extensions in physical space. Essentially power cannot be explained in sub-systematic terms because there are no levels of power. Its form can be constantly changing and any one of the four-modes of power can overtake power from the others and be the dominate mode of power in that particular time and space (Domhoff, 2005). It is therefore important to be aware that the four-network theory of power transcends organizational studies and extends into competing with Durkheim’s [1997(1893)] “agency v. structure” debate.¹⁴ This, Domhoff suggests, “[is] because the four-networks have different and constantly changing boundaries that vary with the

¹⁴ This concept was discussed and referenced in Domhoff, 2005.

invention of new technologies and the emergence of new organizational forms...”
(Domhoff, 2005).

In sum, while the four forms of power overlap, none take primacy, although one may at a given moment. And while interlocks can often come at a cost, such as the loss of independence, or the benefits becoming largely favorable to only one actor, they ultimately give the organization more power by connecting economic, military, ideological, and political power. Thus, assuming interlocks are beneficial and entered into with intent and purpose; because if they are not, then the interlock does not perform its necessary function.

Thus, to understand why corporations in non-obviously linked industries and the government would create interlocks, it must be understood how all parties involved benefit. One means of gaining this understanding is to consider the power relations that benefit corporate actors and political actors. Hawdon (1996) uses this technique to explain why intergovernmental organizations (IGOs) proliferated in the 20th century. This strategy should be fruitful in this study because IGOs and interlocks are parallel in two ways: (1) both have ties and access to government, but work independently of it; (2) both involve the behavior of organizations; (3) both are strategies that organizations pursue to reduce environmental uncertainty; and (4) both simultaneously increase the power of those involved while also limiting it. Therefore, considering the power relations involved in interlocks should be a useful analytic strategy. We now turn to a

consideration of the actors involved in a defense-petroleum-policy interlock and what type of power relations each prefer

2.4 Capitalism and the State

Prima facie, the state and the capitalist class appear to be diametric opposites. Contrary to Marx [1999 (1887)] and Miliband (1969), the state and the capitalist class do not necessarily work together. Mann (1986) suggests within his source of power debate that the state is itself an autonomous entity, while Poulantzas (1975) argued that although the capitalist class facilitates the perpetuation and success of the state through support of its legitimacy, this is because it is in the interests of the capitalist class to have a functional state. In accordance with Weber's explanation of the three forms of authority, traditional, charismatic, and legal-rational legitimacy, only legal-rational legitimacy applies to the state (Poggi, 1978). Jessop (2002) follows these arguments with his proposition that capitalism itself is a social relation as part of a larger system within the state.

Hawdon (1996) makes an important contribution to this debate between capitalists and the state when he argues that capitalists may view the state as an adversary because the state attempts to regulate the corporate structure through legalities and the state imposes taxes on capitalists. When capitalists are major

holders of a necessary resource, they may form an agreement with other. If not regulated by the state, elements within the capitalists may attempt to executive a monopoly over this resource in an effort to increases the value of this resource. The state makes mergers and acquisitions lengthy processes for the capitalist class, and if the resources of fractions of the capitalist class become too abundant or monopolized, the state will force the break up of the corporation and require that these fragments of the former company be sold, as it did when the United States Supreme Court broke up Standard Oil in 1911 (Yergin, 1993).

The state regulates the competition strategies of the capitalist class as well. If the capitalist class executes predatory pricing strategies in an effort to eliminate competition, then the state will intervene and penalize those in the capitalist class guilty of this activity. So, strategies that may prosper the capitalist class are regulated by the state.

Furthermore, the state limits interaction that the capitalist class can have or measures that they can take in order to preserve or prosper their wealth. As an example, the capitalist class cannot wage war on a nation, doing so would be a threat to their legitimacy, even if waging war on a nation and acquiring its resources is necessary for their continued prosperity. Thus, the capitalist class needs the state to wage its battles, because as Weber (1919) elucidated, the state holds the monopoly on the legitimate use of physical force.

Most importantly, while the capitalist class benefits from decentralized power relations, the state benefits from centralized power relations (Hawdon, 1996). The capitalist class benefits from decentralized power relations because a decentralized system extends markets by weakening nationalistic trade barriers. The state, however, benefits from centralized systems of power because its power is intensive and limited to a specific territory (see Hawdon 1996; also see Mann 1986). Thus, the state and the capitalist class are in a constant struggle because they are organizational rivals.

Yet, while the state and the capitalist class are organizational rivals, they are rivals that need each other. From the state's perspective, the reason they need capitalist class is that the state must legitimate itself, but the state does not produce anything directly (Mann 1986; Hawdon 1996). The state must acquire economic resources from others, and this is accomplished through either taxing capitalist production or through military conquest. Conquest is possible source of revenue for the state. The state gains legitimacy in part from its monopoly over the use of force and control of the military, but if the state relied solely on itself to advance its military and battle technologies and capabilities, the state runs the risk of suffering delegitimation and the loss of military power. Kennedy (1987) argues that Europe ascended to hegemony because no state or territory had a monopoly over military power and thus, each state and territory continued to make advances in military technology. This Kennedy believed is because when the state is not the

only producer of weaponry, the opportunity for technological advancements is given to the private sector, where improvements can progress move rapidly. Since in the other power centers of the 15th century world, strong states monopolized military technology and this monopoly limited advances in weaponry, Europeans quickly gained an advantage over peoples from other lands. It was this advantage, at least according to Kennedy (1987) that led to the European powers colonizing much of the world. The same state-capitalism relationship holds true in the U.S. today, as technology improves with more competition in the defense industry resulting in benefits to the state and further legitimation for the state because of its military strength and advances. As Kennedy (1987) explains:

...[the] explosion in new technological and scientific developments since the late nineteenth century inevitably drove defense manufacturers into a relationship with government which deviated from the “free market” norms, [and] the present pace of this increase is an alarming one...[the] trend toward ever fewer weapons at an even higher cost. While much of this is of course due to the growing and inescapable sophistication of weapons...it is also caused by the continuing array of arms races on land, on and under the ocean, in the air, and in space (p. 443).

As Rothe writes, “[t]he intersection of state and corporate interests during times of war is a fundamental part of the war-making process. Every Capitalist country must rely on private-sector production to produce the weapons of war” (p. 215). In addition, the state, if it purports to be a democracy, cannot wage war without the support of some of its populace or it threatens its legitimacy as the will of the people. Consequently, while the conquest of others is a possible source of resources for the state, this strategy comes at a cost and places the state in a vulnerable position relative to capitalists. Thus, the state must raise revenues using their other strategy: taxes. This strategy, however, also puts the state in a dependent position with respect to capitalists. As Jessop (2002) explains, “[t]he ecological dominance of capitalism over modern states is mediated in part through state managers’ calculations about the likely impact of their decisions on alterations in the money markets and fisco-financial system on which state revenues depend” (p. 25). Thus, the state must look out for the interests of the capitalist class because they are the conduit through which the state generates revenue. Moreover, it is through the spending of that revenue to address income inequalities and intercept economic dysfunction that the state maintains legitimacy (Habermas, 1973).

Hawdon (1996) references Mann (1988), when he outlines the functions of the state: “(1) the maintenance of internal order; (2) military defense and aggression; (3) the maintenance of communication infrastructures (roads, rivers,

message systems, coinage, weights and measures, marketing arrangements, and; (4) economic redistribution. Thus, the state cannot carry out any of these functions without the tax revenues and resources brought to it from the capitalist class.

Without tax revenues from the capitalist class, the state will suffer an economic crisis, which in turn results in a legitimation crisis for the state. As Habermas (1975) explains, “because the economic crisis has been intercepted and transformed into a systematic overloading of the public budget if governmental, it has to put off the mantle of a natural fate of society. If governmental management fails, it lags behind programmatic demands *that it has placed on itself*. The penalty for this failure is withdrawal of legitimation” (p. 69). The state must produce something of perceived value to gain some sort of legitimacy and if that is not produced, then the state must enter into another form of legitimation. The state will continually experience insecurities in regards to its legitimacy among its populace and there is a constant need to reinforce its perceived legitimacy. In Poggi’s (1978) words, “[a]s a system of rule, the state confronts the problem of legitimacy. That is, it wants its citizens to comply with its authority not from the inertia of unreasoning routine or the utilitarian calculation of personal advantage, but from the conviction that compliance is right” (p. 101). This argument, that compliance out of conviction is the state’s ultimate goal, is consistent with the proposition of ideological power being the most enduring, and therefore the most

highly sought (Hawdon, 2005). It also demonstrates that the state needs their capitalist rivals.

The capitalist class, however, also needs the state, for the state provides specific services to the capitalist class that it cannot provide for itself. Specifically, the state secures trade routes and provides piracy protections for the capitalist class (Kennedy, 1987). The state acts to secure credit and loans for the capitalist class and enforces prosecution when repayments are not made. The state spends tax revenues that end up in the hands of consumers which in turn result in consumer purchases that benefit the capitalist class (Hawdon, 1996). The state, particularly a powerful state, with the ability to impose its will over the will of other states, can deregulate the economies of foreign countries which allow the capitalist class access to an economy that was once restricted. This economic strategy, known as neoliberalism, was a common theme in the G.W. Bush administration as a condition for developing nations to secure loans from the U.S. dominated World Bank, under what are known as structural adjustment programs (Juhasz, 2006). Structural adjustment programs are a passive and less obtrusive measure that the state may use at gaining access to resources for the capitalist class. Finally, and most importantly, the state provides the legitimating ideology that keeps the masses of exploited people from overthrowing their exploiters, the capitalist class.

During the G.W. Bush administration it can be argued that the state championed the legitimating ideology of patriotism, which can be seen as an attempt to gain one of the power types described in Mann's (1986) power-set, specifically the ideological power type. The use of patriotism by the state is a form of "cultural leadership" as described by Gramsci [1996, (1957)] in which the state utilizes an ideological notion to coerce its populace to act in the interests of the state and the capitalist class. Through this hegemonic ideology, Gramsci [1996, 1957]) explains, the state is afforded legitimacy and compliance from its populace, and, in turn, the capitalist system is protected and willingly participated in by those whom it exploits.

Patriotism is important to the capitalist class in other ways as well. If a sentiment existed among U.S. citizens of being tied to the global community, individuals might begin to tie themselves with those around the world with whom they do similar work. This poses a problem for the capitalist class because the capitalist class benefits from exploiting individuals in the Global South by not paying them a living wage for their work. This is partly done to deliver products to the Western consumer at a more competitive price. The danger of the American worker identifying with those in the Global South who do similar work to theirs, yet are not making a living wage, is that the American worker may feel he or she is contributing to that exploitation, and this concern or guilt is threatening to the capitalist class. Thus, the legitimating ideology of patriotism that is

disseminated by the state serves both the interest of the state as well as the capitalist class because the individual identifies him or herself with the state, rather than as a member of the global community.

Furthermore, the state relies on the legitimating ideology of patriotism to justify war to its populace, and this is of benefit to the capitalist class if the proposed military conflict is in a region that has opportunities for the capitalist class to profiteer off U.S. military presence and dominion over the region.

Applying these aforementioned theories to the defense-petroleum-policy complex, I suggest that the defense industry prospers almost exclusively when defense contracts are given to it by the state, and in order to prosper, the petroleum industry needs either market volatility or access to known petroleum reserves. These two criteria can both be satisfied with the overthrow of leadership in oil-rich nations, or increasing instability in those regions. Petroleum firms do not hold the legitimacy or capacity to declare war or covertly overthrow leaders of foreign nations rich with oil; only the state can provide these functions. In turn, the capitalist class can provide one of the legitimating characteristics of the state; employment for the American workforce, which is necessary to maintain acceptable approval ratings for the state. In the process, the capitalist class can secure the vital resource of petroleum, which is considered essential to the

continued prosperity of the state (CNN, 2008).¹⁵ If a state is without jobs and unable to get access to the necessary resources it needs for stability, then the state that will lose legitimacy rather than corporations that provide these necessary resources (Habermas, 1975).

The state needs the petroleum industry to thrive because the resource it provides are necessary for economic growth; while the petroleum industry benefits from the system the state maintains and legitimates. And, both the state and the petroleum industry need the defense industry to advance their interests. But of course, the defense industry is dependent upon the state to contract for their products. Consequently, all three of these actors are in a highly interdependent relationship. Therefore, the state needs the capitalist class, and the capitalist class needs the state.

So if state and the capitalist class are rivals that need one another, how can we theoretically bridge this divide? The divide between these two conflicting organizational entities is bridged through the interlocking governmental director. The interlocking governmental director is a board member who served as a former policymaker, bureaucrat, or military leader and is receiving a sizable sum of money to look after the interests of the corporation for which they are board directors, and their primary responsibility is to advance the financial interests of

¹⁵ In the summer of 2008, former Vice-President Al Gore warned that the energy crisis is a threat to the survival of the U.S.

that company. Therefore, the strategy of corporations to seat a former government official on their board is done for several reasons: to bridge the gap between the organization and that state, to assist in reducing some of the government imposed environmental conditions that prove problematic for the capitalist class, and to influence the state into actions that are beneficial to the capitalist class. According to Burris (2005), “the politically cohesive effects of directorship ties remain robust even as one moves several links down the chain of indirect ties that connect top corporate officers to one another” (p. 249). So this strategy of bridging the two competing organizational entities, the state and the capitalist class, appears to be a common practice.

In closing, just as different types of power vary in their degree of power within time and space, so too does the power struggle between the state and the capitalist class. Hawdon (1996) explains, “[g]iven the opposing nature of the optimal forms of the state and capitalism and that those systems are highly interdependent, it is unlikely that both systems can achieve their optimal form simultaneously....[a] given stage of the process will find the state being “optimized,” however, before the next stage occurs, capitalism will be “optimized,” and therefore the state’s power will be lessened” (p. 28-29). Given the actions of the G.W. Bush administration in recent years to exercise military or covert actions in regions rich in petroleum, this could suggest that a balance of power exists with the defense and petroleum industry capitalists over the state.

Chapter 3

Model and Methodology

As was discussed in the previous chapter, interlocking directorates are a common feature in the U.S. corporate structure. Interlocks serve the functions of reducing uncertainty and diffusing power within the corporate structure. This chapter addresses the methodology used to locate the incidence of interlocks across corporations in various industries, and the questions posed regarding these findings along with the qualitative questions that will address the corporate connections between the petroleum and defense industries. Operating on the notion that interlocks are purposeful, studying the degree of interlocks, both quantitatively and qualitatively between two industries, may reveal connections and interests not readily assumed or known. The following is the model and methodology used to arrive at the findings (Chapter 4).

3.1 Model

The units of analysis used in this study are the state as an actor; the capitalist class, specifically board members seated on corporate boards; Corporations as organizations; state elites, specifically current and former policymakers, bureaucrats, and high-ranking military officers/officials. The key

unit of analysis, however, is not the actors or organizations that make up this data, but the relationships among and across pairs of industries. Specifically these are identified as cells within Table 3 (see Chapter 4).

The primary variable for this unit of analysis is the *standardized degree of connectedness*, defined as the extent to which a given industry pair shares individual corporate board members, after adjusting for the average number of shared corporate board members across all industry pairs. For this I use *Forbes Magazine's* 25 industry categories (Forbes, 2005) plus one category I created for this study, (26) Defense. I created this category because Forbes does not have a category exclusively for the defense industry, but instead couples the defense industry with the aerospace industry, to form the (1) Aerospace and Defense category. Because not all of the companies in the (1) Aerospace and Defense category are primarily defense contractors, a separate category, (26) Defense, was created. The 26 industry categories yield 322 industry unique pairs for my sample.¹⁶ For example, among the 26 industries are (19) Petroleum and (26) Defense, which together constitute one of the 322 industry pairs. I am only concerned with the largest corporations within each industry, usually 10. In some instances I was unable to acquire corporate board data for companies that are

¹⁶ The 322 pairs calculation was arrived at by using the equation, $((x^2-x)/2)$ where x = total number of industries, which equals 325 pairs. However, the created defense category includes companies that are categorized in three of the *Forbes* industries. Therefore, in the industries where there is company overlap, a count of interlocks cannot be performed and this occurs three times, thus there are three pairs of interlocks deducted from the 325 pairs total.

ranked #8, #9, or #10 in the Forbes list. In those cases I took the data for the industries I was able to acquire from *theyrule.net* and omitted the other firms in the industry that I was unable to acquire data for.¹⁷ Since the number of shared directors in an industry pair is difficult to interpret without comparison to a “typical” number of shared directors, I standardize each industry pair’s degree of connectedness by the average number of shared corporate board members across all 322 industry pairs. Later in this chapter I present the actual formula used to compute standardized degree of connectedness.

My study revolves around an apparent sequence in which petroleum and defense-related capital influences the state, which in turn acts to promote these capitalist fractions’ interests. Specifically, I hypothesize that the petroleum and defense industries feature a stronger than average degree of connectedness. To address these issues I ask two primary research questions:

1. I suggest that relative to interlocks between other industries, interlocking directorates of greater frequency exist between the petroleum and defense industries. Is this the case? This question will be answered using quantitative data.

¹⁷ Theyrule.net features the Executive Board listings of roughly 400 U.S.-based corporations in the 2004 fiscal year. On Oct 22nd, 2007 I compared 2004 10-K SEC filings from a sample of 5 companies: ExxonMobil, Boeing, ChevronTexaco, Oracle, and Microsoft, and found that theyrule.net’s assignments of corporate directors is complete and fully accurate based on this sampling.

2. I suggest that circumstantial evidence indicates that the state has engaged in military or covert operations that would benefit petroleum and defense capitalists? If this is so, I ask how, and to what extent? This question will be answered using primarily qualitative data, with some minimal use of quantitative data. Contributing to the circumstantial evidence for this will be two sub-parts to this question:

- a. To what extent do the petroleum and defense industries' executives or board members connect with the state?
- b. In what ways, if any, has the state used military or covert operations that have benefited the petroleum and defense industries? For example, did the U.S. petroleum industry benefit from U.S. involvement in conflict and instability in the Persian Gulf, and if so, how?

I test my hypothesis and answer my qualitative questions within a particular temporal and spatial context: large U.S.-based corporations during the period 2002 to 2008. I chose this timeframe for several reasons: (a) these are the years in which George W. Bush served as president for the entirety of the year, and thus, his administration can be credited entirely with the policy and military decisions, thus avoiding the complication of comparing multiple administrations; (b) the data on interlocks that I was able to acquire are from 2004, and the seven-year

window selected allows me to study the policy decisions by the G.W. Bush Administration prior to and following the 2004 year; (c) this time-frame stretches from the 2002 U.S.-backed coup of Venezuelan leader, Hugo Chavez, through the 2003 U.S.-led invasion of Iraq, continuing through the record oil prices which peaked in the Summer of 2008, and into the U.S. economic collapse of the Fall of 2008.

This study focuses on U.S. based actors, namely U.S. based corporations and the U.S. government, but also examines related non-U.S. actors, such as Venezuela and Iraq, when identifying examples of U.S. military or covert actions against foreign governments. Regarding U.S. based corporations, this study identifies capitalist class elites, more specifically corporate directors. Regarding the U.S. government, this study focuses on the policies of the G.W. Bush Administration along with on state elites, such as former and current policymakers, bureaucrats, and military leaders that sit on the boards of the companies in this study. The board members are significant to this study because they provide a concrete mechanism through which to study the more macro actors and their actions, such as those of the state and the corporation.

3.2 Methodology

Question 1 is a quantitative question: Relative to interlocks between other industries, do interlocking directorates of greater frequency exist between the petroleum and defense industries?

3.2.1 Quantitative Methodology

I will answer question 1 based on a matrix which counts the number of interlocks in every unique pair of industries. In effect, I pool all directors from the largest corporations (typically: 10) in each industry, and count how many directors in that industry pool also exist in each other industry's director pool. Interlocks between two corporations in the same industry are irrelevant to this analysis. I use the industrial sector categories designated by *Forbes* magazine in their 2004 version of the 2000 largest corporations in the world (Forbes, 2004). I use *Forbes'* 2004 data to match the year of data I have on interlocks from *theyrule.net*.

In this analysis corporations are classified into specific industries as identified by *Forbes* magazine in the 2004 issue of the largest corporations in the U.S. and world, which are ordered from top to bottom by *Forbes* based on their share of market capital in their respective category (Table 1.). As stated previously, because *Forbes* does not have a category exclusively for defense contractors, only a category combining both (1) Aerospace and Defense, I created

a new category labeled (26) Defense. The ten firms listed in this category were the top ten recipients Department of Defense contracts in 2004 as identified by *Global Security* (2005).

The industrial categories listed in the *Forbes* edition are the following: (1) Aerospace and Defense; (2) Banking; (3) Business Services; (4) Capital Goods; (5) Chemicals; (6) Conglomerates; (7) Construction; (8) Consumer Durables; (9) Diversified Financials; (10) Drugs and Biotechnology; (11) Food Markets; (12) Food, Drink and Tobacco; (13) Healthcare Equipment and Services; (14) Hotels, Restaurants, and Leisure; (15) Household and Personal Products; (16) Insurance; (17) Materials; (18) Media; (19) Petroleum (*Forbes* category: Oil and Gas Operations); (20) Retailing; (21) Software and Services; (22) Technology Hardware and Equipment; (23) Telecommunications Services; (24) Transportation; (25) Utilities; (26) Defense; (27) Semiconductors; and (28) Trading Companies. I exclude these last two categories because I could not acquire data from *theyrule.net* on 7 of the (27) Semiconductor companies and 8 of the (28) Trading Companies. Therefore, only 25 industries from the *Forbes* listing are included in this study, along with the defense category I created.¹⁸ Because the defense category includes a firm or firms also listed in (1) Aerospace and Defense; (6) Conglomerates; and (21) Software and Services categories, these

¹⁸ Every corporation in this study is U.S.-based, and functions in its respective categorized industry, either directly or through a subsidiary.

industries' interlocks are not meaningful and therefore are excluded from my analysis of the interlock matrix.

Table 1. is a categorical list of the Top U.S. corporations in their respective industries, whose frequency of interlocks are included in this study. These firms are listed in order of their market share, within their respective industry, as listed by Forbes in the 2004 edition of the "Forbes 2000." In industries where *theyrule.net* included the top-ten corporations within an industry, all ten corporations are listed. However, there are instances where *theyrule.net* only had 7, 8, or 9 corporations within an industry and those corporations are still listed in this study, omitting those for which *theyrule.net* did not have the data for.

Table 1.¹⁹
Listing of all
Corporations in this
study

Aerospace and Defense Firms
Boeing
Honeywell
Lockheed Martin
Northrop Grumman
General Dynamics
Raytheon
L-3 Communications
Goodrich
Rockwell Collins
107 total director positions
Banking Firms
Citigroup
Bank of America
J.P. Morgan Chase
Wells Fargo
Wachovia
Bank One
Washington Mutual
U.S. Bancorp
FleetBoston Financial
National City
150 total director positions

Business Services
Automatic Data
Waste Management
Xerox
Pitney Bowes
HandR Block
Aramark
Lexmark International
Avery Dennison
Allied Waste Industrial
Manpower
110 total director positions

Capital Goods
Caterpillar
Deere and Co
Illinois Tool Works
Eaton
Danaher
American Standard
Parker Hannifin
Rockwell Automation
WW Grainger
Cummins
107 total director positions

Chemicals
Dow Chemical
DuPont
PPG Industries
Air Products and Chemicals
Praxair
Rohm and Haas
Ecolab
Engelhard
Eastman Chemical
Lyondell Chemical
114 total director positions

Conglomerates
General Electric
United Technologies
3M
Emerson Electric
Textron
Fortune Brands
ITT Industries
Dover
SPX
101 total director positions

Construction
Masco
Centex
DR Horton
Pulte Homes
Lennar
KB Home
Fluor
NVR
78 total director positions

Consumer Durables
General Motors
Ford Motor
Johnson Controls
Paccar
Harley-Davidson
Lear
Whirlpool
Delphi
Genuine Parts
Mohawk Industries
114 total director positions

¹⁹ All companies are listed in the descending order of their market share within their respective industry. On the final row of each industry table is the total number of directors between all firms in that particular industry.

Diversified Financials

Fannie Mae

Freddie Mac

Morgan Stanley

Merrill Lynch

American Express

Goldman Sachs Group

Lehman Bros Holdings

MBNA

Countrywide Financial

Capital One Financial

117 total director positions

Drugs and Biotechnology

Pfizer

Johnson and Johnson

Merck and Co

Bristol-Myers Squibb

Abbott Laboratories

Wyeth

Eli Lilly and Co

Amgen

Schering-Plough

110 total director positions

Food Markets

Kroger

Albertsons

Sysco

Safeway

Supervalu

Winn-Dixie

Performance Food

77 total director positions

Food, Drink, and Tobacco

Altria Group

Coca-Cola

PepsiCo

Anheuser-Busch Co

Sara Lee

Coca-Cola Enterprises

General Mills

ConAgra Foods

Archer Daniels

Kellogg

126 total director positions

Health Care Equip and Services

Cardinal Health

UnitedHealth Group

HCA

Aetna

WellPoint Health

Medtronic

Cigna

McKesson

Anthem

Baxter International

117 total director positions

Hotels, Restaurants and Leisure

Cendant

McDonald's

Marriott Intl

Yum Brands

Starwood Hotels

MGM Mirage

Harrah's Entertainment

Starbucks

Hilton Hotels

113 total director positions

Household and Personal Products

Procter and Gamble

Kimberly-Clark

Gillette

Colgate-Palmolive

Nike

Eastman Kodak

Avon Products

Mattel

Estee Lauder

Clorox

122 total director positions

Insurance

American Intl Group

Berkshire Hathaway

MetLife

Allstate

Prudential Financial

Travelers Property

Aflac

John Hancock Financial

Chubb

Marsh and McLennan

146 total director positions

Materials

Alcoa

Weyerhaeuser

International Paper

Georgia-Pacific

Temple Inland

MeadWestvaco

Smurfit-Stone

Ball

Sealed Air

United States Steel

110 total director positions

Media

Time Warner

Viacom

Comcast

Walt Disney

Clear Channel

Gannett

Tribune

McGraw-Hill

Cablevision systems

Cox Communications

120 total director positions

Petroleum (Forbes category: Oil and Gas Operations)

ExxonMobil

ChevronTexaco

ConocoPhillips

Marathon Oil

Occidental Petroleum

Devon Energy

Valero Energy

Anadarko Energy

Amerada Hess

Unocal

117 total director positions

Retailing

Wal-Mart

Home Depot

Target

Lowe's

Sears, Roebuck

Walgreen

Costco Wholesale

CVS

Gap

Best Buy

115 total director positions

Software and Services

Microsoft

First Data

Oracle

Computer Sciences

Electronic Data Systems

Unisys

Affiliated Computer

68 total director positions

Technology Hard and Equipment

IBM

Hewlett-Packard

Cisco

Dell

Motorola

EMC

Qualcomm

Sun Microsystems

Lucent Technologies

Apple

105 total director positions

Telecommunications Services

Verizon Wireless

SBC Communications

BellSouth

ATandT Wireless

Nextel Communications

Sprint

Qwest

Alltel

96 total director positions

Transportation

United Parcel Service

Union Pacific

FedEx

Burlington Santa Fe

Norfolk Southern

Southwest Airlines

CSX

Northwest Airlines

AMR

Delta Airlines

119 total director positions

Utilities

Exelon

Southern Co

Dominion Resources

Entergy

Public Service Enterprise

FPL Group

Progress Energy

Edison International

Consolidated Edison

FirstEnergy

129 total director positions

Defense

Lockheed Martin

Boeing

Northrop Grumman

General Dynamics

Raytheon

Halliburton

United Technologies

Science Applications International

Computer Sciences

Humana

120 total director positions

To provide the comparative perspective between oil and defense and how the interlocks between these two respective industries compare with interlocks between other industries I have utilized the data from the *theyrule.net* database (www.theyrule.net) which displays a listing of all directors of each corporation and which allows users to create interlocking maps between members of corporate boards for the 2004 fiscal year. However, rather than create a map for each connection between every corporation in every industry, the developer of *theyrule.net* was gracious enough to provide me the data used to construct the mapping linkage system in a Microsoft Excel spreadsheet (On, 2008).

I assigned each director a number to facilitate the analysis. For example, John Q. Director of Acme Co. would be given the number “253”, and if he was also a director for XYZ Inc., “253” would appear under XYZ Inc.’s list of directors. In all there were 2,868 directors in this database. I imported this data into SPSS, then using frequency distributions to count interlocks. From this data I created a matrix of the number of interlocks between each industry.

If more than one director in a particular firm sits on the board of a particular firm in a different industry, I count them as a single interlock. That is, only one link is allowed between two corporations in different industries. One interlock thus represents two firms, not the number of individual directors linking those two firms.

However, some industries have more firms than others, and each firm has a varying amount of director positions on its board, necessitating data standardization to meaningfully assess the degree of interlock for each industry pair. This was accomplished by creating a standardization measurement with a new formula.²⁰ The following formula (which I will refer to as the “standardizing formula”) makes the appropriate adjustments:²¹

$$NIDS(ij) = \{NID(ij)/[c(i)*c(j)]\} * [(d(i)/dbar) * (d(j)/dbar)] * N^2$$

Where:

- NIDS(ij) = standardized number of interlocking directorates involving industry i and industry j (this is the new measure of interlocks, the standardized score)
- NID(ij) = number of interlocking directorates involving industry i and industry j
- c(i) = number of corporations in the industry in row i
- c(j) = number of corporations in the industry in column j
- d(i) = number of director positions per corporation in industry i
- d(j) = number of director positions per corporation in industry j
- dbar = mean number of directors positions in all corporations across all N industries (Sum [d(i)]/Sum [c(i)], across all industries)
- N = number of industries in the matrix

NID(ij) is the unstandardized matrix of raw data. c(i)*c(j) adjusts for the number of corporations in industries i and j. The maximum possible for c(i)*c(j) is 10*10

²⁰ Dr. Theodore Fuller developed the formula for this study. Dale Wimberley and I adapted it for this dataset.

²¹ Providing a measure of the standardized degree of connectedness, as defined earlier.

= 100, this is because there is a maximum of 10 firms in each industry as I only took the top 10 firms within each *Forbes* industry. However, some industries have smaller values of C than 10 because I was not able to get the data of the board of directors for each industry's top 10 firms from theyrule.net, in which case I only used the top 7, 8, or 9 firms if that is what I had data for. Thus, if for a given pair there are 10 firms in each industry, we divide NID (ij) by 100. If aerospace has 9 and banking has 10, then $9 * 10 = 90$, so we divide by 90, because there are not as many chances for interlocking directorates in that pair of industries.

Furthermore, $d(i)/\bar{d}$ adjusts for the mean number of directors in an industry. If a given industry has many directors, there are more chances that there will be interlocking directorates involving that industry. The ratios for both industry i and industry j must be taken into account.

The necessity of the standardizing formula can be explained with the following example: if we were to assess the number of interlocks between (11) Food Markets and (16) Insurance we find that there are 5 interlocks. Assessing (2) Banking and (15) Household and Personal Products we find that there are also 5 interlocks. However, the interlock between (11) Food Markets and (16) Insurance is stronger because the (11) Food Markets industry contains only 77 director positions in this study, and (16) Insurance contains 146, for a total of 223 director positions. (2) Banking and (16) Household and Personal Products contain 150 and

122 director positions, respectively, for a total of 272 director positions.

Therefore, the number of director positions in an individual industry increases the opportunity for interlocks with other industries and must be controlled.

3.2.2 Qualitative Methodology

Question 2 is primarily a qualitative question: Does circumstantial evidence indicate that the state has engaged in military or covert operations that would benefit petroleum and defense capitalists? If so, how, and to what extent? Contributing to the circumstantial evidence for this will be two sub-parts to this question:

- a. To what extent do the petroleum and defense industries' executives or board members connect with the state?
- b. In what ways, if any, has the state used military or covert operations that have benefited the petroleum and defense industries? For example, did the U.S. petroleum industry benefit from U.S. involvement in conflict and instability in the Persian Gulf, and if so, how?

These questions will be answered through circumstantial evidence from relevant news stories and quantitative data from LexisNexis Academic, Google.com, and

other online search engines. These articles are from newswires such as the Associated Press and Reuters, during the 2002 to 2008 period. I assess events reported in these sources for relevance, frequency, and magnitude and use them to address research question 2.

Chapter 4.

Findings

The following are the findings used to answer the quantitative and qualitative questions in this study.

4.1 Question 1: The Breadth of Petroleum and Defense Interlocks

This first section will test my hypothesis that the petroleum and defense industries feature a stronger than average degree of connectedness.

Table 2, beginning on the following page, shows the unstandardized raw data: the industries surveyed in this study and the number of interlocks between each industry. Table 3 shows the standardized data that was computed using the standardizing formula outlined in Chapter 3. For quotients in Table 3, higher quotients correspond to stronger interlocks.

Table 2.
Number of Interlocks between Forbes Industries

Industry	(1) Aerospace and Defense	(2) Banking	(3) Business Services	(4) Capital Goods	(5) Chemicals	(6) Conglomerates	(7) Construction	(8) Consumer Durables
(1) Aerospace and Defense	X							
(2) Banking	2	X						
(3) Business Services	3	2	X					
(4) Capital Goods	15	4	14	X				
(5) Chemicals	3	7	3	6	X			
(6) Conglomerates	6	4	6	6	6	X		
(7) Construction	3	1	3	4	1	2	X	
(8) Consumer Durables	3	5	3	4	7	6	3	X
(9) Diversified Financials	4	2	4	4	3	11	2	5
(10) Drugs and Biotechnology	7	10	7	4	2	7	0	4
(11) Food Markets	0	3	0	3	1	3	0	2
(12) Food, Drink, and Tobacco	5	8	5	6	7	8	3	11
(13) Healthcare Equip and Services	0	4	0	4	7	3	2	4
(14) Hotels, Restaurants and Leisure	0	7	0	5	2	2	2	4
(15) Household and Personal Products	5	5	5	6	4	7	3	10
(16) Insurance	4	4	4	5	2	4	0	2
(17) Materials	1	5	1	9	3	3	5	4
(18) Media	5	4	5	5	3	4	2	2
(19) Petroleum	4	6	4	2	5	4	2	3
(20) Retailing	1	10	1	4	5	3	1	6
(21) Software and Services	2	3	2	4	1	1	0	4
(22) Technology Hardware and Equipment	6	5	3	5	5	3	1	5
(23) Telecommunications Services	4	5	4	2	4	10	1	4
(24) Transportation	1	1	1	6	3	8	3	6
(25) Utilities	3	4	3	5	4	3	2	3
(26) Defense	N/A	6	0	5	3	N/A	1	4

Table 2. continued.
Interlocking Directorates between Forbes Industries

Industry	(9) Diversified Financials	(10) Drugs and Biotechnology	(11) Food Markets	(12) Food, Drink, and Tobacco	(13) Healthcare Equipment and Services	(14) Hotels, restaurants and leisure	(15) Household and personal products	(16) Insurance	(17) Materials
(1) Aerospace and Defense									
(2) Banking									
(3) Business Services									
(4) Capital Goods									
(5) Chemicals									
(6) Conglomerates									
(7) Construction									
(8) Consumer Durables									
(9) Diversified Financials	X								
(10) Drugs and Biotechnology	6	X							
(11) Food Markets	2	0	X						
(12) Food, Drink, and Tobacco	8	5	3	X					
(13) Healthcare Equip and Services	5	4	1	3	X				
(14) Hotels, Restaurants and Leisure	1	1	1	7	1	X			
(15) Household and Personal Products	6	4	0	8	5	8	X		
(16) Insurance	7	8	5	6	5	2	4	X	
(17) Materials	3	4	2	5	4	0	7	0	X
(18) Media	7	6	1	3	5	3	6	4	1
(19) Petroleum	2	7	0	4	3	0	6	4	7
(20) Retailing	6	2	0	8	2	8	8	4	1
(21) Software and Services	3	5	2	5	3	0	4	3	0
(22) Technology Hardware and Equipment	5	6	6	7	2	2	7	5	4
(23) Telecommunications	5	5	0	7	3	0	8	2	5
(24) Transportation	6	4	2	9	5	3	9	4	5
(25) Utilities	3	2	2	4	3	3	3	5	2
(26) Defense	17	5	0	5	1	0	7	3	2

Table 2 continued.
Interlocking Directorates between Forbes Industries

Industry	(18) Media	(19) Petroleum	(20) Retailing	(21) Software and Services	(22) Technology Hard and Equipment	(23) Telecommunications Services	(24) Transportation	(25) Utilities	(26) Defense
(1) Aerospace and Defense									
(2) Banking									
(3) Business Services									
(4) Capital Goods									
(5) Chemicals									
(6) Conglomerates									
(7) Construction									
(8) Consumer Durables									
(9) Diversified Financials									
(10) Drugs and Biotechnology									
(11) Food Markets									
(12) Food, Drink, and Tobacco									
(13) Healthcare Equip and Services									
(14) Hotels, Restaurants and Leisure									
(15) Household and Personal Products									
(16) Insurance									
(17) Materials									
(18) Media	X								
(19) Petroleum	2	X							
(20) Retailing	3	0	X						
(21) Software and Services	2	1	2	X					
(22) Technology Hardware and Equipment	6	5	5	2	X				
(23) Telecommunications Services	2	3	1	0	0	X			
(24) Transportation	8	4	4	4	2	8	X		
(25) Utilities	3	2	0	0	0	1	5	X	
(26) Defense	5	8	2	N/A	0	3	1	1	X

Table 3.
Standardized scores of Interlocks between Industries

Industry	(1) Aerospace and Defense	(2) Banking	(3) Business Services	(4) Capital Goods	(5) Chemicals	(6) Conglomerates	(7) Construction	(8) Consumer Durables
(1) Aerospace and Defense								
(2) Banking	19.17							
(3) Business Services	21.09	15.96						
(4) Capital Goods	102.57	31.06	79.71					
(5) Chemicals	21.86	57.91	18.20	35.41				
(6) Conglomerates	47.81	36.19	39.81	38.73	41.26			
(7) Construction	23.36	8.84	19.46	25.23	6.72	14.70		
(8) Consumer Durables	21.86	41.36	18.20	23.60	44.01	41.26	20.16	
(9) Diversified Financials	29.91	16.98	24.90	24.22	19.36	77.63	13.80	32.26
(10) Drugs and Biotechnology	60.75	98.54	50.59	28.12	14.98	57.34	0.00	29.96
(11) Food Markets	0.00	34.21	0.00	24.40	8.67	28.44	0.00	17.33
(12) Food, Drink, and Tobacco	40.26	73.14	33.52	39.13	48.64	60.80	22.29	76.44
(13) Healthcare Equip and Services	0.00	33.96	0.00	24.22	45.17	21.17	13.80	25.81
(14) Hotels, Restaurants and Leisure	0.00	70.86	0.00	36.11	15.39	16.83	16.45	30.77
(15) Household and Personal Products	38.98	44.26	32.46	37.89	26.91	51.51	21.58	67.28
(16) Insurance	37.32	42.38	31.08	37.79	16.10	35.23	0.00	16.10
(17) Materials	7.03	39.91	5.85	51.24	18.20	19.91	32.43	24.27
(18) Media	38.34	34.83	31.93	31.06	19.85	28.95	14.15	13.24
(19) Petroleum	29.91	50.94	24.90	12.11	32.26	28.23	13.80	19.36
(20) Retailing	7.35	83.45	6.12	23.81	31.71	20.81	6.78	38.05
(21) Software and Services	17.74	30.21	14.77	28.73	7.65	8.37	0.00	30.61
(22) Technology Hardware and Equipment	40.26	38.10	16.76	27.18	28.95	19.00	6.19	28.95
(23) Telecommunications Services	38.34	54.42	31.93	15.53	33.09	90.48	8.84	33.09
(24) Transportation	7.60	8.64	6.33	36.96	19.69	57.43	21.05	39.38
(25) Utilities	24.73	37.44	20.59	33.39	28.46	23.34	15.21	21.34
(26) Defense	N/A	52.25	0.00	31.06	19.85	N/A	7.07	26.47
Mean over all industries	30.74	42.20	21.77	35.17	26.41	37.72	13.28	31.25
Grand Mean	28.35							
Mean over all industries excluding (2) Banking and (9) Div Financials	28.51	N/A	21.88	35.82	25.35	35.97	13.45	30.76
Grand Mean	26.19							

Table 3. continued.
Standardized scores of Interlocks between Industries

Industry	(9) Diversified Financials	(10) Drugs and Biotechnology	(11) Food Markets	(12) Food, Drink, and Tobacco	(13) Healthcare Equipment and Services	(14) Hotels, restaurants and leisure	(15) Household and personal products	(16) Insurance	(17) Materials
(1) Aerospace and Defense									
(2) Banking									
(3) Business Services									
(4) Capital Goods									
(5) Chemicals									
(6) Conglomerates									
(7) Construction									
(8) Consumer Durables									
(9) Diversified Financials									
(10) Drugs and Biotechnology	46.12								
(11) Food Markets	17.79	0.00							
(12) Food, Drink, and Tobacco	57.05	41.39	28.74						
(13) Healthcare Equip and Services	33.11	30.75	8.89	21.39					
(14) Hotels, Restaurants and Leisure	7.90	9.16	10.61	59.52	7.90				
(15) Household and Personal Products	41.43	32.06	0.00	59.49	34.53	65.87			
(16) Insurance	57.84	76.73	55.49	53.40	41.32	19.71	17.23		
(17) Materials	18.68	28.91	16.72	33.52	24.90	0.00	32.46	0.00	
(18) Media	47.54	47.30	9.12	21.94	33.96	24.30	28.33	33.90	6.39
(19) Petroleum	13.24	53.80	0.00	28.53	19.87	0.00	27.62	33.05	43.58
(20) Retailing	39.05	15.11	0.00	56.08	13.02	62.09	40.72	32.49	6.12
(21) Software and Services	23.56	45.58	21.10	42.29	23.56	0.00	16.38	29.40	0.00
(22) Technology Hardware and Equipment	29.71	41.39	47.89	44.80	11.89	14.17	43.38	37.08	22.35
(23) Telecommunications Services	42.45	49.27	0.00	64.00	25.47	0.00	53.12	21.19	39.91
(24) Transportation	40.41	31.27	18.09	65.28	33.68	24.09	49.16	33.62	31.66
(25) Utilities	21.90	16.95	19.61	31.45	21.90	26.12	7.61	45.56	13.73
(26) Defense	115.46	39.42	0.00	36.57	6.79	0.00	35.41	25.43	12.77
Mean over all industries	35.69	37.82	14.68	45.59	22.28	20.71	36.23	33.18	21.22
Mean over all industries excluding (2) Banking and (9) Div Financials	N/A	34.82	13.70	43.89	21.30	19.09	35.65	31.71	20.52

Table 3. continued.
Standardized scores of Interlocks between Industries

Industry	(18) Media	(19) Petroleum	(20) Retailing	(21) Software and Services	(22) Technology Hard and Equipment	(23) Telecommunications Services	(24) Transportation	(25) Utilities	(26) Defense
(1) Aerospace and Defense									
(2) Banking									
(3) Business Services									
(4) Capital Goods									
(5) Chemicals									
(6) Conglomerates									
(7) Construction									
(8) Consumer Durables									
(9) Diversified Financials									
(10) Drugs and Biotechnology									
(11) Food Markets									
(12) Food, Drink, and Tobacco									
(13) Healthcare Equip and Services									
(14) Hotels, Restaurants and Leisure									
(15) Household and Personal Products									
(16) Insurance									
(17) Materials									
(18) Media									
(19) Petroleum	13.58								
(20) Retailing	20.03	0.00							
(21) Software and Services	16.11	7.85	15.44						
(22) Technology Hardware and Equipment	36.57	29.71	29.21	14.10					
(23) Telecommunications Services	17.42	25.47	8.34	0.00	15.24				
(24) Transportation	55.26	26.94	26.48	31.96	24.18	69.08			
(25) Utilities	22.47	14.60	0.00	0.00	6.55	9.36	37.13		
(26) Defense	34.83	54.34	13.35	0.00	30.48	26.12	6.91	7.49	
Mean over all industries	27.26	24.15	23.82	17.73	27.36	30.89	32.09	20.28	27.72
Mean over all industries (excluding (2) Banking and (9) Div Financials	26.04	23.46	20.57	16.89	26.79	29.36	32.75	19.46	20.72

The standardizing formula is applied to (5) Chemicals and (7) Construction industries to provide an example of its application:

$$\text{NIDS}(ij) = \{ \text{NID}(ij) / [c(i) * c(j)] \} * [(d(i) / \text{dbar}) * (d(j) / \text{dbar})] * N^2$$

In this example (5) Chemicals is designated as industry (i), and (7) Construction is designated (j).

The first part of the formula is $\{ \text{NID}(ij) / [c(i) * c(j)] \}$, and it features three parts:

$\text{NID}(ij)$ = is the number of interlocks between industry (i) and industry (j), which in this instance is 1.

$c(i)$: number of corporations in the industry (i), which in this instance is 10

$c(j)$: number of corporations in the industry (j), which in this instance is 8.

$$\text{therefore: } \{ 1 / [10 * 8] \} = 0.0125$$

The second part of the formula is $[(d(i) / \text{dbar}) * (d(j) / \text{dbar})]$, and features three parts:

$d(i)$: number of director positions in industry (i), which in this instance is 11.4

$d(j)$: number of director positions in industry (j), which in this instance is 9.75

dbar : mean number of director positions in all corporations across all N industries, which in this study is 11.82.

$$\text{therefore: } [(11.4 / 11.82) * (9.75 / 11.82)] = 0.796$$

The final part of the formula is N^2 , which is (N) the number of industries in the matrix, which in this study is 26.

$$\text{therefore: } 26^2 = 676$$

$$\text{So, } (0.0125) * (0.796) * 676 = 6.72$$

4.1.1 Exceptional Cases: Banking and Diversified Financials

Historically, interlocks between the banking and diversified financials industries and all other industries are known to be strong. In Table 3, the second and fifth highest mean quotients are (2) Banking and (9) Diversified Financials are unique in this study because within these industries, corporations recognize the necessity to interlock with corporations in the interest of gaining loan capital or emergency capital should something become awry and there is a need to gain access to necessary capital. As explained by Pennings (1980), interlocks with banking institutions are utilized to give firms greater access to capital, lower interest rates on loans they receive, and increased ability to reduce some of the environmental pressures they experience. Pennings (1980) also suggests that the more interlocks an organization has, the more effective it is. Therefore, organizations see the need for stronger interlocks with the banking/diversified financials sector, which can be an indicator for the success of an organization regardless of industry type.

This history of the banking and diversified financials sector having control over major U.S. firms dates to the early 20th Century. Referring to the work of Zeitlin (1974), Hall and Tolbert (2005), "...[t]here is evidence that families such as the Mellons of Pittsburgh [had] controlling interests in Gulf Oil, Alcoa, Koppers Company, and Carborundum Company in the manufacturing sector, also had controlling interests in the First Beacon Corporation, The General Reinsurance Corporation, and the Mellon National Bank and Trust Company in

the financial sector...[and] Rockefeller family had similar points of linkage among financial institutions and insurance companies” (p. 11). These linkages may be the very reason that in 1913 Justice Louis Brandeis made the previously mentioned declaration of the impending danger that interlocks wield. Bearden and Mintz (1987) have argued that “bank boards are the primary location for collective decision-making within the corporate world” (p. 187). Therefore, it is no surprise that banks play a significant role in the corporate structure and show more interlocking directorates within their industry. Research on the reachability of financial institutions within the corporate structure has long been studied. As Richardson (1987) notes regarding previous interlocking studies on financial institutions, “[b]ecause of the central position of financial institutions in the economy, social scientists have tended to focus on relationships between major financial and nonfinancial corporations” (p. 249).

This high degree of interlock between banking and every other sector demonstrates (1) the importance of the financial sector to U.S. industries; (2) that U.S. industries are highly interconnected; and (3) almost all companies could “reach” (in a network sense) almost all other companies through their connections in the banking sector (Domhoff, 2005). Because of these research findings on the banking and diversified financials sectors, and because my results in Table 3 are consistent with those earlier findings, a strong argument can be made for omitting interlocks between the (2) Banking and (9) Diversified Financials industries, on

one hand, and all remaining industries, on the other hand. These industries are unique to the corporate structure and their interlocks with other industries are not comparable for purposes of testing my hypothesis. For this reason, I exclude them from my analysis.

4.1.2 Testing the Hypothesis

We expect some of the strong interlocks in Table 3 because they are between industries that affect each other's environment. For example, the interlock quotient between the (15) Household and Personal Goods and (20) Retailing industries is 40.72, 36 percent higher than the mean interlock quotient of 26.19 across all industry pairs (excluding than (2) Banking and (9) Diversified Financials). We expect to see a strong interlock of this type between these two industries because (15) Household and Personal Goods are distributed primarily through retail establishments. Therefore, a strong relationship between the directors of the major companies provides both industries with obvious advantages, such as the reduction of environmental uncertainty: for example, household products and personal goods might increase their prices to retailers, or a "big-box" retailer such as Wal-Mart could elect not to carry products from a

particular corporation in the (15) Household and Personal Goods industry: These interlocks exist to stave off these sorts of occurrences.²²

While the mean interlock quotient in the standardized table across all industries, excluding (2) Banking and (9) Diversified Financials, is 26.19, the interlock quotient between the (19) Petroleum and (26) Defense industries is more than twice that figure at 54.34. While there are cases of interlocks higher than 54.34 between industries that we would not expect to be so strongly interlocked, such as the (23) Telecommunication Services and (24) Transportation industries, at 69.08, the majority of interlocks higher than 50.0 can be explained as pairs of co-dependent industries. For example, many of the firms in the (4) Capital Goods industry supply the (3) Business Services industry, their interlock is 79.71. The liability for drugs and biotechnology companies is very high. A strong interlock of 76.73 between firms in the (10) Drugs and Biotechnology industry with firms in the (16) Insurance industry makes sense. Both the (19) Petroleum and (26) Defense are each other's strongest interlock at 54.34. This finding in Table 3 is significant and corresponds to my hypothesis.

Likely the most significant finding in this data is that the quotient of 54.34 between petroleum and defense ranks among all quotients of all industries.

Including the (2) Banking and (9) Diversified Financials industries there are a total of 322 quotients each representing a standardized degree of interlock. Of the

²² The term "big-box" refers to "large, stand-alone discount stores, such as Wal-Mart, Toys R Us and Office Max" (Maryland Department of Natural Resources, 2008).

322 quotients, the quotient representing the standardized interlock between petroleum and defense is ranks 31st in degree of interlock strength out of 322. This means that petroleum and defense rank in the 90th percentile in regards to strength of interlock, a significant finding further substantiating the hypothesis that these industries feature a stronger than average interlock. When the (2) Banking and (9) Diversified Financials industries are excluded from the study, the standardized quotient of 54.34 between (19) Petroleum and (26) Defense, ranks 23rd out of 273, placing it in the 92nd percentile. These results support my hypothesis that a significantly stronger than normal interlock exists between the (19) Petroleum and (26) Defense industries.

If it is possible to infer that interlocks between (3) Business Services and (4) Capital Goods or between (10) Drugs and Biotechnology and (16) Insurance makes sense because these industries can affect one another's environment, then it is possible to delve further into an understanding of why the (19) Petroleum and (26) Defense industries have a strong interlock. Circumstantial evidence laid out further in this chapter argues that petroleum and defense are two key sectors that are involved in current U.S. foreign policy. Most oil coming into the U.S. is foreign, and most defense contracts are involved in the maintenance of military installations, either domestic or abroad. All of these installations have the primary purpose of bolstering military offensives in the event of conflict. As is evidenced by the numerous linkages connecting the petroleum and defense industry, the

relative magnitude of these interlocks presents us with the fundamental question: what are the implications of these linkages and interlocks? One might assume that an implication of this strong linkage is a greater propensity of these corporations to support military ventures in regions that are oil-rich, as this would prosper both industries. But the ability to influence policy in this manner would require conduits within government, because as mentioned in the literature, the state exercises a monopoly over the use of the military.

4.2 Question 2: Qualitative Analysis

The following section addresses the overarching qualitative question of this study: does circumstantial evidence indicate that the state has engaged in military or covert operations that would benefit petroleum and defense capitalists? If so, how, and to what extent? Specifically, what type of connections do executives from the petroleum and defense industries have with the state? Moreover, what ways, if any, has the state used military or covert operations that have benefited the petroleum and defense industries? For example, did the U.S. petroleum industry benefit from U.S. involvement in conflict and instability in the Persian Gulf, and if so, how?

4.2.1 Peak Oil as a Motive

Peak oil is a theoretical and scientific estimate of the point in time which oil production peaks and then declines. Many analysts say that peak oil has already occurred, and we are currently in the decline. Even the U.S. Government Accountability Office stated that oil production either has peaked already, or is likely to peak at some point between now and 2040. This is dependent upon a number of factors, notably the rate of growth in the demand for oil (UPI Energy, 2007). However, according to most industry analysts, peak oil has already occurred. Richard Heinberg (2007) believes that global production of oil peaked in May 2005, and that the U.S. government is well aware of this fact - which is why oil has become the backbone of their foreign policy strategy.

Is it then only coincidental that the U.S. began such an aggressive military and political campaign toward overthrowing leaders of two oil-rich countries only two to three years months prior to the speculated peak of global oil production? The fact that in 2007 the U.S. government acknowledged that peak oil is occurring or will occur relatively soon can be circumstantial enough to speculate that, based on the scientific analyses, the global race for petroleum by the 21st Century's next Superpower has commenced (Haywood, 2007). The threat of peak oil can be considered a tenable argument in suggesting that the U.S. may have executed the use of military force or covert action in pursuit of securing oil interests for U.S. firms.

According to the 2008 *British Petroleum Statistical Review of World Energy*, an industry standard annual report, the Middle East contains 61 percent of the world's proven oil reserves as of the end of 2007 (British Petroleum, 2008). With peak oil officially declared a U.S. concern and petroleum such an important resource, U.S. presence in the region may have more to do with the strategy of securing this resource for U.S. petroleum firms than with opening the region to free markets, as the G.W. Bush Administration has continually trumpeted. As argued previously, with peak oil a reality, there is a struggle for proven petroleum reserves, and in the economic system of capitalism, maximum profitability is the chief objective. To achieve maximum profitability from the remaining proven reserves, U.S. petroleum firms need access, and the U.S. government appears to have found it in their interest to conjoin the interests of two corporate actors, petroleum and defense, along with their state interests in going after regions with proven petroleum reserves.

The importance of the petroleum and defense sectors to the U.S. government cannot be overstated. Petroleum access and cost help dictate the overall standard of living within the U.S. Petroleum market prices have such an impact on the U.S. economy that in 2006 former Federal Reserve Chairman Alan Greenspan gave a terse warning about the impact that rising oil prices will have on the U.S. economy (Associated Press, 2006). Thus, as discussed in the literature review, access to this resource of is vital importance for the legitimacy of the

state. Furthermore, the major defense contractors are nearly a subdivision within the Department of Defense (Harring, 2005), and the state relies on them for producing advanced military equipment and technology. Since 2001 U.S. defense spending has seen a dramatic increase, “balloon[ing] about 35 percent in real terms,” and in February of 2008 the Pentagon requested the biggest defense budget in world history (Lubold, 2008). This defense spending is relevant to the petroleum industry: at the end of 2007 fiscal year, the U.S. government has spent \$450 billion dollars on the invasion of Iraq (Belasco, 2008), an invasion many believe was motivated by petroleum interests. For the defense industry to remain highly profitable and highly relevant there must be conflict or the imminent threat of conflict. In fact, the profitability of the invasion of Iraq could be seen before its onset, “[o]f the \$57 billion that was appropriated for Iraq operations at the onset of the invasion, a good third of it went to civilian contractors to supply meals, drive trucks and buses, provide security guards, and do all other housekeeping to maintain our various bases” (Johnson, 2006, p. 7).

4.2.2 Bush Administration Involvements in Oil-Rich Regions

The U.S.-led invasion of Iraq was not the only instance that the Bush Administration was involved in overthrowing a leader of an oil-rich nation. During President G.W. Bush's first term in office there were two U.S.-led

overthrows of a Head of State. Both of which were leaders of oil-rich nations; the most well-known of those is the U.S.-led invasion of Iraq. The lesser known was the first instance, when the democratically-elected leader of Venezuela, Hugo Chavez, was overthrown in a 2002 military coup d'état for 48 hours while a transitional government, backed by the U.S., assumed power and dissolved the Venezuelan constitution. However, the takeover did not last long, as droves of Venezuelan citizens came out in protest of this new “transitional” government and demanded that Hugo Chavez be reinstated as the legitimate leader of Venezuela. It was later revealed that an organization created and funded by the U.S. Department of State, the National Endowment for Democracy (NED) was responsible for financing the opposition party that organized and led Chavez's overthrow (Clement, 2005).

According to a report by the Energy Information Administration, a division within the U.S. Department of Energy, Venezuela is the largest exporter of crude oil in the Western Hemisphere (EIA, 2009). “Venezuela contains some of the largest oil and natural gas reserves in the world. It consistently ranks as one of the top suppliers of U.S. oil imports / [and] in 2007 the country was the seventh-largest net oil exporter in the world.” (EIA, 2009). At the time of the overthrow the Venezuelan state-owned oil company, *Petróleos de Venezuela, S.A.* held rights to the 13,700 CITGO gas stations across the United States, and still today supplies almost 15 percent of the U.S.’s crude petroleum (AP, 2006; Padgett, 2008; Citgo,

2009;)²³ Therefore, it arouses suspicion that the U.S. would target Venezuela for a covert operation such as the one in 2002. It has been speculated that because President Chavez and the U.S. were at odds over his nationalization of his country's oil industry, the U.S. acted to overthrow him (Clement, 2005).

The second instance is far better known: the U.S.-led invasion of Iraq in 2003. Initially touted as a mission to locate weapons of mass destruction, several other attempts to legitimate the invasion were offered when the weapons of mass destruction claim proved false. Finally, even the former Federal Reserve Chairman, Alan Greenspan, declared in his 2007 memoir that “the Iraq war is largely about oil” (Los Angeles Times, 2007). Critics of the notion that the U.S.-led invasion of Iraq was anything more than a military invasion aimed at access to petroleum should consider the following passage regarding the massive looting and destruction that ensued as U.S. troops initially invaded Iraq in 2003: “[a]mong the few places American soldiers actually did guard during and in the wake of their invasion were the country’s oil fields and the Oil Ministry in Baghdad” (Johnson, 2006, p. 46). The immediate presence of U.S. forces guarding Iraqi oil fields and its ministry while chaos ensued suggests that from

²³ *Petróleos de Venezuela, S.A.* still holds rights to all CITGO stores, however, the number of stores in the U.S. decreased significantly in 2007 when Dallas-based 7/11 announced that it would not renew their contract to use the CITGO brand at their convenience stores/gas stations. According to the MSNBC report (Associated Press, 2006), 7/11 claims that this is because Venezuelan President Hugo Chavez called former U.S. President George W. Bush the “devil” in 2006 when he appeared before the United Nations.

the onset, the U.S. motive was protection of and access to Iraq's oil fields. While it is generally understood that oil is a valuable and finite resource that is highly sought after, it is important to note that the increasing discussions regarding peak oil have intensified the value of oil, and its imminent depletion has resulted in a scramble by world powers to gain control over existing fields.

4.2.3 Petroleum and Defense Connections

Petroleum and defense corporations suspiciously come together as primary co-sponsors at policymakers' conferences that seemingly have nothing to do with these two industries. The 2007 U.S.-Africa Business Summit, a Cape Town meeting of "800 leaders from the public and private sectors from the United States, Africa and other continents" was sponsored by firms including petroleum companies ExxonMobil, Chevron, Marathon, and Shell, and defense firms Boeing and General Electric (USABS, 2007).

Another example of a venue in which the defense-petroleum-policy complex comes together is the National Council on U.S.-Arab Relations (NCUSAR) Policymakers Conference held annually during the last Thursday and Friday in October in Washington D.C. In 2007 I attended this conference whose theme that year was, "*Revisiting Arab-U.S. Strategic Relations: Geopolitical, Energy, Defense Cooperation, and Developmental Dynamics.*" The conference

featured panels and addresses by U.S. government officials, Middle East leaders and diplomats, military officials, and top petroleum and defense company executives. Conference organizers explained that the aim of the conference was to bring together leaders and executives to discuss energy cooperation between the U.S. and Middle East and the mutual dependency between these two regions.

Curiously, there was representation from nearly all oil-rich Middle East nations at the conference other than Iraq and Iran. The absence of Iran is most telling because if the conference were truly aimed at cooperation and diplomacy, then the increasing threats the G.W. Bush Administration had been making toward Iran would have made their presence at the conference a legitimate attempt toward accomplishing the conference's mission of energy trade through cooperation and understanding.

What also seemed suspicious is that the keynote panel discussions on energy did not delve much into cooperation, but rather seemed like campaigning for the interests of the oil industry, namely the justification of exorbitant oil prices. The keynote panels were strictly on the state of the petroleum industry and strategies for increasing U.S. access to Middle East petroleum. Not surprisingly, the panel entitled "Energy" on October 25th was the most well-attended session. Upon the conclusion of the panel discussion featuring the petroleum executives, dozens of people from U.S. policy officials to private defense contractors were lined up to speak to the petroleum executives. Table 4., on page 92, lists those

representatives from the defense, petroleum, or policy sectors who were featured speakers at this conference, and their respective official position at the time of the conference.

Table 4.
Featured Speakers from the Defense, Petroleum, or Policy Sectors at the
2007 NCUSAR Policymakers Conference

U.S. Military Officials (Former and Current)	U.S. Petroleum Industry Officials	U.S. Government Officials
U.S. Army Lieutenant General Martin E. Dempsey, Deputy Commander of U.S. Central Command	Mr. Michael J. Dolan, President, ExxonMobil Chemical Company and Vice-President, ExxonMobil Corporation	Hon. Ronald Neumann, former U.S. Ambassador to Afghanistan, Algeria, and Bahrain
U.S. Army Lieutenant General Martin E. Dempsey, Deputy Commander of U.S. Central Command	Mr. John D. Hofmeister, President, Shell Oil Company	Senator Chuck Hagel, member of the U.S. Senate Committee on Foreign Relations
Major General William Nash (USA, Ret.)	Mr. Gary R. Heminger, Executive Vice President, Marathon Oil Corporation, and President, Marathon Petroleum Company, LLC	Dr. Frank Verrastro, former U.S. Department of Energy official
U.S. Army Lieutenant General Martin E. Dempsey	Mr. Sigmund L. Cornelius, Senior Vice President, ConocoPhillips	Amb. Shaun Donnelly from the Office of the U.S. Trade Representative
Rear Admiral Harold J. Bernsen (USN, Ret.)		Dr. Kenneth Katzman, Senior Analyst of Gulf Affairs for the U.S. Congressional Research Service
General Wesley K. Clark (USA, Ret.)		Amb. Lawrence E. Butler, Deputy Assistant Secretary of the Bureau of Near Eastern Affairs at the U.S. Department of State
		The Hon. Clay Sell, Deputy Secretary and Chief Operating Officer, United States Department of Energy

Source: NCUSAR, 2007

More telling of the relationship that has been forged between the defense industry, petroleum industry and the U.S. policymaking sector were the conference sponsors of this event. Of the 35 total sponsors of this conference, 20 percent (7) of the sponsors were Middle East nations; just under 9 percent (3) were law firms who specialize in corporate litigation for cases such as fraud and anti trust, 20

percent (7) were petroleum firms, and 29 percent (10) were defense contractors (NCUSAR, 2007).²⁴

The presence, in specific, of one sponsor in the legal field, Patton Boggs, raises the most suspicion. Patton Boggs is predominately known as a lobbying firm, but was hired by Halliburton because of increased congressional scrutiny regarding Halliburton's contracts and spending in Iraq. According to the non-profit *Project on Government Oversight* Patton Boggs and several other defense contractors, including General Dynamics, one of the defense firms in this study, held a holiday party in December 2005 in the Congressional Rayburn House Office Building for the Congressional *Committee on Oversight and Government Reform*, the committee that was responsible for drafting the "legislation [removing] protections that prevent contractors from overcharging the government" (Project on Government Oversight, 2006). Patton Boggs also represented ExxonMobil against a private anti-trust action regarding a pipeline dispute brought against these companies in Alaska (Patton Boggs, 2007). Through the use of lobbying firms such as Patton Boggs, corporations can promote their own interests, and the sponsorship of Patton Boggs at the NCUSAR conference may help explain how defense and petroleum corporations gain greater access to government.

²⁴ Of the six sponsors included in the petroleum industry calculation, one, Shell, is not U.S. based and was not included in Table 5.

Figure 1, on the following page, is a flier from the 2007 NCUSAR conference that displays the corporate logos of the conference sponsors, and Table 5. lists these petroleum and defense sponsors. This conference demonstrates the corporate cohesiveness of these two industries. These corporations, the primary industry sponsors of an event featuring top U.S. energy policymakers and military officials with the aim at developing strategic energy arrangements with the oil-rich Middle East, illustrate the embeddedness of the petroleum and defense industries within one another.

Figure 1.

Conference flier from the 2007 NCUSAR Policymakers Conference

The National Council on U.S.-Arab Relations

presents

Revisiting Arab-U.S. Strategic Relations: Geopolitical, Energy, Defense
Cooperation,
and Developmental Dynamics

16th Annual Arab-U.S. Policymakers Conference
October 25 - 26, 2007

Ronald Reagan Building & International Trade Center
1300 Pennsylvania Ave., NW, Washington, D.C.



Table 5.
List of the Defense and Petroleum Industry Sponsors for the 2007 NCUSAR
Policymakers Conference

U.S. Defense Industry Sponsors	U.S. Petroleum Industry Sponsors
Boeing	ConocoPhillips
General Dynamics	Exxon Mobil
NorthropGrumman	Marathon
Halliburton	Hess
Raytheon	Chevron
Pratt Whitney - United Technologies Co.	
TextTron Defense Systems	
DynCorp	
Lockheed Martin	
Fluor	

Source: NCUSAR, 2007

The conference folder that was provided to all those in attendance is further evidence of the dominant sponsorships of the petroleum and defense industry firms at this policymakers' conference. Of the 24 full-page advertisements in the conference folder, 6 are petroleum firms and 9 are defense firms. From this, it appears that these policymakers' conferences are an important lobbying venue for the petroleum and defense industries.

The strong connection between petroleum and defense appears strategic. A plausible explanation is that this connection has been designed through a concerted effort by petroleum and defense firms because of their mutual dependence in co-opting policymakers into military ventures that benefit them both. As Hall and Tolbert (2005) have argued, referring to the work of Granovetter (1985),

The concept of social embeddedness suggests another factor that often constrains organizational decisions and thus limits conflict.

The concept calls attention to the fact that organizations (as well as individuals) have enduring relationships with other actors and are part of ongoing social networks. These relations shape decisions both because they are an important source of information about different choices that may be made, and because in order to maintain the relations organizations may have to take certain actions (p. 133).

Based on Granovetter's (1985) argument, the relationship between the petroleum and defense industries is focused on "shap[ing] decisions and having access to sources of information" that allow for decision-making. The decision-making that affects both of these industries most directly is state policy and governance.

Simply explained, for integrated-energy companies that own or lease oil fields and refine crude petroleum into unleaded gasoline, profit margins are directly tied to the market price of a barrel of petroleum: the higher the market price, the greater the profit (Smith, 2008).²⁵ The cost to extract crude petroleum for an integrated-energy company does not change based on the market price of a barrel of oil, so when the market cost of a barrel of crude petroleum increases, so does

²⁵ As evidenced by ExxonMobil's ninth consecutive record-breaking quarterly profit of \$14.83b announced on October 29, 2008.

their profit margin. Huber and Mills (2005) explain this concept in the *Wall Street Journal*:

Demand for oil grows daily in China and India, where good government is finally taking root, while much of the earth's most accessible oil lies under land controlled by feudal theocracies, kleptocrats, and fanatics. Day by day, just as it should, the market attempts to incorporate these two antithetical realities into the spot price of crude. But to suppose that those prices foreshadow the exhaustion of the planet itself is silly. The cost of extracting oil from the earth has not gone up over the past century, it has held remarkably steady. Going forward, over the longer term, it may rise very gradually, but certainly not fast. The earth is far bigger than people think, the untapped deposits are huge, and the technologies for separating oil from planet keep getting better. U.S. oil policy should be to promote new capital investment in the United States, Canada, and other oil-producing countries that are politically stable, and promote stable government in those that aren't.

What is significant about this quote is the imperialistic language used by its authors in explaining good governments vs. bad/unstable governments and the

responsibility or duty of the United States in promoting stable governance in regions where oil is present. Of further significance is that this piece was published in the *Wall Street Journal*, a newspaper dedicated to readers interested in domestic and global economics and finance, with a strong bent toward free-market capitalism. Huber and Mills' piece relates not only to the foreign policy strategy of the U.S. in eliminating adversaries in regions rich with oil, but also conveys implications for global business strategies to its readership. This is important because it combines the advocacy of conflict with deregulation and resource acquisition. As has been evidenced in Iraq, a nation that has not conducted oil explorations for 20 years, following the U.S.-led invasion there was immediate exploration occurring vis-à-vis a transitional government and warring. Because access to known petroleum reserves is of cardinal importance to the success of the United States' long-term foreign policy agenda (Mohammed, 2008), this opens the discussion of the strategies that have executed in the procurement of petroleum

4.2.4 The Procurement of Petroleum and the Benefits to the Defense Industry

It is in the interest of integrated oil firms to see market prices on crude petroleum increase, thus allowing them to increase what they charge for refined unleaded gasoline. However, what is most crucial to integrated oil companies,

even above market prices on crude petroleum, is access to oil fields. As current oil fields begin to dry up, they must search for new access to crude, and oil exploration is a costly and lengthy process that possesses sizable risks, namely the prospects of yielding only negligible findings or finding no petroleum at all. David R. Frances (2005) explains the situation of hydrocarbon exploration in Iraq, a region with massive reserves: “oil exploration, of course, involves geophysical risk. It could take hundreds of millions of dollars to find there is no oil. If adequate oil reserves are found, it would take more money to build the infrastructure to get it to the world markets. The total could run to \$2 billion to \$3 billions [according to estimates].” Thus, the most attractive access to oil is from known reserves and oil-fields. However, nearly all known reserves are either already under contract with other integrated-energy firms, or under the sovereignty of state governments. In such circumstances the defense industry becomes a formidable player in the connection between petroleum and military operations.

According to data from the historical tables of outlays from the *Budget for the Fiscal Year 2009* published by the U.S. Government, the since the Cold War, military spending increases when the U.S. is in conflict, or faces the threat of conflict. Defense spending as a percentage of GDP in 1962 was 9.2 percent and reached a peak of 9.5 percent in 1968, at the height of Cold War tensions and U.S. involvement in the Vietnam War. It would hit a low of 4.2 percent in 1978, during

the Carter Administration, at a period of relative calm. Then there is a significant upswing in defense spending during the Reagan Administration when it reached a 13-year high in 1986 of 6.2 percent as Reagan escalated Cold War tensions. Defense spending as a percentage of GDP declined significantly under the Clinton Administration to a historic low of 3 percent in 2000, another period of relative calm before taking an upswing following the September 11, 2001 attacks to 3.4 percent in 2002, then 4 percent of GDP in 2005 and an estimate of 4.5 percent in 2009 (U.S. Government, 2008, p. 137).

From this, the conclusion should be drawn that conflict or the threat of conflict results in increases in military spending, which can potentially benefit the defense industry. Therefore, it is in the interest of the defense industry for the state to be in conflict or under the threat of conflict. Thus, we can piece together the following framework:

To gain access to crude petroleum found in sovereign nations, a state must exercise power and execute action. As Mann (1986) informs us, there are four options for applying power: buy the oil from them (i.e. economic power), negotiate with them for the oil (i.e. political power), convince them it is in their best interests to provide us access (i.e. ideological power), or take the oil from them by force (i.e. military power). Obviously, the United States has and continues to buy oil from foreign nations. Similarly, the United States has successfully negotiated for oil and convinced foreign nations to provide access to

their oil fields. However, as noted earlier, the use of ideological power requires not only “good ideas” and “sound logic,” it also requires time. With peak oil production either having already passed or passing very soon, the United States may be running out of the time required to use ideological power. This lack of time is especially pronounced in nations with less-than-harmonious relations with the United States. Is it likely that the United States could have successfully negotiated with Saddam Hussein to gain access to Iraqi oil? Given the strained relations with Iraq after the First Gulf War of the early 1990s, the continued U.S.-led embargo on Iraqi goods, and the declaration that Iraq was part of an “axis of evil” by President Bush, it is highly doubtful Hussein would agree to a deal the United States would find favorable. Thus, the most expedient, and possibly the only, type of power that could provide U.S.-based oil firms access to Iraqi oil was military power. When quick access to crude petroleum is found in oil fields under the sovereignty of a less-than-friendly foreign government, the interests of petroleum, defense, and government come into play quite handsomely

The connection among between the petroleum, defense, and government sectors have existed at least since the CIA organized and led overthrow of Iranian Prime Minister Mohammad Mossadeq in Operation Ajax in 1953 (Thomson, 2005). Mossadeq was overthrown by a CIA-led coup d’etat because of his plans to nationalize Iranian petroleum fields and pull petroleum interests from the Anglo-Iranian Oil Company (which would be renamed British Petroleum a year

after Mossadeq was deposed) after negotiations for higher royalties failed (Thomson, 2005). A few years later, in March 1957, Congress approved the Eisenhower Doctrine, stating “the United States regards as vital to the national interest and world peace the preservation of the independence and integrity of the nations of the Middle East” (ICH, 2008). Only a month following the approval of this doctrine, the U.S. sent its 6th Fleet and landed a Marine Battalion in Lebanon in response to government opposition rioting occurring in Jordan (ICH, 2008). The U.S. militarization of the Middle East would intensify in 1958 on the heels of the merger between Syria and Egypt to form the United Arab Republic. Several other mediating factors led to the intensified militarization of the Middle East in the 1950s:

with the [populist] overthrow of the pro-U.S. King Feisal II in Iraq by nationalist military officers, and the outbreak of anti-government/anti-U.S. rioting in Lebanon, where the CIA had helped install President Camille Caiman and keep him in power leads the U.S. to dispatch 70 naval vessels, hundreds of aircraft and 14,000 Marines to Lebanon to preserve “stability.” The U.S. threatens to use nuclear weapons if the Lebanese army resists, and to prevent an Iraqi move into the oilfields of Kuwait, and draws up secret plans for a joint invasion of Iraq with Turkey. The plan is

shelved after the Soviet Union [threatened] to intervene (ICH, 2008).

These would be the beginning stages of the U.S. militarization of the Middle East, which some say occurred exclusively for oil interests. In fact, in 1979 President Jimmy Carter's defense Secretary Harold Brown stated "we clearly are leaning toward an increase in our security presence [in the Persian Gulf]," and further declared that the U.S. was prepared to use military force if necessary to protect oil-related "vital interests in that area" (Hoffman, 1979). This specific strategy would become known as the Carter Doctrine when President Carter restated this approach in his 1980 state of the Union Address (Carter, 1980).

In 1990, when Saddam Hussein entered the oil-rich nation of Kuwait and declared it a territory of Iraq, the U.S. military gained permission from Saudi Arabia to station troops in the Arabian Desert. Following the war, other Arabian Gulf nations agreed to allow U.S. Military Bases and installations within their territories, allowing the U.S. to fortify the region with its military presence (Monthly Review, 2002). According to Department of Defense records, as of 2007, there are roughly 220,000 U.S. military troops currently stationed in the Arabian Gulf (Department of Defense, 2007). The arms, equipment, housing, and all other necessities for these 220,000 troops are acquired and provided through various defense contracts with different firms and the U.S. presence in support of

their “vital interests” in the region throughout the 20th and early 21st centuries have proven to be very profitable for defense contractors.

This strategy has opened the region to U.S. integrated-energy companies, created a permanent presence for both industries through permanent military bases and installations, secured access to known oil reserves, and provided additional oil-exploratory opportunities. As the Eisenhower and Carter Doctrines explicitly declared, the Middle East is a region with great interests to the U.S. and U.S. military operations will occur in the region if necessary to maintain those interests. Given the region’s wealth of oil reserves and relative dearth of other natural resources, those “interests” are clearly oil.

However, the military option to gain access to oil is not the only tactic exercised. In other instances, oil executives have appeared to use craftier tactics, such as the installation of “front” companies to gain access where trade embargos and regulations have stifled their access. One such example began in April 1996, when U.N. diplomatic sanctions were imposed on Sudan for what was deemed as their participation in terrorism (Sudan Update, 2007). These diplomatic sanctions presented a difficulty for foreign investors, particularly U.S. oil firms interested in exploring Sudan’s petroleum reserves, because of the U.S. - imposed block on investing in Sudan. However, after much lobbying, Congress passed what became known as the “Oxy loophole” in August of 1996, which permitted a Los Angeles-based petroleum firm, Occidental Petroleum, to participate in the Sudanese oil

venture (Sudan Update, 2007). The Sudanese government, however, made the decision to block Occidental Petroleum from partaking in oil projects in Sudan as a direct response to the United States' involvement in providing aid to Ethiopia, Eritrea, and Uganda, all of whom were aiding the anti-Sudanese SPLA/NDA force (Sudan Update, 2007). Months later, a small and unknown "exploratory firm" based out of Vancouver, Canada named Arakis Energy Corporation suddenly won the rights to the exploratory project awarded by the Sudanese government (Sudan Update, 2007). Suspiciously, several former Occidental Petroleum executives began appearing on the executive board of this obscure Arakis Energy Corporation and remained leading figures until the Arakis contract in Sudan had expired. While it was never made entirely clear whether Occidental Petroleum executives somehow co-opted Arakis Energy Corporation to allow them to participate in the project, these connections are suggestive. Arakis Energy Corporation later merged with Tallisman Energy, and its former president and founder was charged in Canada with insider-trading violations stemming from secretly trading Arakis shares based on non-public information (Stockwatch Business Reporter, 2006). The suspicious nature of the Occidental Petroleum suddenly appearing on the executive board of Arakis Energy after Occidental Petroleum was barred in participating in oil explorations in Sudan suggests the possibility that petroleum capitalists will circumvent domestic or foreign state regulations to gain access to petroleum. However, this example of the possibility

that an executive would move on to other leadership positions to potentially benefit their former company pales in comparison to the Halliburton-Dick Cheney example discussed in the next section.

4.2.5 The State and Capitalist Connection

Former Vice President Richard Cheney's ties to Halliburton present one of the most interesting examples of the government connection with the defense and petroleum industries. Cheney was the Secretary of Defense during the Persian Gulf War, under G.H.W. Bush, and following this post, Cheney served as the CEO of Halliburton Inc. from 1995 to 2000, a company unique in this discussion because it falls into both the defense contractor and petroleum services categories. Dean (2004) asserts that through Cheney, Halliburton had "a level of access that no one else in the oil sector could duplicate" (p. 43).²⁶ As a former Secretary of Defense, when Cheney was serving as CEO of Halliburton, his influence in the State Department and Department of Defense surely was substantial.

Furthermore, after Cheney left Halliburton to serve as Vice President under G.W. Bush, he retained financial interests in Halliburton (Roethe, 2006). Therefore, it was in Cheney's interest to see Halliburton gain contracts, and this was accomplished most evidently in the non-bid contracts Halliburton received in

²⁶ Originally cited in Roethe, 2006, p. 219

the U.S. military operations in Iraq. Cheney's interests in Halliburton are of further significance because as a *Boston Globe* column in February of 2004 characterized him, "Cheney is the most powerful vice president in US history" (Kuttner, 2004), suggesting that "there is a fair amount of circumstantial evidence that Cheney, not Bush, is the real power at the White House and Bush the figurehead" (Kuttner, 2004). Thus, there may have been an ongoing conflict of interest between Vice President Cheney, as there are estimates that Halliburton has received over \$8 billion in contracts since Cheney entered office, and the U.S. government gave Halliburton preferential treatment in the awarding of non-bid contracts (Lueng, 2003). From information found in a report in the Congressional Research Service, Rothe (2006) explains how Cheney held unvested stock options in Halliburton as of 2002, and even as of 2004 still held 433,000 shares of Halliburton stock, which he could benefit from post vice-presidency. As Rothe (2006, p. 220) states, Cheney could "exercise [these] stock options for a substantial profit."²⁷ Although Cheney's stake in Halliburton while Vice-President seems like a blatant conflict of interest, what was more impressive was Cheney's ability to circumvent antitrust laws to turn Halliburton into an industry leader.

Referring to the plot from the movie *Syriana*, one storyline in the film features a fictional *supermajor* petroleum firm, Connex, which is attempting to

²⁷ Rothe, 2006 cites Chatterjee, 2004; Lautenberg, 2003 following this passage.

acquire a lesser known petroleum firm, Killeen, because Killeen had recently acquired a heavily sought after oilfield contract in Kazakhstan. In the film the Connex CEO will go to any seemingly any length to ensure that this merger is accomplished despite potential antitrust violations and resistance from the Department of Justice.

In 1998, while former Vice-President Richard Cheney was CEO of Halliburton, he engaged in a situation somewhat similar to this storyline from *Syriana*, when he was the architect of the \$7.7 billion acquisition of Dresser Industries by Halliburton. This acquisition “accomplished a major strategic goal, making Halliburton the world's largest provider of oil-field services” (Fina, 2003; Norris, 2006). Interestingly, Dresser Industries’ ties with G.W. Bush’s Administration run deep, as his father, 41st President George H.W. Bush, worked for Dresser Industries early in his career (O’Clearly, 2004).

With Vice President Richard Cheney and the family of G.W. Bush heavily staked in the petroleum industry (Baker, 2008), the petroleum-based interests in the presidency of G.W. Bush are strong rooted. Moreover, William H. Bush, the uncle of G.W. Bush, serves as a trustee of Lord Abbott, one of Halliburton’s top shareholders. Rothe (2006, p. 219) writes, “...this relationship may have played a role in prime contracts recently awarded to Lord Abbott in Iraq.” Despite Halliburton and Dresser Industries being main industry rivals in oil-field services,

and this acquisition eliminating Halliburton's main competitor and thus greatly reducing market competition, it was approved by the Department of Justice.

While no director can sit on the board of a firm while maintaining a position as a lawmaker, bureaucrat, or military leader, it has become customary that once a former official has left their elected or appointed office, corporations will frequently offer them a seat on their board (Hillman, 2005). According to Amy J. Hillman (2005), the logic behind this strategy is that these former bureaucrats or lawmakers have a strong network developed with policymakers and therefore a greater advantage at getting the needs of an organization met if it requires co-opting some aspect within government or policy. According to Hillman (2005) "government policy, regulation, and enforcement are major forces in the external environment of business" (p. 465).²⁸ Thus, there is a need for corporations to be able to influence key external factors, such as policy, and this can essentially be done by seeing that certain measures or policies favorable to that organization are put into effect. As Chapter 2 delineates, this can be accomplished through interlocking directorates with the actors or organizations that influence the environment for that corporation. These interlocks can be between other corporations, or with government, such as the appointment of a former policymaker, bureaucrat, or military official who can gain access to

²⁸ Hillman, 2005 refers to the work of the following authors for this passage: Hillman, Zardkoohi, and Bierman, 1999; Mahon and Murray, 1981; Marsh, 1998; Selznick, 1949; and Shaffer, 1995.

policymaking elements in government that affect the environment of a corporation. Hillman (2005) explains:

Because of the uncertainty government regulation creates, many firms have sought to “co-opt” government by creating linkages between the firm and politicians. [This] co-optation often comes in the form of politicians and other individuals with access or influence to the government process being “absorbed” into the firm either through employment or election to the firm’s board of directors. Resource dependence scholars argue boards of directors are a primary method for absorbing critical elements of environmental uncertainty into the firm (p. 465).

The need for defense contractors to “absorb” former government officials on their boards seems reasonable, as defense contracts are awarded through the Department of Defense, and awards can be made directly by policymakers through a process called “earmarking” (Urry, 2007). According to Urry (2007),

[c]ritics argue that earmarking can lead to individual politicians authorizing federal money to be spent on businesses of their choosing, often with little public scrutiny and without competitive

bidding. As US defense spending has soared, so have earmarks, according to Winslow Wheeler, a former congressional staffer on Capitol Hill who handled earmark issues for Democrats and Republicans. “It really started taking off after 9/11. In fiscal year 2001 it was about \$2bn a year in the defense Bill; it doubled in that very first year to \$4bn. It went from there to \$6bn to \$8bn. Up to about \$10bn for fiscal year 2007.

Therefore, defense companies can have a direct avenue toward a defense contract. For example, if a former politician who is currently a board member of a defense firm has a good relationship with a politician, he/she may have the ability to influence that political friend into designating an earmark for a defense contract for the company on whose board he/she is seated.

The Department of Defense relies on a few primary contractors because the “consolidation of the defense supplier base into a few prime contractors has reduced competition” (U.S. GOA, 2008). Therefore, the defense market is controlled by a few large defense corporations, and the presence of former government officials on these boards is an attempt to reduce environmental uncertainty that is created by competition.

According to the data collected for this study’s quantitative analysis, of the 120 director positions seated on the 10 defense firms, 29 directors formerly held

official legislative, bureaucratic, or military posts within the U.S. government. Of the 117 directors seated on the boards of the 10 petroleum firms in this study, 21 board members held former official posts of legislative, bureaucratic, or military leadership within the U.S. government. There are 21 petroleum directors with former ties to the US government, a seemingly high number considering that petroleum is an industry that does not intuitively have a need for a governmental tie.

These figures lend some credence to the notion that the petroleum and defense industries are not separate from government. Instead, they appear to be intertwined in a relationship that is seemingly designed to combine policymaking with these two industries while maintaining legality regarding conflicts of interest or anti-trust violations.

Instead of risking the possibility of oil shortages and price volatility, the Bush Administration made possible a venture that would advance the interests of the new tripartite defense-petroleum-policy complex. The invasion of Iraq in 2003 benefited this trio in the following four ways:

1. The invasion demonstrated U.S. military hegemony. This was most evident with the US decision to go into Iraq without United Nations (UN) authorization and despite the fact that UN weapons inspectors had concluded that US intelligence reports of Iraq holding a cache of weapons of mass destructions could

not be verified. In 2004, former Bush-appointed U.S. Treasury Secretary Paul O'Neill revealed that the Bush Administration had plans to invade Iraq within days of President George W. Bush entering the White House in 2001. "It was all about finding a way to do it. That was the tone of it. The president saying 'Go find me a way to do this,'" O'Neill said (Lueng, 2004). Furthermore, the invasion of Iraq opened the opportunity for added U.S. military presence in the Asian continent, which some analysts suggest is strategy toward the containment of China, and the ever-growing oil consumption threat from both India and China (Weinstein, 2004). This approach to the engagement of conflict was a common theme within George W. Bush's two terms in office with foreign policies and diplomacy that tended toward a hegemonic strategy. The invasion of Iraq without U.N. authorization gave the Bush Administration the ability to demonstrate its military might and further solidify its place as the world hegemon.

2. The invasion created an environment in which defense contractors could make large profits. Firms like Halliburton, Xe, NorthropGrumman and others benefited greatly from the U.S. presence in Iraq as large non-bid contracts were awarded to them. Profits were so lucrative, in fact, that the average pay for a CEO of a defense contractor was 108 percent higher in 2005 than in 2001, whereas "pay for their counterparts at other large U.S. companies increased only 6 percent during this period" (Anderson et. al, 2006). This mind-boggling figure is only a tip of the

iceberg, as the climbing profits of the defense industry can be seen to parallel Richard Cheney's years as CEO of Halliburton and most significantly in his two-term Vice-Presidency, as Halliburton nearly doubled the value of federal contracts it received - from \$1.2 to \$2.3 billion - during the five years Cheney was its CEO, that in the five years prior, and received the famed \$7 billion contract to put out oil well fires through its subsidiary, Kellogg, Root, and Brown. (Mackey, 2006).

3. The invasion created large profits for the petroleum industry in the short term. The war in Iraq, along with constant threats of invading neighbor Iran, created a perceived volatility in the world oil market and the potential for volatility to the ever-important oil corridor of the Strait of Hormuz, which opened the way for oil speculators to propel crude petroleum prices to skyrocketing levels (Prins, 2008). Furthermore, the Republican-dominated Congress from 2001 to 2007 did not attempt to regulate oil speculation, and thus no measures were put in place that could curtail the impact that speculators were having on catapulting crude petroleum prices (Cockburn, 2009). Anderson et. al (2006) explain:

The top three U.S. oil companies reported first quarter profits in 2006 of \$15.7 billion, earnings up 17 percent over the first quarter last year. ExxonMobil, despite earning a record \$36 billion in 2005, has invested only \$3.3 billion toward systems improvements

over the last five years. ExxonMobil's second quarter 2006 profits were \$10.36 billion, 36 percent higher than a year ago. This gain is the second largest quarterly profit recorded by a publicly traded U.S. company. ConocoPhillips registered a 65 percent gain to \$5.18 billion. Chevron saw their second quarterly earnings rise 11 percent over last year, to \$4.35 billion. Even though this was a record for the company, Wall Street wanted more and the stock price dipped 3 percent on the day after the announcement (p. 25).²⁹

ExxonMobil became so awash with profits that to convey the magnitude of the company's revenues, the *Washington Post* described ExxonMobil's \$138.07 billion revenues as of the second quarter of 2008: "if [ExxonMobil] were a country, the company would have the 18th-largest economy in the world" (Mufson, 2008).

4. The invasion positioned the U.S. petroleum industries to benefit from future oil exploration, extrapolation, and refining when or if the situation in Iraq stabilizes. I have outlined that the objective of the U.S. government has been to gain access to the oil fields in Iraq that are under-producing or have yet to produce because of a

²⁹ Anderson et. al (2006) cite the U.S. House of Representatives Committee on Energy and Commerce; Steve Quinn, "ExxonMobil Beats Expectations, Profit Soars," *Associated Press*, Thursday, July 27, 2006 and; Rich Jurgens, "Chevron's Profits Surge, But Still Disappoint Wall Street," *Contra Costa Times*, July 28, 2006.

lack of advanced extraction technologies. The G.W. Bush Administration had repeatedly stated that their objective was to create a “free and democratic” Iraq, but more realistically, is that it appears that their objective was to establish a free-market system in Iraq whereby oil-fields would be opened for bidding, and those likely to benefit most from this would be U.S. integrated-energy firms, such as ExxonMobil, ChevronTexaco, and other *supermajors* that are involved in the oil extrapolation and production process.

Additionally, the invasion of Iraq afforded the G.W. Bush Administration the ability to demonstrate its military might and further solidify its place as the world hegemon by invading Iraq without UN authorization. This expression of authority and military strength was especially important to an administration that believed the U.S. should be increasingly unilateral and willing to act in its own self-interests at any expense. As President George W. Bush famously said, “you are either with us or against us” (CNN, 2001).

The petroleum industry benefited greatly in the immediate term because of record-setting crude prices, but the invasion also bodes well for the long-term future of U.S. integrated oil firms that will very likely conduct oil exploration, extraction, and refining once the situation in Iraq stabilizes, U.S.-imposed, free-market policies are implemented, and Iraqi oil fields and exploratory rights are put on the market.

4.2.6 Potential Antitrust?

Antitrust laws were developed as a measure to “protect consumers and preserve competition” according to a 2003 report by Fina et. al (2003) in the *Gas and Oil Journal*. The report outlines recommendations for mergers and acquisitions within the petroleum industry that will “speed the merger review and to avoid the antitrust minefield” (Fina et. al, 2003). The report reads:

Somewhat ironically, given the rise of the Organization of Petroleum Exporting Countries and the limited oil and gas reserves of the major oil companies in the West, the Sherman Act and the antitrust laws were enacted in large part to break up the Standard Oil Trust at the turn of the century. Today, FTC and DOJ share jurisdiction in enforcing the antitrust laws with respect to mergers and acquisitions. The role of FTC [Federal Trade Commission] and [the] DOJ [Department of Justice] in reviewing mergers and acquisitions is to determine whether a transaction is likely to raise competition issues. There are three fundamental questions the agencies seek to answer for each transaction. A “yes” response to any of these questions raises red flags for the antitrust agencies (Fina et. al, 2003).

According to the report by Fina et. al (2003), these three fundamental questions must be answered “No” to ensure an “unfettered merger:”³⁰

1. Are prices likely to increase as a result of the transaction?
2. Is the level of output or service likely to decline as a result of the transaction?
3. Is innovation or technological development likely to be retarded by the transaction?

This checklist seems inconsistent with the mergers witnessed in the late 1990s and early 2000s between Halliburton and its subsidiary, Kellogg-Root-Brown, along with the acquisition of its main rival, Dresser Industries, or the mergers that occurred among six of the United States’ largest petroleum corporations, who would come together to create three of the world’s six *supermajors*.

Furthermore, an interlocking director links Halliburton and ExxonMobil, two firms in competition, despite being categorized in different industries by *Forbes* magazine. Halliburton is a chief defense contractor providing energy services such as drilling and formation evaluations, a contractual service for which ExxonMobil, an integrated energy firm, also competes. This raises an issue

³⁰ The 2003 report in the *Oil and Gas Journal* by Fina et.al references “Howrey Simon Arnold and White” as the source for the questions regarding merger concerns.

of legality pertaining to the Clayton Antitrust Act, which prohibits interlocks among competing firms (Zajac, 1988).

These revelations lead to the question: what was the true motivation behind the Iraq War? The Latin adage, “cui bono?” for “who benefits?” can direct us into uncovering and understanding the motives behind an action. In regards to the invasion of Iraq, cui bono? This question may be answered by the following passage:

Campaign attempts to build public support for the invasion of Iraq skillfully exploited the political opportunities provided by the fear and anger many felt over the 9/11 attacks.³¹ By linking Saddam Hussein and Iraq to the wider war on terrorism, the administration established the idea that U.S. security required the ability, as a strategic unilateral defense mechanism, to attack any nation believed to be supporting terror. Yet this obscured the geopolitical and economic goals of creating a Pax Americana.³² Moreover, the hidden agenda to change the political and economic culture in the Middle East was in fact to privatize the whole economic structure

³¹ Rothe cites Michalowski and Kramer, 2005; Rothe and Muzzatti, 2004 in this passage.

³² Rothe cites Falk, 2004, p. 195 in this passage.

favorable to capitalism and U.S corporate interests (Rothe, 2006, p. 229).

It appears from the circumstantial evidence laid out in this dissertation, the three primary entities that sought to benefit from this exercise of military force are the defense industry, the petroleum industries, and the government sector, specifically elements within the G.W. Bush Administration seeking U.S. hegemony, or those who would financially profit from the venture. So the question is posed again: In regards to the invasion of Iraq, cui bono? The primary beneficiary of the invasion of Iraq is America's defense-petroleum-policy complex.

4.2.7 Conclusion

Is it only coincidental that the administration of President George W. Bush participated in one overthrow of a foreign leader of an oil-rich nation and an attempted overthrow in another? When the Venezuelan coup was unsuccessful, attention then went back to Iraq. When the situation in Iraq became dire and the war was growing increasingly unpopular in the months leading-up to the 2006 election, the G.W. Bush administration vilified Hugo Chavez, calling him a threat to Latin American stability and accusing him of supporting terrorism (BBC News, 2006).

The G.W. Bush Administration-led assaults on the leaders of oil-rich foreign governments are a very different battle than the one the U.S. faced in the second half of the 20th century. Under the pretense of “spreading democracy,” the U.S. military has served as a proxy for the interests of the defense and petroleum industries, invading a nation and establishing contracts that those in and associated with the G.W. Bush Administration appear to have had a vested financial interests. The use of the military to satisfy corporate interests reveals that a new complex may have emerged in the 21st Century, the defense-petroleum-policy complex. This new complex brings together the interests of three powerful entities: an entity that controls one of the world’s most vital resources, petroleum; an entity that manufactures the world’s most powerful weaponry, defense; and finally, the entity that hold the monopoly on the use of force, the state. We should have heeded President Eisenhower’s warnings of the military-industrial complex, and our failure to do so has ushered in a new, more dangerous complex for the 21st Century.

Chapter 5.

Summary, Conclusion, and Recommendations

5.1 Summary

The quantitative and qualitative data in this study provided substantive evidence to support my hypothesis that the petroleum and defense industries feature a stronger than average degree of connectedness, despite their seemingly absent impact on the immediate environmental uncertainties of one another. This research also identifies a strong connection between the petroleum and defense industries and government embodied by board members who previously served as government officials

For the petroleum industry to continue to produce record setting quarters, there must be a way to gain access to more petroleum reserves. One way to gain that access is to use military or covert operations, benefiting not only the defense and petroleum industries, but perhaps the state as well. The petroleum industry needs access to known reserves of crude petroleum, and the defense industry needs conflict to bolster contracts, while the strategy of the G.W. Bush Administration appears to have been the focused on the show of U.S. military strength to maintain world hegemony on the international stage. If we combine the interests of all three entities, the logical solution to secure the interests and

prosperity of all three is to engage in conflict in regions with known crude reserves and to maintain a military presence in those regions through an ever-expanding network of military bases (Johnson, 2006). Doing so protects the interests of integrated-energy firms, requires more defense contractor spending, and potentially demonstrates U.S. military strength and hegemonic power.

While the interests of these three entities may have been the driving motivation behind the invasion of Iraq, the actual outcomes of the invasion of Iraq resulted in a weakening of the U.S. in military and hegemonic terms. Furthermore, the profits of both the petroleum and defense industries indicated a significant increase after the U.S.-led invasion of Iraq, and this supports my hypothesis that conflict in oil-rich regions may justify the need to have a strong interlock in the interest of the reduction of environmental uncertainties because both petroleum and defense are strongly impacted by the volatility in oil-rich regions. Lastly, this data corroborates the prospects that because the invasion of Iraq supported the interests of the U.S. defense and petroleum industries, that these two industries may have, and may in the future, co-opt the state into military and/or covert actions that will benefit their interests.

5.2 Conclusions

Those executives in the petroleum and defense industries, and former and present officials in the U.S. government, such as those who appeared at the 2007 NCUSAR policymakers conferences, realize that their strategic interests go hand-in-hand, which may explain the stronger than average degree of connectedness between boards of the petroleum and defense industries, and their connections with the state. The evidence laid out in this study supports the conclusion that a real “Syriana,” may have been executed. This is an expression derived from the plot of the 2005 film, explaining an attempt to control the global oil market through corporate and government collusion, circumvention of the Clayton Act, and military and covert actions executed by the state. This real “Syriana” may have been executed through the relatively high frequency of interlocks between petroleum and defense in comparison with interlocks between other industries, the shared positions on military-driven U.S. foreign policy in petroleum-rich regions, and prima facie evidence of sponsorships and interests in the same policy conferences and events. Based on this, it is fair to conclude that corporate leaders in the petroleum and defense industry may be working together to ensure that their respective industries remain prosperous, aware that their success in this venture is largely dependent on this established mutual relationship.

As discussed in Chapter 2, capital and state may be adversaries, but these two entities need one another. The capitalist affords the state legitimacy, while the state can act as a proxy for the capitalist in calling for “the elimination of state

intervention in the economy and regulation by individual nation-states of the activities of capital and their territories” (Robinson, 2004, p. 79). This strategy allows the capitalists to gain access to previously restricted resources. In other instances, the state may even go to into conflict or support covert actions that will benefit the capitalist, which appears to have occurred in the cases of Venezuela and Iraq.

This study also found that resource-dependence theory may need to be expanded, because it does not consider the state as an exclusive entity, but rather considers it as a part of environmental uncertainty factors. The state is too powerful and is an entity separate from the corporate structure, and therefore should not be lumped together within the classification of “environmental uncertainties,” such as competition, suppliers, and the market. Rather, the state should be seen as a stand-alone individual entity within resource-dependence theory, as are organizations.

If the economic, hegemonic, and military success of the U.S. in the present time is directly tied to the success and interests of the petroleum and defense industries, then this arrangement is beneficial to the capitalists within these industries. Mills (1956) explains that arrangements such as these “permit an interchange of views in a convenient and more or less formal way” (p. 128). Indeed, these two industries have shared an interchange of views and common interests in more convenient and less formal ways, such as the 2007 NCUSAR

conference mentioned in Chapter 2 during which policymakers from the state catered to the petroleum and defense barons who sponsored and funded the event.

Justifications within organizational theory have frequently attempted to explain strong corporate board ties (Aldrich, 1979, Pennings, 1980), such as the impact that network factors and the “good-old boy” networks may play into some industries being more interlocked than others. However, this data from the standardized interlocks table along with qualitative data from this study highlight a more complex function than that of the simple “good-old boy” network. There may have been a concerted and calculated effort toward creating a strong connection between these two industries in the interest of influencing the state to engage in conflict in petroleum-rich regions.

While interlocks can reduce environmental uncertainty in some industries (Aldrich and Pfeffer, 1976, Pfeffer and Salancik, 1978, Pennings, 1980), the petroleum and defense industries have created a mutual dependence, but one that does not fit the framework of what are generally considered as industries affecting one another’s environment. A sizable portion of the world’s petroleum supply is located in geopolitical regions that have uncertain ties with the U.S. (British Petroleum, 2008) and thus, the exercise of military force has been a readily used option by the state, specifically the U.S. government, toward securing access to this vital resource. Elites from both industries have recognized the dependence of

their industry on the other, and thus, we find that interlocks between these two industries are commonplace.

The interlocking directorates between petroleum and defense discussed in this study have emboldened and strengthened the “military-industrial complex” by fusing together arguably the two most powerful industries in the world, and as I propose, have transformed the complex that Justice Brandeis warned against, and Dwight D. Eisenhower elucidated, into a new complex, the defense-petroleum-policy complex. The emergence of the private defense sector, which provides everything from tanks, weaponry, to actual on-ground troops, has altered the U.S. military as an institution. World demand for petroleum grows as nations such as China and India rapidly develop, suggesting that the 21st century will be marked by an increase in oil-based conflicts as states struggle to procure this resource that is in their vital interest.

The agendas of the petroleum and defense industries, as of recent times, have been nearly identical, and if policymakers pander to the interests of this unmitigated consolidation of economic power this will spell grave dangers for the future of core-periphery relations. For example, there is the potential for a wider militarization of the Middle East and other oil rich regions, as it appears that U.S. military bases in Iraq are set to become permanent fixtures (Washington Post, 2008). The expansion of military bases has been shown by military historians to result in the dilution of actual military power (Johnson, 2006). Furthermore, the

presence of U.S. military in the Middle East could mean greater threats of terrorism on U.S. soil, as it has been argued that increased U.S. militarism in foreign regions has resulted in repeated “blowbacks” to the U.S. (Johnson, 2004), and that the attacks of September 11th, 2001 are an example of a “blowback” experienced because of the U.S. militarization of the Middle East during the 1990s.

5.3 Recommendations

With the defense industry becoming highly privatized and companies such as Xe and DynCorp even forming privatized militaries that can be contracted by the Department of Defense, another potential danger emerges: the private defense sector is a capitalist entity that has capitalist goals, and the end goal of the capitalist is the maximization of profit. The defense sector has transitioned to being not only associated with the state, but is now becoming industrialized and increasingly capitalist in nature. The money that the U.S. government pays defense firms assists these companies in developing greater and more destructive weaponry that, under capitalist competition, will go the highest bidder. For now, U.S. defense contractors focus almost entirely on selling their products and services to the U.S. government and her allies, but if U.S. military spending should ever plummet, it is the capitalist duty of these defense contractors to seek

contracts and this may mean that they will sell weaponry and technologies to adversaries of the U.S. as these defense contractors can only prosper or sustain through contracts to provide military services.

There are moral concerns as well, for example, should the well-funded LTTE in Sri Lanka contract a company like Xe to assist in fighting the Sri Lankan Army, or vice-versa. While a situation like this may not be conceivable at the present time, the use of PSCs by private corporations to protect their interests, and by the U.S. government in Iraq, has essentially opened the way for these U.S.-based companies to become part of non-U.S. conflicts.

For example, PSCs like Xe, which function as a private military, are composed of mostly former U.S. troops who receive their first training in warfare in the U.S. military, then join Xe and receive further training. While there are legal regulations in place by the U.S. government that do not allow former military personnel to serve in a military capacity for another nation, with the globalizing economy and the “flattening” of worldwide markets (Friedman, 2005), the prospering of companies such as Xe by the U.S. government could come back to haunt it should the state lose the legitimacy on enforcing its codes and regulations in the event that a full collapse of the monetary market occurs (Habermas, 1975). The U.S. must become vigilant of the dangers associated with a privatized defense industry in the face of globalizing markets.

Furthermore, the economic collapse of 2008 that has continued into 2009 can be in part blamed by the exorbitant petroleum prices that began in 2005 and reached a peak in the summer of 2008. These developments, many analysts contend, are key reasons for the financial collapse, along with irresponsible lending on the part of the banking institutions. As petroleum prices did skyrocket, few attempts were made by lawmakers to regulate the market speculators that were artificially inflating the market price of crude petroleum, and one could argue that this did not occur because petroleum firms used their strong network with the state to prevent them from intervening in the market speculation as petroleum firms were consecutively posting record quarterly earnings.

Future research on this topic may benefit from looking at defense contracts that have been awarded through earmarks to see which Congress members designated those earmarks and whether they have a notable connection to someone seated on that board of directors of the defense firm that has been awarded a contract (i.e. served on the same House or Senate committee, representatives from the same State, co-authored a bill together, attended the same university, etc.). As Domhoff (2005) suggests, “if there is any doubt that the corporate community has a large impact, to the point of capture, on the advisory committees in the Department of Commerce, it should be dispelled by research

showing that they played a key role in formulating the North American Free Trade Agreement (NAFTA) for presentation to Congress.”³³

This study could also be strengthened by doing an analysis over time to see which contractors the Department of Defense has relied on most over a period such as last two decades, and what differentiates these primary firms from other defense firms, for example, evaluating the corporate board makeup and regional proximity to policymakers. It is important to note that the corporations are ever-evolving and their strategies, operations, and even services can change or be transformed entirely. Therefore, it is important to assess and control for these variables in studying corporations over time.

In summation, the findings in this study point to the prospects that the motives of the association between the petroleum and defense industries may be the coalescence of power of by the executives of the petroleum and defense industries, with the objective to co-opt the state. While this strategy appears to have benefited the petroleum and defense industries with the invasion of Iraq, the current situation shows that it may have been counterproductive to the interests of the state. With the state holding the monopoly over the use of force, the difficulties that Iraq posed for the U.S. government and military may mean the U.S. will be less likely to engage in conflict in the future for the procurement of

³³ Domhoff cites (Dreiling, 2001) in this passage.

vital resources, the benefit of U.S. industries, and the demonstration of military hegemony.

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