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**NAVAL
POSTGRADUATE
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MONTEREY, CALIFORNIA

THESIS

**U.S. –VIETNAM MILITARY RELATIONS: GAME
THEORY PERSPECTIVE**

by

Ngan M. Kim

June 2012

Thesis Advisor:
Second Reader:

Casey Lucius
Frank Giordano

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U.S.-VIETNAM MILITARY RELATIONS: GAME THEORY PERSPECTIVE

Ngan M. Kim
Major, United States Army
B.A., East Carolina University, 1997

Submitted in partial fulfillment of the
requirements for the degree of

MASTER OF SCIENCE IN DEFENSE ANALYSIS

from the

**NAVAL POSTGRADUATE SCHOOL
June 2012**

Author: Ngan M. Kim

Approved by: Dr. Casey Lucius
Thesis Advisor

Dr. Frank Giordano
Second Reader

Dr. John Arquilla
Chair, Department of Defense Analysis

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ABSTRACT

In recent years, China has been flexing its military power and strengthening its claim to the resource-rich Spratly and Paracel Islands in the South China Sea. These islands are also being claimed by five other countries: Brunei, Malaysia, the Philippines, Taiwan, and Vietnam. Currently China claims the entire South China Sea as its territorial waters. The U.S. has great interest in this issue because its trade routes with the Asia-Pacific region go through the South China Sea. Throughout history, Vietnam and China have had a contentious relationship. Like China, Vietnam is currently modernizing its military and strengthening its claims to the South China Sea. Of the claimants to the South China Sea, Vietnam seems to be the only country that is willing to challenge Chinese assertiveness in the region. Since the normalization of relations between the United States and Vietnam, the two former enemies have become important trading partners. The United States and Vietnam are conducting yearly high-level military visits; however, the U.S. wants to take this relationship to the next level. This thesis will apply game theory and analyze whether the U.S. can influence Vietnam to open a more formal military relationship to counterbalance the assertiveness of China in the South China Sea. This thesis concludes that, from the game theoretic Strategic Moves perspective, the U.S. currently cannot apply threats, promises, or a combination thereof to compel or coerce Vietnam toward a more formal military alliance to counterbalance the assertiveness of China in the South China Sea.

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TABLE OF CONTENTS

I.	INTRODUCTION.....	1
A.	BACKGROUND.....	1
B.	PURPOSE AND OBJECTIVE.....	3
C.	RESEARCH QUESTION.....	4
D.	HYPOTHESIS.....	4
E.	METHODOLOGY.....	4
F.	LIMITATION.....	5
G.	CHAPTER REVIEW.....	5
II.	HISTORICAL RELATIONSHIPS.....	7
A.	INTRODUCTION.....	7
B.	U.S.-VIETNAM BILATERAL RELATIONSHIP.....	9
	1. U.S.-Vietnam Diplomatic Relations.....	9
	2. U.S.-Vietnam Economic Relations.....	12
	3. U.S.-Vietnam Security Relations.....	13
	4. U.S. Interests and Goals in the Relationship.....	14
	5. Vietnam’s Interests and Goals in the Relationship.....	15
C.	CHINA-VIETNAM BILATERAL RELATIONSHIP.....	16
	1. China-Vietnam Diplomatic Relations.....	17
	2. China-Vietnam Economic Relations.....	20
	3. China-Vietnam Security Relations.....	21
	4. China’s Interests and Goals in the Relationship.....	22
	5. Vietnam’s Interests and Goals in the Relationship.....	22
D.	VIETNAM VITAL INTERESTS.....	23
E.	CONCLUSION.....	23
III.	CHINA AND VIETNAM CONFLICTING CLAIMS IN THE SOUTH CHINA SEA.....	25
A.	INTRODUCTION.....	25
B.	THE OVERLAPPING CLAIMS TO THE SOUTH CHINA SEA.....	28
C.	THE CHINESE CLAIM.....	30
D.	THE VIETNAMESE CLAIM.....	30
E.	FACTORS RESPONSIBLE FOR THE DISPUTE.....	31
F.	MILITARY CLASHES.....	32
G.	DISPUTE SETTLEMENTS.....	33
H.	CONCLUSION.....	33
IV.	GAME THEORY.....	35
A.	INTRODUCTION.....	35
B.	THE NATURE OF THE GAME.....	35
C.	STRATEGIC MOVES.....	38
	1. First Move.....	38
	2. Threat.....	41
	3. Promise.....	43

4.	Combination of Threats and Promises	45
D.	ANALYSIS OF U.S.-VIETNAM MILITARY ALLIANCE.....	46
E.	CONCLUSION	55
V.	CONCLUSION AND RECOMMENDATIONS.....	57
	LIST OF REFERENCES.....	61
	INITIAL DISTRIBUTION LIST	67

LIST OF FIGURES

Figure 1.	Conflicting Claims in the South China Sea (From:)	27
Figure 2.	China's Claim to the South China Sea	29
Figure 3.	Game Theory Strategies Matrix	36
Figure 4.	Game Theory Payoffs Matrix	37
Figure 5.	First Move	39
Figure 6.	First Move	40
Figure 7.	Threat	41
Figure 8.	Threat	43
Figure 9.	Promise	44
Figure 10.	Promise	45
Figure 11.	Combination of Threat and Promise	46
Figure 12.	U.S.-Vietnam Cooperation	47
Figure 13.	U.S.-Vietnam Military Alliance	47
Figure 14.	U.S.-Vietnam Military Alliance Payoff Matrix	49
Figure 15.	U.S.-Vietnam Relations Modified Game	50
Figure 16.	Interval Scaling	53
Figure 17.	U.S.-Vietnam Relations with Cardinal Values	54

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LIST OF TABLES

Table 1. Conflicting Claims in the South China Sea (From:).....27

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LIST OF ACRONYMS AND ABBREVIATIONS

APEC	Asia Pacific Economic Cooperation
ASEAN	Association of Southeast Asian Nations
BTA	Bilateral Trade Agreement
CIA	Central Intelligence Agency
CMEA	Council for Mutual Economic Assistance
DIME	Diplomatic, Information, Military, and Economic
DOC	Declaration on the Conduct of Parties in the South China Sea
EEZ	Exclusive Economic Zone
FTA	Free Trade Agreement
GSP	Generalized System of Preferences
OSS	Office of Strategic Services
PLA	People Liberation Army
PNTR	Permanent Normal Trade Relations
POW/MIA	Prisoners of War/Missing in Action
PRC	People's Republic of China
TPP	Tran-Pacific Partnership Agreement
UN	United Nations
UNCLOS	United Nations Convention on Law of the Sea
U.S.	United States
VCP	Vietnamese Communist Party
VPA	Vietnam People's Army
WTO	World Trade Organization

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I. INTRODUCTION

A. BACKGROUND

In the last few years, China has been flexing its military power and strengthening its claim on the resource-rich Spratly and Paracel Islands in the South China Sea. These islands are also being claimed by five other countries: Brunei, Malaysia, the Philippines, Taiwan, and Vietnam.¹ The U.S. has great interest in this issue because its trade routes with Southeast Asia go through the South China Sea. For Vietnam, the South China Sea holds historical ties and economic opportunities. According to Vietnam, it has the longest claim to the islands; court records show that the Spratly and Paracel archipelagoes were considered to be Vietnam's territory during the reign of King Le Thanh Tong from (1406–1497). Economically, the South China Sea is estimated to contain as much as 17.7 billion tons of oil, larger than those of Kuwait.

Throughout history Vietnam and China have had contentious relations. In recent history, the two neighboring countries fought a major war in 1979 when approximately 100,000 Chinese troops crossed into Vietnam in an attempt to teach the Vietnamese a lesson for invading Cambodia. Having gained experience from the war against the U.S. and with weapons supplied by the Soviet Union, the Vietnamese were able to push back the Chinese invaders. However, with the collapse of the Soviet Union, Vietnam lost its key supporter. After having suffered economic devastation as a result of war with the U.S. and intervention in Cambodia, and in combination with the collapse of the Soviet Union in 1991, Vietnam started to form closer ties with China. Sino-Vietnam relations continued to steadily improve until the U.S. lifted its trade embargo against Vietnam in 1994.²

¹ Walter Lohman, "Sorting American Priorities in the South China Sea." WebMemo, Published by The Heritage Foundation, No. 3297, June 20, 2011, <http://report.heritage.org/wm3297>, (accessed July 1, 2011); Mark J. Valencia, "Foreign Military Activities in Asian EEZs: Conflict Ahead?" The National Bureau of Asian Research, NBR Special Report #27 (May 2011), www.nbr.org, (accessed June 3, 2011).

² William Ratliff, *Vietnam Rising: Culture and Change in Asia's Tiger Cub*. The Independent Institute, Oakland, CA, 2008.

Since the normalization of diplomatic relations between the U.S. and Vietnam in 1995, the two former enemies have become important trading partners. Today Vietnam has Permanent Normal Trade Relations (PNTR) with the U.S. and the U.S. was instrumental in Vietnam being accepted into the World Trade Organization (WTO) in 2007. By 2010, the U.S. had become Vietnam's second largest trading partner with \$18.6 billion in trade. However, China was Vietnam's largest trading partner in 2010 with \$20.5 billion.³

To the current leaders of Vietnam, Sino-Vietnamese relations are still Vietnam's most important bilateral relationship.⁴ Vietnamese leaders must tiptoe carefully along the tightrope between Washington and Beijing, such that improved relations with one capital will not be perceived as a threat to the other.⁵ Also, some Vietnamese remain suspicious that the United States' long-term goal is to erode the Vietnamese Communist Party's (VCP) monopoly on power.⁶ However, with China's ambition of increasing the capabilities of its navy to include aircraft carriers and the recent clash between a Vietnamese oil exploration vessel and a Chinese fishing boat, tensions are rising between the two countries. The increasing tensions resulted in anti-Chinese protests in Vietnam and continued with each country conducting live-fire exercises in the South China Sea.⁷

³ Carlyle A. Thayer, "Vietnam-US Relations: A Scorecard." *Asia Pacific Bulletin*, Number 67, September 14, 2010. East-West Center, www.EastWestCenter.org (accessed June 10, 2011); Nguyen Manh Hung, "Vietnam-US Relations: Past, Present, and Future." *Asia Pacific Bulletin*, Number 69, September 24, 2010. East-West Center, www.EastWestCenter.org (accessed June 10, 2011).

⁴ Alexander L. Vuving, "Strategy and Evolution of Vietnam's China Policy: A Changing Mixture of Pathways." *Asian Survey*, Vol. 46, No. 6 (November/December 2006), 805–824. Published by: University of California Press, <http://www.jstor.org/stable/10.1525/as.2006.46.6.805> (accessed May 6, 2011).

⁵ Andrew J. Pierre, "Vietnam's Contradictions." *Foreign Affairs*, Vol. 79, No. 6 (Nov.–Dec., 2000), 69–86. Published by: Council on Foreign Relations, <http://www.jstor.org/stable/20049968> (accessed May 6, 2011).

⁶ Frederick Z. Brown, "Rapprochement Between Vietnam and the United States." *Contemporary Southeast Asia* Vol. 32, No. 3 (2010), pp. 317–42; Hoang Tuan Anh, "Rapprochement Between Vietnam and the United States: A Response." *Contemporary Southeast Asia* Vol. 32, No. 3 (2010), 343–49; Lewis M. Stern, "U.S.-Vietnam Defense Relations: Deepening Ties, Adding Relevance." *Strategic Forum*, No. 246, September 2009, Institute for National Strategic Studies, <http://www.ndu.edu/inss> (accessed May 12, 2011).

⁷ Patrick Barta. "U.S., Vietnam in Exercises Amid Tensions With China," *Wall Street Journal (Online)* [New York, N.Y.] 16 July 2011.

In 2010, the Obama Administration indicated its intent to take relations with Vietnam to the next level, and cooperate with Vietnam to coordinate a multi-country diplomatic push back against perceived Chinese encroachment in the South China Sea. The U.S. wants to compel Vietnam toward a more formalized relationship like it has with other long-term allies in the region, such as South Korea, Thailand, Japan, the Philippines, Singapore, and Australia. Also recognizing that with the largest military in Southeast Asia, Vietnam is a critical partner in preventing a Chinese hegemony. But for its part the Vietnamese have refused to formalize any military-to-military relationship with the United States.

B. PURPOSE AND OBJECTIVE

The purpose of this study is to apply game theory to analyze if the U.S. can compel or influence Vietnam toward a more formal military relationship to counterbalance the increasing presence of the Chinese military in the South China Sea. There are many factors involved in this comprehensive relationship between the three countries, namely the elements of national power: Diplomatic, Information, Military, and Economic (DIME). While recognizing that the application of all elements of national power is important in international relations, this thesis will focus on the military aspect of the relationship between the U.S. and Vietnam from a game theoretic perspective. This essay will focus on the military element of power because according to John Mearsheimer, China's rise will not be peaceful; in its rise China will engage in security competition with the U.S.⁸ Moreover, China recently launched an aircraft carrier in the South China Sea and is planning to build a carrier battle group. Vietnam also has plans to upgrade its submarine brigade due to recent increased tensions with China in the South China Sea.⁹

⁸ John J. Mearsheimer, "The Gathering Storm: China's Challenge to US Power in Asia." *The Chinese Journal of International Politics*, Vol. 3, 2010; "China's Unpeaceful Rise," *Current History*, Vol. 105, No. 690 (April 2006), 160–162; "The Rise of China will Not Be Peaceful at All," *The Australian*, November 18, 2005.

⁹ Carlyle A. Thayer, "Vietnam People's Army: Development and Modernization," Research Monograph, Sultan Haji Bolkiah Institute of Defence and Strategic Studies, August 23, 2009.

There are numerous historical texts and recent articles that have been written on the complexity of the relationship between the U.S. and Vietnam. Scholars have offered conflicting solutions as to how the U.S. can counterbalance the increasing assertiveness of China in the South China Sea, where the U.S. has core national interests. However, none of the literature has examined the U.S.-Vietnam military relationship from the game theory perspective. This thesis will help fill that literature gap for academics and policy makers.

C. RESEARCH QUESTION

From the game theoretic perspective, can the U.S. influence Vietnam to open a more formal military relationship to deter the increasing assertiveness of China in the South China Sea?

D. HYPOTHESIS

The rise of China will not likely be peaceful; in its rise China will engage in security competition with the United States.

Vietnam's geostrategic importance, its history of military conflicts with China, and its current rising tensions with China in the South China Sea offer opportunities for an enhanced military-to-military relationship with the United States.

Even when these conditions are properly incentivized, it will not be possible that Vietnam can be induced to seek a more formal military relationship with the United States.

E. METHODOLOGY

This thesis will begin with a review of the history of Vietnam-China relations, the Vietnam-U.S. relations, and the recent disputes in the South China Sea. I will argue that based on historical data, we can predict that the U.S. cannot compel Vietnam toward a more formalized military relationship. I will use game theory, specifically Strategic Moves, to test these predictions.

Game theory has proven to be a useful tool to analyze the interactions between participants or actors in economics, politics, psychology, and international relations. The objective of the game is to examine the relationship between the U.S. and Vietnam not from a zero sum, total conflict, and winner takes all perspective, but to find a win-win solution for both countries. In this study, I will use Strategic Moves¹⁰ to investigate if the U.S. can use any threats, promises, or the combination of both to coerce or compel Vietnam toward a more formalized military-to-military relationship.

F. LIMITATION

One flaw in using game theory is the assumption that the players are rational actors; in reality, decision makers do not always act and behave in a rational manner. We seldom know for sure what each actor is thinking in any given situation or what personal biases influences his or her decision. Furthermore, the actor's actual goals and objectives may differ from the predicted or assumed values utilized in setting up the game theory model.

Although we will examine the historical relations between the United States - Vietnam and China - Vietnam, when it comes to the game theory analysis, this thesis will only focus on a two by two (2x2) decision matrix of Strategic Moves between the U.S. and Vietnam. This game of Strategic Moves will provide valuable insight into possible threats and promises that the U.S. can use to compel or coerce Vietnam into a formal military alliance. However, there are other game theory models such as Cooperative Solutions¹¹ and Three-Person Games¹² that can also be used to analyze the complex relationships between these three countries.

G. CHAPTER REVIEW

The remainder of this thesis is organized as follows: Chapter II examines the history of Vietnam-China relations and the history of Vietnam-U.S. relations. Chapter III

¹⁰ Game theory's Strategic Moves will be explained in Chapter 4. Philip D. Straffin, *Game Theory and Strategy*. Mathematical Association of America. Washington, DC, Fifth Printing 2004.

¹¹ Straffin, *Game Theory and Strategy*, 102–111.

¹² *Ibid.*, 127 –138.

studies the Vietnamese and Chinese conflicting claims over the South China Sea and possible implications for the U.S. national interests. Chapter IV introduces the game theory methodology and applies this method to understand the U.S.-Vietnam military relations. Chapter V concludes this study and offers policy recommendations for future management of the U.S.-Vietnam formal military relations.

II. HISTORICAL RELATIONSHIPS

*A thousand years of Chinese rule, a hundred years of French subjugation, and ten years of American domination, but we survived, unified.*¹³ -Vietnamese proverb

Distant water cannot put out a nearby fire. -Chinese proverb

A. INTRODUCTION

The rapid economic growth of China in the last three decades has given it much power and confidence. With its new wealth, China has increased its military budget and taken dramatic steps to modernize its armed forces. China is becoming more and more assertive in the Asia Pacific region, specifically in the South China Sea. This new assertiveness by China is worrisome to its neighbors, especially Vietnam, which is an important actor in the region. The United States is also a key player in the region and views China's growing importance with both interest and concern. Washington has made it clear that freedom of navigation in the South China Sea is in its national interest. For example, in his address to the Australia's parliament on 17 November 2011, President Barack Obama stated that the United States' "presence and mission" in the Asia Pacific is a "top priority." He went on to say that future budget reductions will not come at the expense of the United States' strong military in the Asia Pacific. He stated that "the United States is a Pacific power and we are here to stay."¹⁴ In this context, U.S.-Vietnam relations have improved tenfold in the last decade and recently Vietnam has joined with the U.S. in challenging Chinese assertiveness in the South China Sea.

In its long history, Vietnam has gone through times when it had friendly relations with China and the United States, while at other times it has gone to war with both the former and the latter. This chapter will analyze the historical relationships between the United States and Vietnam, and China and Vietnam. In analyzing these relationships, this chapter will look for factors that will answer the question: can Hanoi be encouraged (or

¹³ Andrew X. Pham, *Catfish and Mandala: A Two-Wheeled Voyage through the Landscape and Memory of Vietnam*, Picador, New York, 1999, 282.

¹⁴ White House Press Release. "President Obama's Remarks at the Australian Parliament," November 17, 2011. <http://www.whitehouse.gov/the-press-office/2011/11/17/remarks-president-obama-australian-parliament> (accessed March 3, 2012).

compelled) toward a more formal military alliance with Washington that will help balance the aggressiveness of China in the South China Sea. This chapter will look first at the history of the Sino-Vietnam relationship and then turn to an analysis of the U.S. - Vietnam relationship. In order to better understand these relationships, this chapter will analyze the interactions of the countries with a focus on diplomatic, economic, and security relations. I will examine the interests and goals of each country in these relationships. For example, in analyzing the U.S.-Vietnam relationship, I will identify the American goals and interests and then identify the goals and interests of the Vietnamese. In the Sino-Vietnamese relationship, I will identify the goals and interests of the Chinese and those of the Vietnamese. I will then identify the national goals and vital interests of the Vietnamese government. Finally, I will analyze the goals and interests of the U.S. and China against the national goals and vital interests of the Vietnamese; and in comparing the goals and interests of the United States and China against the Vietnamese vital interests, we will discover which country has more influence on the Vietnamese ruling elites. In the subsequent Game Theory Chapter, I will use the goals and interests of the United States and China and set them up against the Vietnamese vital interests; this will validate that the U.S. cannot at this time or in the near future compel Vietnam toward a formal military alliance.

By the end of this chapter it will be clear that the relationship between the United States and Vietnam has dramatically improved since the normalization of diplomatic relations between the two countries in 1995. At the same time there have been recent conflicts between China and Vietnam in the South China Sea. It will also be clear that despite the improvement in relations, there is nothing to indicate that the U.S. will be able to formalize its military relations with Vietnam. The United States therefore cannot undermine the influence of China in the South China Sea region through a mutual security agreement or a formal military alliance with Vietnam. This chapter argues that currently, the vital interests of the Vietnamese as determined by its communist leaders are still more closely aligned with China than the United States. Moreover, with the geographic proximity between Vietnam and China, it may be very difficult for the U.S. to weaken the Chinese influence on Vietnam, although not impossible.

B. U.S.-VIETNAM BILATERAL RELATIONSHIP

The relationship between the United States and Vietnam dates back to the Nineteenth Century when the Nguyen Dynasty sent Bui Vien to Washington, D.C. in 1873 to request diplomatic recognition, however, the emissary failed to secure a meeting with President Ulysses S. Grant.¹⁵ During World War II, the U.S. Office of Strategic Services (OSS) Deer Team Mission, the precursor of the CIA, was sent to help train Ho Chi Minh's and Vo Nguyen Giap's forces in the jungles of Northern Vietnam. Of note, the first American killed in Vietnam was Lieutenant Colonel Peter Dewey of the OSS, assigned to Saigon in 1945; he was accidentally killed in a Vietminh ambush.¹⁶ More importantly, when Ho Chi Minh declared Vietnam's independence in Hanoi, on September 2, 1945, he quoted liberally, from the U.S. Declaration of Independence; according to Stanley Karnow, an OSS officer supplied Ho Chi Minh with the text.¹⁷ Much has been written on how the U.S. got involved in Vietnam, how it got caught in the quagmire of the Vietnam War, and its humiliating defeat by the North Vietnamese. However, for the purpose of relevancy this chapter will focus mostly on the relationship after the fall of U.S.-backed South Vietnam to communist North Vietnam in 1975.

1. U.S.-Vietnam Diplomatic Relations

After the fall of Saigon, relations between the newly unified communist Vietnam and the United States were nonexistent. Immediately after 1975 the Vietnamese demanded postwar reconstruction aid that they claimed had been promised to them by the Nixon Administration (1969–1974). However, in 1978 Hanoi dropped its demands and sought to normalize relations with the United States. The United States refused to recognize Vietnam, maintaining a trade embargo, and demanding that Vietnam withdraw its forces from Cambodia. Washington demanded Hanoi for a full accountability of the

¹⁵Hoang Anh Tuan, "Rapprochement between Vietnam and the United States: A Response." *Contemporary Southeast Asia: A Journal of International and Strategic Affairs* 32, no. 3 (2010): 344.

¹⁶ Stanley Karnow, *Vietnam: A History*, Penguin Books, New York, NY, second edition, 1997, 140.

¹⁷ Karnow, *Vietnam: A History*, 141; Pham, *Catfish and Mandala*, 229.

U.S. Prisoners of War/Missing in Action (POW/MIAs).¹⁸ Vietnam did not comply for several reasons; one reason was because Vietnam was in conflict with China in 1979 over the harsh treatment of ethnic Chinese; another reason was because Vietnam intervened in Cambodia and the U.S. was starting to have friendly relations with China. Furthermore, to exacerbate the problem, Vietnam aligned itself militarily and economically with the Soviet Union. By the mid-to late late-1980s, however, several events started Vietnam and the U.S. down the road of normalization of relations.

After disastrous economic conditions and diplomatic isolation, and being on the verge of collapse, the Vietnamese Communist Party (VCP) at its Sixth National Congress in 1986 adopted “doi moi” or “renovation,” market-oriented economic reforms. Vietnam eased domestic political controls, and started to pull its forces out of Cambodia.¹⁹ With the collapse of its only superpower sponsor in 1991, Vietnam lost its negotiating position against the United States. According to Frederick Brown,

The six-year period, 1989–95, saw momentous changes in the global power structure, and by April 1991 the United States held an enormous strategic advantage in normalizing negotiations with Vietnam. With the collapse of the Soviet Union, US policy-makers actually did not pay much attention to Vietnam, except for Cambodia and the Missing in Action/Prisoner of War (MIA/POW) issue. In 1991, Washington presented Hanoi a plan (the “road map”) for a four-stage process of mutual confidence-building measures that would give the Vietnamese political and economic benefits in return for cooperation on the United Nations-sponsored peace settlement in Cambodia. The road map unequivocally outlined what Vietnam had to accept as a practical basis for moving incrementally towards full diplomatic relations and modification or removal of sanctions.²⁰

On July 11, 1995, President Bill Clinton finally announced the formal normalization of diplomatic relations between the United States and the Socialist Republic of Vietnam. U.S.-Vietnamese relations quickly grew and have become

¹⁸ Mark E Manyin, “U.S.-Vietnam Relations in 2010: Current Issues and Implications for U.S. Policy,” *Congressional Research Service*, August 6, 2010, http://assets.opencrs.com/rpts/R4028_20200806 (accessed March 3, 2012), 3–4.

¹⁹ *Ibid.*

²⁰ Frederick Z. Brown, “Rapprochement between Vietnam and the United States.” *Contemporary Southeast Asia: A Journal of International and Strategic Affairs* 32, no. 3 (2010): 319.

increasingly cooperative and broad-based. The two countries conducted a series of bilateral summits that have helped build closer ties. Most notable, in 1997 President Clinton appointed the first post-war ambassador to Vietnam and in 2000 signed the landmark U.S.-Vietnam bilateral trade agreement (BTA). President Clinton visited Vietnam in November 2000, the first U.S. President to travel to Vietnam since Richard Nixon in 1969. During his visit, there was an unexpected outpouring of enthusiasm by the ordinary Vietnamese who came out by the thousands to greet the President and the First Lady. It is important to note, however, that the spontaneous outbursts coupled with President Clinton's comments about democracy and human rights raised some concerns from the more conservative communist Vietnamese leaders. The Vietnamese leaders for their part, continued to press the U.S. for compensation for Agent Orange victims, for help in locating the remains of their own soldiers still missing from the war, and for more economic assistance.²¹

Diplomatic relations continued to move forward under the George W. Bush Administration. The two countries exchanged high level visits to include President Bush's visit to Hanoi in November 2006, President Triet's visit to Washington D.C. in June 2007, Prime Minister Dung's visits to Washington D.C. in June 2008 and April 2010, Secretary of State Hillary Clinton's visits in July and October 2010, Secretary of Defense Robert Gates' visit in October 2010, and President Truong Tan Sang's visit to Hawaii for the Asia Pacific Economic Cooperation (APEC) meetings in November 2011.²² In one of her visits to Hanoi in 2010, Secretary Clinton expressed the new U.S. attention on Vietnam when she stated that "the Obama Administration is prepared to take the U.S.-Vietnam relationship to the next level... We see this relationship not only as important on its own merits, but as part of a strategy aimed at enhancing American engagement in the Asia Pacific and in particular Southeast Asia."²³

²¹ Manyin, "U.S.-Vietnam Relations in 2010," 4-5.

²² Ibid., 5; U.S. State Department, *Background Note: Vietnam*, January 12, 2012, <http://www.state.gov/r/pa/ei/bgn/4130.htm> (accessed March 14 2012).

²³ U.S. Department of State, "Secretary of State Hillary Rodham Clinton Remarks with Vietnam Deputy Prime Minister and Foreign Minister Pham Gia Khiem," Government Guest House, Hanoi, Vietnam, July 22, 2010.

2. U.S.-Vietnam Economic Relations

Bilateral trade and investment is the “bread and butter” of the new U.S.-Vietnam relationship. According to Frederick Brown, it was American business interests in the 1980s that was the catalyst for U.S.-Vietnamese relations.²⁴ The U.S.-Vietnam bilateral economic relationship occurred in two steps. The first step was from political normalization in July 1995 to the signing of the BTA at the end of 2001 which granted normal trade relations (NTR) status to Vietnam. The second step was from the BTA to Vietnam receiving permanent normal trade relations (PNTR) status with the U.S., and Vietnam’s acceptance into the World Trade Organization (WTO) in January 2007. Through it all the government of Vietnam has overcome many obstacles from drafting laws and regulations regarding its economic system such as the state-owned enterprises (SOE), to dealing with human rights and religious freedom.²⁵ The determination and efforts on both the Vietnamese and the U.S. sides were rewarded on January 11, 2007, when Vietnam was welcomed into the WTO as its 150th member.

Since the U.S.-Vietnam Bilateral Trade Agreement was signed on December 10, 2001, bilateral trade between the United States and Vietnam has expanded dramatically, rising from \$2.97 billion in 2002 to \$18.6 billion in 2010.²⁶ The U.S. is Vietnam's second-largest trade partner overall (after China). In 2010, the United States exported \$3.7 billion in goods to Vietnam and imported \$14.9 billion in goods from Vietnam.²⁷ Similarly, U.S. companies continue to invest directly in the Vietnamese economy. During 2009, the U.S. private sector committed \$9.8 billion to Vietnam in foreign direct investment.²⁸ More importantly as noted by Brown, “As part of BTA implementation, Vietnam agreed to allow greater liberalization of its services sectors, including financial

²⁴ Brown, “Rapprochement between Vietnam and the United States,” 321.

²⁵ Ibid., 322–324; Michael F. Martin, “U.S.-Vietnam Economic and Trade Relations: Issues for the 112th Congress,” *Congressional Research Service*, April 5, 2011, http://assts.opencrs.com/rpts/R41550_2011129 (accessed March 3, 2012).

²⁶ U.S. State Department, *Background Note: Vietnam*, January 12, 2012, <http://www.state.gov/r/pa/ei/bgn/4130.htm> (accessed March 14 2012).

²⁷ U.S. State Department, *Background Note: Vietnam*, January 12, 2012, <http://www.state.gov/r/pa/ei/bgn/4130.htm> (accessed March 14 2012).

²⁸ Ibid.

services, telecommunications and express delivery. Vietnam has committed to allowing 100 per cent foreign ownership of securities firms and express delivery service providers by 2012.”²⁹

Even though the U.S.-Vietnamese economic relationship has come a long way, there are still many issues to be worked out. Both the United States and Vietnam are negotiating membership in the multilateral trade group, the Trans-Pacific Strategic Economic Partnership Agreement (TPP). The Vietnamese for their part have expressed a desire to form closer trade relations with the Americans; Vietnam applied for acceptance into the U.S. Generalized System of Preferences (GSP) program. Although the program is now lapsed, however, Congress has the option of renewing it.³⁰ The Vietnamese government eventually would want a free trade agreement (FTA) with the United States, however, according to a Congressional Research Service report,

The growth in trade has also created sources of trade friction. A rapid increase in Vietnam’s clothing exports to the United States led to the implementation of a controversial monitoring program from 2007 to 2009. The growth in Vietnam’s export of basa and tra has also generated tensions between the two nations. Other economic issues have had an indirect effect on bilateral relations, such as claims of poor working conditions in factories in Vietnam, Vietnam’s designation as a “non-market economy,” allegations of inadequate intellectual property rights (IPR) protection in Vietnam, and Vietnam’s exchange rate policy.³¹

3. U.S.-Vietnam Security Relations

During the early years, legacy issues such as UXO/demining, MIA accounting, and Agent Orange provided the foundations for the U.S.-Vietnam defense relationship. In their annual bilateral defense discussions, the U.S. and Vietnam expressed mutual interests in addressing the challenges of humanitarian assistance/disaster relief, search and rescue, and maritime security. These talks have allowed the defense relationship to accelerate in the past few years and have resulted in Vietnam participating in U.S.-provided capacity-building training in these areas. In August 2010, a delegation of senior

²⁹ Brown, “Rapprochement between Vietnam and the United States,” 324.

³⁰ Martin, “U.S.-Vietnam Economic and Trade Relations,” 3.

³¹ Ibid.

Vietnamese civilian and military officials participated in a fly-out to the USS George Washington, CVN in international waters off the coast of Vietnam just prior to the USS John S. McCain, DDG visit to Danang, Vietnam. In July 2011, another delegation of government and military officials participated in a fly-out and tour aboard the USS George Washington aircraft carrier. Other U.S. Navy visits in 2011 included the first U.S. military ship visit to Cam Ranh Bay in over three decades, when the USNS Richard E. Byrd entered the port for maintenance and repair in August 2011; the USNS Diehl followed for routine maintenance and repair in October.³² Also in 2011, Vietnam's Ministry of Defense for the first time sent Vietnamese officers to U.S. staff colleges and other military institutions. As noted by Carlyle Thayer, an expert in Vietnamese military matters, U.S.-Vietnam military-to-military activities such as peacekeeping, environmental security, multilateral search and rescue coordination, and regional disaster response will enhance the professionalism of the Vietnamese military.³³ It is important to mention that Thayer also noted, "In a sign of the degree to which Vietnamese leaders calibrate their ties to the United States with Sino-Vietnamese relations, 2010 also represented the first year that the Vietnamese navy made its port call to China, and for the first time China and Vietnam held their first seaborne search and rescue exercise."³⁴ Professionalizing its military is a goal of the Vietnamese government; the United States for its part, also has goals and interests in the U.S.-Vietnam bilateral relationship.

4. U.S. Interests and Goals in the Relationship

Major U.S. interests in the bilateral relationship are increasing trade and investment flows, representing the 1.8 million ethnic Vietnamese in the United States, moving forward the legacy of the Vietnam War, increasing interaction through multilateral institutions, the increasing influence of Vietnam in Southeast Asia, and acknowledging the common concern over the rise and assertiveness of China. In regard to its goals concerning Vietnam, the United States wants to develop more amicable

³² U.S. State Department, *Background Note: Vietnam*, January 12, 2012, <http://www.state.gov/r/pa/ei/bgn/4130.htm> (accessed March 14 2012).

³³ Manyin, "U.S.-Vietnam Relations in 2010," 20.

³⁴ Carlyle A. Thayer, "Vietnam's Defensive Diplomacy," *Wall Street Journal*, August 19, 2010.

relations, open markets for U.S. trade and investment, advance human rights and democracy in Vietnam, counter China's increasing influence, and maintain U.S. influence in Southeast Asia. In this relationship, the U.S. can employ several policy tools to include trade incentives and restrictions, foreign assistance, cooperation in international organizations, diplomatic pressures, educational outreach, and security cooperation. And most importantly, the recent increase in high level visits between the U.S. and Vietnam appear to signal that strategic concerns about China are playing a larger role in the Obama Administration's policy toward Vietnam than previous administrations.³⁵

5. Vietnam's Interests and Goals in the Relationship

In its relationship with the U.S., Vietnam wants to continue to pursue its four-pronged national strategy: (1) prioritize economic development through market-oriented reforms; (2) improve relations with Southeast Asian neighbors that provide Vietnam with economic and diplomatic partners; (3) repair and deepen its relationship with China, while at the same time (4) use improving relations with the U.S. to balance the growing influence of China.³⁶ According to Mark Manyin,

There are a number of strategic and tactical reasons behind Vietnam's efforts to upgrade its relationship with the United States. Many Vietnamese policymakers seek to counter Chinese ambitions in Southeast Asia by encouraging a sustained U.S. presence in the region. Vietnam also needs a favorable international economic environment—for which it sees U.S. support as critical—to enable the country's economy to continue to expand so it can achieve its goal of becoming an industrialized country by 2020.³⁷

To achieve its ambition, Vietnam needs the support of the United States to be officially recognized as a market economy. Vietnam formally requested to be added to the U.S. Generalized System of Preferences (GSP) program in May 2008 and currently the application is still being reviewed by the office of the U.S. Trade Representative (USTR). The GSP program allows for duty-free treatment for any eligible product from

³⁵ Manyin, "U.S.-Vietnam Relations in 2011,"4.

³⁶ Ibid.

³⁷ Ibid.

Vietnam and acceptance into the U.S. GSP program is a high trade priority for the Vietnamese government.³⁸ According to Michael Martin, the Vietnamese government wants to eventually have a free trade agreement (FTA) with the United States.³⁹ If Manyin and Martin are correct in their reports about the Vietnamese economic ambition, the United States may have some negotiation tool to balance the Sino-Vietnamese relationship.

C. CHINA-VIETNAM BILATERAL RELATIONSHIP

Much longer and more complicated than the U.S.-Vietnam relationship, the relationship between China and Vietnam dates back over 2,000 years and there is a vast amount of literature that has already been written on the history of the two neighboring countries. It is important to note that throughout their shared history, China and Vietnam always had a contentious relationship. The historical trend is that China seeks to extend its influence over the smaller southern neighbor. From 11 B.C. until A.D. 938, the Vietnamese were forced to pay tributes to the giant of the north and from time to time revolted and tried to gain independence.⁴⁰ And from time to time, like today, Vietnam would win its independence from China; however, because of its size and geographic proximity Vietnam has been in the “shadow of the dragon.” Moreover, in modern time, we know that China supported Vietnam by providing supplies and equipment to the Vietnamese during its fight for independence against the French and the Americans. Although the cumulative history is important, however, to cover the nuances of the relations between China and Vietnam is beyond the scope of this thesis. For the purpose of this chapter, we will focus on the Sino-Vietnamese relationship after the end of the U.S.-Vietnam War in 1975.

³⁸ Martin, “U.S.-Vietnam Economic and Trade Relations,” 5.

³⁹ Ibid., 8.

⁴⁰ Henry J. Kenny, *Shadow of the Dragon: Vietnam’s Continuing Struggle with China and the Implications for U.S. Foreign Policy*, (Washington, DC: Brassey’s, 2002), 25–50.

1. China-Vietnam Diplomatic Relations

After the Communist victory in 1975, the newly unified Vietnam wanted to maintain good relations with China and the Soviet Union, the two countries that supported Vietnam during its fight for independence. However, Sino-Vietnamese relations soon soured after Vietnam's harsh treatment of ethnic Chinese and the fighting along the border of Cambodia in 1977. Sino-Vietnamese relations continued to decline and by late 1978 Beijing cut its assistance to Vietnam. Vietnam responded by joining the Soviet-led Council for Mutual Economic Assistance (CMEA) in June 1978 and by November Vietnam signed the Treaty of Friendship and Cooperation with the Soviet Union, formally becoming allies.⁴¹ This Soviet-Vietnamese treaty allowed the Soviets military access to airports and the seaport in Cam Ranh Bay; and in return Hanoi would receive economic and military assistance to counter the Chinese threat. To the Vietnamese, this treaty also implied that the Soviet Union would support and intervene on Vietnam's behalf should China interfere with its plans to invade Cambodia.⁴² The Vietnamese felt that China was supporting the Khmer Rouge attacks into its territory in the Mekong Delta. After several border incidents, Vietnam invaded Cambodia on December 25, 1978, and quickly defeated the Khmer Rouge and installed the Heng Samrin as the leader in early 1979. The Chinese saw this invasion of Cambodia as a Soviet-Vietnamese attempt to encircle China. China used its United Nations Security Council seat to rally support internationally and condemn Vietnam's action. On February 17, 1979, the People's Liberation Army (PLA) launched a large-scale ground attack into Vietnam. China sent about approximately 80,000 to 100,000 troops across the border at twenty-six different points into Vietnam. Deng Xiaoping's intention was to "teach Vietnam a lesson."⁴³ According to Henry Kenny, the Vietnamese Army newspaper, *Quan Doi Nhan Dan*, reported the next day: "February 17, 1979 will go down in history as a severe verdict of the 'Great Han' expansionists' crimes in trying to subdue and annex

⁴¹ Ramses Amer, "Sino-Vietnamese Relations: Past Present and Future," in *Vietnamese Foreign Policy in Transition*, ed. Carlyle A. Thayer and Ramses Amer, 68–129 (New York: St. Martin's Press, 1999), 69–72.

⁴² Robert S. Ross, *The Indochina Tangle* (Columbia, NY: Columbia University Press, 1988), 197.

⁴³ Brantly Womack, *China and Vietnam: The Politics of Asymmetry* (Cambridge University Press: New York, NY, 2006), 200.

Vietnam...Let us severely punish the barbarous aggressors and firmly defend our sacred national independence and sovereignty!”⁴⁴ Militarily, it was the Vietnamese that taught the Chinese a lesson. After three weeks of fighting the Chinese forces withdrew back to China after the battle for Lang Son. According to estimates, the Vietnamese forces killed as many as 25,000 and wounded another 50,000 PLA soldiers.⁴⁵ According to Kenny,

There was no question that Vietnam had taught China a military lesson. Not only was the PLA badly bloodied, but it was bloodied mainly at the hands of Vietnamese militia, while main force Vietnamese units were held in reserve. This result should not have been a surprise. The Vietnamese Army was combat experienced, and fighting for its homeland. The PLA, on the other hand, had neither the motivation nor the understanding of the terrain that characterized the Vietnamese side. It had not seen serious combat in many years, and had suffered during the Cultural Revolution. Thus when the Chinese force withdrew, Vietnam was legitimately able to claim a military victory. On the other hand, there is no question that China taught Vietnam a political lesson—You do not create a sphere of influence in Laos or and Cambodia; you do not attack Cambodia, a country friendly to China. You do not ally with the Soviet Union against us. You do not harass ethnic Chinese people in Vietnam. You do not make claims in the South China Sea that conflict with those of China. In a word, you are not fully independent to act as you wish in disregard of our interests. Remember, you are independent only because of Chinese help in your war of national liberation, so do not get out of line with your big neighbor.⁴⁶

From 1980 to 1986 China pursued a strategy of “bleeding Vietnam white.”⁴⁷ To pressure Vietnam to withdraw from Cambodia, China again used its influence in the UN, ASEAN, and its new warmed relationship with the U.S. to isolate Vietnam. Vietnam for its part, believed that China support to the Khmer Rouge was an attempt by Beijing to encircle Hanoi. The Vietnamese Communist Party referred to China as “the direct enemy of the Vietnamese people.”⁴⁸ Therefore, during this period, Vietnam attempted to

⁴⁴ Henry J. Kenny, “Sino-Vietnamese Relations in the 21st Century,” Conference on Sustainable Development in Vietnam, Adele H. Stamp Student Union Bldg., University of Maryland, College Park, Maryland, November 13, 2003, 2.

⁴⁵ Ibid.

⁴⁶ Ibid., 2–3.

⁴⁷ Donald E. Weatherbee. *International Relations in Southeast Asia: The Struggle for Autonomy* (Latham, MD: Rowman & Littlefield, Inc., 2005), 76.

⁴⁸ Ibid.

consolidate power in Indochina and suppress the Chinese influence.⁴⁹ Vietnam tried to justify its presence in Cambodia by appealing to ASEAN and playing on the fears of China's historical role in Southeast Asia. Vietnam's diplomatic efforts failed and Hanoi was isolated by the international community. To make matters worse for Vietnam, in the mid-1980s the Soviet Union was looking to improve relations with China. Beijing agreed to a détente with Moscow but asked that Vietnam first withdrew from Cambodia. The Soviet Union quickly pressured Vietnam to resolve the Cambodia issue with China. Moreover, the Soviet Union began to slowly decrease its economic aid to Vietnam; this greatly affected Hanoi because Moscow's economic assistance accounted for 38 percent of Vietnam's total annual budget.⁵⁰ The cut back in assistance from Moscow combined with the cost of maintaining its forces in Cambodia and having just fought a war with the United States threatened to ruin Vietnam economically. The Vietnamese leadership recognized the dire situation and decided that they must change course if they wanted to survive as an independent country. Hanoi seeing the success of China's economic reforms, decided to implement Doi Moi.⁵¹ In 1987, Vietnam began to meet secretly with China to negotiate the Cambodia issue; and after more negotiations Vietnam and China agreed to resolve the Cambodia issue through the United Nation. In April 1989, Vietnam announced that it would completely pull out of Cambodia by September.⁵² It must be noted that during this period of Sino-Vietnamese negotiations over the Cambodia issue that China's actions in the South China Sea alarmed Hanoi. In 1988, the PLA Navy established its physical presence on six reefs in the Spratly's; and the Chinese sank two Vietnamese ships, claiming that the Vietnamese vessels were harassing Chinese ships doing scientific research.⁵³ Vietnam attempted to discuss this issue through diplomatic channels, but without the support of the Soviet Union it was no in position to do so. Early

⁴⁹ Ibid.

⁵⁰ Pham Cao Phong, "Vietnam's Economic Security" in *Globalization and Economic Security in East Asia*, ed., Helen E.S. Nesadurai (London: Routledge, 2006), 149.

⁵¹ Alexander Vuving, "Strategy and Evolution of Vietnam's China Policy: A Changing Mixture of Pathways," *Asian Survey*, no. 6 (November/December 2006): 805–811.

⁵² Carlyle A. Thayer, "Sino-Vietnamese Relations: The Interplay of Ideology and National Interest," *Asian Survey*, vol. XXXIV, no. 6, June 1994: 514–515.

⁵³ Kenny, *Shadow of the Dragon*, 66.

in 1990 Vietnam approached China to begin dispute settlement and bring itself out of international isolation; with Beijing warming of relations with Moscow and Vietnam's withdrawal from Cambodia, China was receptive to peace and normalization. In September 1990, Chinese and Vietnamese leaders met secretly in Chengdu, China to begin the process of normalization.⁵⁴ According to Thayer, the collapse of the Soviet Union in 1991 forced Vietnam closer to China in order to seek security from the western threats. The two Communist neighbors shared a common bond to defeat the "external threat—pressure to democratize society, allow political pluralism and implement international acceptable standards."⁵⁵ More importantly, Beijing realized that it needed peace and stability on its borders in order to concentrate on economic development. Finally, in November 1991, Vietnam and China re-established ties. Sino-Vietnamese relations continue to improve since the 1990s. Most notably, in 1999 both countries signed a land border treaty and in 2000 they also signed a sea border treaty for the Gulf of Tonkin.⁵⁶

2. China-Vietnam Economic Relations

As noted in the previous section, immediately after unification and throughout the early 1980s, the Vietnamese government solely relied on the Soviet Union for economic support. While the Vietnamese adopted the Soviet economic model, Deng Xiaoping during this period began his market-oriented economic reforms in China. The Vietnamese leaders regarded China's economic reforms as "a deviation from the true path of socialism."⁵⁷ The border clashes with China, the cost of occupying Cambodia, and the isolation by the international community combined with the diminishing of aid from the Soviet Union threatened the legitimacy of the Vietnamese Communist Party. According to Kenny, by the mid-1980s Vietnam's economy was in a free-fall, which negatively affected the people and the VCP. "Unemployment was well over 20 percent,

⁵⁴ David Wurfel, "Between China and ASEAN: The Dialectics of Recent Vietnamese Foreign Policy" *Vietnamese Foreign Policy in Transition*, ed. Carlyle A. Thayer and Ramses Amer (New York, NY: St. Martin's Press, 1999), 150.

⁵⁵ Thayer, "Sino-Vietnamese Relations: The Interplay of Ideology and National Interest," 518.

⁵⁶ Kenny, *Shadow of the Dragon*, 51–75; Manyin, "U.S.-Vietnam Relations in 2011," 29.

⁵⁷ Kenny, *Shadow of the Dragon*, 79.

inflation in triple digits, malnutrition widespread, poverty ubiquitous, starvation not unknown, and the population apathetic.”⁵⁸ In 1986, the Vietnamese leaders looked north, saw the economic success of China and decided to abandon its centrally planned economy in favor of a free market system; they called it Doi Moi. To the Vietnamese leaders, China is a role model for market economic reforms without threatening the Communist Party’s dominance. More importantly, seeing economic growths of Japan, Taiwan, Singapore, and the other Asian Tigers, Vietnam realized that “...the fate of nations would no longer be determined by arms race but instead by economic races.”⁵⁹

China and Vietnam started to trade immediately after full normalization in 1991. In 1991, Vietnam’s trade with China was estimated at \$32 million, and by 1999 it increased to \$1.25 billion.⁶⁰ The down side to this partnership is that there is a trade imbalance in favor of China by a margin of 4.7 to 1,⁶¹ many Vietnamese claimed that they cannot compete with Chinese mass produced goods, and there are concerns that China is stripping Vietnam of its natural resources.⁶² Nevertheless, China continues to be Vietnam largest trading partner. Ironically, the Vietnamese leadership now views economic growth as a viable way to strengthen its position vis-à-vis China.

3. China-Vietnam Security Relations

Perhaps due to the unresolved territorial disputes in the South China Sea, defense cooperation between China and Vietnam has been limited. Since normalization in November 1991 to September 2008, Vietnamese Defense Ministers have made six visits to Beijing, while the Chinese Defense Ministers visited Hanoi only three times.⁶³ Since the signing of the border agreements, Vietnam and China have conducted demining

⁵⁸ Ibid., 80.

⁵⁹ Vuving, “Strategy and Evolution of Vietnam’s China Policy: A Changing Mixture of Pathways,” 811.

⁶⁰ Kenny, *Shadow of the Dragon*, 87.

⁶¹ Ibid.

⁶² Womack, *China and Vietnam: The Politics of Asymmetry*, 215.

⁶³ Carlyle Thayer, “The Structure of Vietnam-China Relations, 1991–2008: Paper for the 3rd International Conference on Vietnamese Studies, Hanoi, Vietnam,” *Viet-Studies*. December 2008. http://www.viet-studies.info/kinhte/Thayer_Sino_Viet_1991_2008.pdf (accessed March 20, 2012), 4.

operations and conducted the first joint naval patrol in the Gulf of Tonkin on April 27, 2006. According to Thayer, it appears that defense relations between China and Vietnam focused almost entirely on “exchanges of views on “army-building,” regional security, ideological matters, and border securities issues.”⁶⁴ There are very little tangibles, such as a formal military alliance, as requested by Vietnam in the Sino-Vietnamese bilateral security relationship.

4. China’s Interests and Goals in the Relationship

China has several interests in the bilateral relations with Vietnam: 1) peace and stability on the border so it can focus on economic development; 2) Vietnam is a market for Chinese products and a source for natural resources to fuel its growing economy; and 3) better Sino-Vietnamese relations could help undermine the U.S. influence in the region. In its interactions with Vietnam and other states in the region, China prefers to handle disputes bilaterally and separately. For example, in the South China Sea disputes, China wants to deal with each claimant separately rather than involving ASEAN like the Vietnamese desire.

5. Vietnam’s Interests and Goals in the Relationship

Like China, Vietnam also wants peace and stability so it can focus on economic development. Hanoi from the beginning, however, wants more of a security guarantee from Beijing. From 1978 until the fall of the Soviet Union in 1991, which forced Vietnam to normalize its relations with China, the Sino-Vietnam relations can be characterized as Hanoi using its formal military alliance with Moscow to “balance” Beijing.⁶⁵ However, after the collapse of the Soviet Union, Vietnam once again had to show deference to China. Moreover, at the negotiations for normalization of Sino-Vietnamese relations in 1991, Hanoi requested to include security guarantees or a form of military alliance; Beijing declined and stated that the two could be “comrades but not

⁶⁴ Thayer, “The Structure of Vietnam-China Relations,” 5.

⁶⁵ Vuving, “Strategy and Evolution of Vietnam’s China Policy: A Changing Mixture of Pathways,” 807.

allies.”⁶⁶ The Vietnamese ruling elites recognized that “we live adjacent to a big country; we cannot afford to maintain tension with them because they are next door to us.”⁶⁷ This was evidence in the concessions that Hanoi made to Beijing in which many Vietnamese felt their leaders gave away too much land to the Chinese in the 1999 and 2000 border agreements. From 1998 to 2003 the Vietnamese leadership on several occasions went to Beijing and urged the Chinese to establish a two-way ideological alliance, the Chinese however, continued to refuse the requests.⁶⁸

D. VIETNAM VITAL INTERESTS

While lately there is much talk about the primacy of economic development over other priorities in Vietnam, it would be wrong to assume that the Vietnamese Communist Party is willing to loosen its grip on society. Survival of the VCP and regime stability and legitimacy are still the main priority. It is in order to survive and stay in power that the VCP turned to economic development. The leaders of Vietnam have learned from the collapse of the Soviet Union that a centrally planned economy is not practical. More importantly from the Chinese model they have learned that they can have economic prosperity while maintaining a monopoly on power. While Vietnam welcomes increased U.S. trade and investment, its greatest fear is still the negative influence of a “peaceful evolution.” Although increasingly the VCP is relying less on ideology and more on economics to maintain its legitimacy; its main goal is to stay in power.

E. CONCLUSION

This chapter provided relevant historical context in order to answer the question, can the United States influence Vietnam toward a formal military alliance to balance the assertiveness of China in the Asia Pacific region and specifically the South China Sea. History shows that the U.S. is not a reliable security partner to Vietnam because the U.S. abandoned its South Vietnamese ally during the Vietnam War. Moreover, the Vietnamese

⁶⁶ Ibid., 814.

⁶⁷ Vuving, “Strategy and Evolution of Vietnam’s China Policy: A Changing Mixture of Pathways,” 809.

⁶⁸ Ibid., 816.

abandonment by the Soviets in the 1980s made Hanoi realize that superpowers come and go, but China is always there and must be engaged delicately. The two proverbs at the beginning of this chapter illustrate that to survive and maintain its national sovereignty; Vietnam can only depend on itself and not a faraway superpower.

III. CHINA AND VIETNAM CONFLICTING CLAIMS IN THE SOUTH CHINA SEA

A. INTRODUCTION

According to Robert Kaplan and Michael Klare, no other region in the world holds the potential for a future conflict on a global scale more than the South China Sea.⁶⁹ For decades, this 648,000 square miles body of water has been the subject of conflicting territorial claims. Currently six countries have laid claims to some part or all of the South China Sea: Brunei, China, Malaysia, the Philippines, Taiwan, and Vietnam (Figure 1). The South China Sea not only has strategic importance, it has natural resources that are critical to the economic development of all of the countries in the region.⁷⁰

The South China Sea has always played a vital role in the world's economy. According to Robert Kaplan,

More than half the world's annual merchant fleet tonnage passes through these choke points, and a third of all maritime traffic. The oil transported through the Strait of Malacca from the Indian Ocean, en route to East Asia through the South China Sea, is more than six times the amount that passes through the Suez Canal and 17 times the amount that transits the Panama Canal. Roughly two-thirds of South Korea's energy supplies, nearly 60 percent of Japan's and Taiwan's energy supplies, and about 80 percent of China's crude-oil imports come through the South China Sea. What's more, the South China Sea has proven oil reserves of 7 billion barrels and an estimated 900 trillion cubic feet of natural gas, a potentially huge bounty.⁷¹

⁶⁹ Michael T. Klare, *Resource Wars: The New Landscape of Global Conflict*. A Metropolitan/Owl Book, Henry Holt and Company, New York, 2001; Robert D. Kalpan, "The South China Is the Future of Conflict" *Foreign Policy*, SEP/OCT 2011, http://www.foreignpolicy.com/articles/2011/08/15/the_south_china_sea_is_the_future_of_conflict (accessed August 23, 2011).

⁷⁰ Eric Hyer, "The South China Sea Disputes: Implications of China's Earlier Territorial Settlements." *Pacific Affairs*, Vol. 68, No. 1 (Spring, 1995), pp. 34–54. Pacific Affairs, University of British Columbia, <http://www.jstor.org/stable/2759767> (accessed August 12, 2011), 39.

⁷¹ Kalpan, "The South China Is the Future of Conflict," 4.

With such an enormous impact on the global economy, the South China Sea is considered to be a national interest of the United States. The United States has important economic and security partners in the region to include Japan, South Korea, the Philippines, Thailand, and Taiwan. Moreover, China’s rising economy requires protection of shipping lanes and access to natural resources; it has therefore increased its military presence and has become more assertive in the South China Sea.⁷² The military assertiveness of China and its claim to the entire South China Sea as its territorial waters raises serious concerns for the entire Asia Pacific and threatens to destabilize the region. This chapter examines the conflicting claims in the South China Sea, specifically the dispute between China and Vietnam. Moreover, can the United States capitalize on the increasing Sino-Vietnamese tensions and compel Vietnam toward a formal military relationship to balance the aggressiveness of China in the region.

Country	Paracel Islands Claimed	Paracel Islands Controlled	Spratly Islands Claimed	Spratly Islands Occupied
Vietnam	All	None	All	29
China	All	All	All	7
Taiwan	All	None	All	2
Philippines	None	None	60	8
Malaysia	None	None	12	4
Brunei	None	None	None	None

⁷² Klare, *Resource Wars: The New Landscape of Global Conflict*, 116.

Table 1. Conflicting Claims in the South China Sea (From: ⁷³)



Figure 1. Conflicting Claims in the South China Sea (From: ⁷⁴)

Although China has conflicting claims over the sovereignty of the South China Sea with four other countries in the region, the focus of this chapter is the recent re-emergence of tensions between Vietnam and China. This recent rising of tensions

⁷³ James Bellacqua. "The China Factor in U.S.-Vietnam Relations." CNA China Studies, DRM-2012-U-000184-Final, March, 2012, 14.
<http://www.cna.org/sites/default/files/research/The%20China%20Factor%20in%20US%20Vietnam%20Relations%20DRM-2012-U-000184-FINAL.pdf>, (accessed April 15, 2012).

⁷⁴ Bellacqua. "The China Factor in U.S.-Vietnam Relations," 13.

between the two socialist neighbors presents a unique opportunity for the United States to exercise its influence in the region and potentially gain a key security ally. Moreover, Vietnam has the largest military in Southeast Asia and is increasing its defense spending to modernize and increase its naval capabilities.⁷⁵ A more formalized military relationship between the United States and Vietnam, similar to the mutual defense treaty the United States has with Australia, Japan, the Philippines, South Korea, and Thailand, could help balance the influence of China in the Asia Pacific region. Again, China has conflicting claims with four other countries in the South China Sea, but arguably none is more important than the overlapping claims it has with Vietnam because Hanoi is officially challenging Beijing's assertiveness.

B. THE OVERLAPPING CLAIMS TO THE SOUTH CHINA SEA

Under the United Nations Convention on the Law of the Sea (UNCLOS), countries that share an ocean or sea border can claim an exclusive economic zones (EEZs) covering coastal waters out to two hundred miles from the shoreline. However, when the EEZ of a country overlaps with the area claimed by a neighboring country, such as the case with China and Vietnam, each state may claim an EEZ extending out to a line equidistant between them. This concept sounds reasonable and works well in theory when there are no islands or offshore features in the area or if the states involved agree on the ownership of these features. However, the South China Sea, in reality, has many islands and the ownership of these islands is contested.⁷⁶

In the South China Sea, the EEZ boundaries are almost impossible to determine. Countries in the region such as Malaysia and the Philippines both claim areas off the eastern coast of Borneo. Malaysia and Vietnam have wrangled over their shared border in the Gulf of Thailand; and Vietnam and the Philippines have sparred over overlapping claims. And to add even more complexity to the "nightmare" of disputes, China claims

⁷⁵ Carlyle A. Thayer, "Vietnam People's Army: Development and Modernization," Research Monograph, Sultan Haji Bolkuah Institute of Defence and Strategic Studies, August 23, 2009; Anthony H. Cordesman, "The Military Balance in Asia: 1990-2011 A Quantitative Analysis." Center for Strategic & International Studies, May 16, 2011, www.csis.org/burke/reports (accessed May 27, 2011), 69.

⁷⁶ Klare, *Resource Wars: The New Landscape of Global Conflict*, 119.

the entire South China Sea as its territorial waters (Figure 2).⁷⁷ This claim by China puts it in direct conflict with other countries in the region, but most importantly with Vietnam, which also claims the Paracel Islands and most of the Spratly Islands.



Figure 2. China's Claim to the South China Sea

China and Vietnam continue to have conflicting claims over their maritime border in the Gulf of Tonkin, the Paracel Islands, and fishing rights in the South China Sea, but for the most part, the conflict between China and Vietnam has been over the sovereignty of the energy-rich Spratly Islands.⁷⁸ The Spratly Islands (called Nansha by the Chinese and Truong Sa by the Vietnamese) is a group of about 400 islets, coral reefs, atolls cays, rocks, sand banks, shoals, and sea mounts spread out over 80,000 square miles of water.

⁷⁷ Ibid., 120.

⁷⁸ Klare, *Resource Wars: The New Landscape of Global Conflict*, 120.

Many of these islets are only visible at low tide. They are located 400 miles east of Vietnam and 800 miles south of China's Hainan Island, and 160 miles north of Brunei and East Malaysia.⁷⁹ Currently Vietnam occupies (either by physically stationing troops or planting a flag) 29 islets or rocks, the Philippines 8, China 7, Malaysia 4, and Taiwan 2 (Table 1).⁸⁰ However, Taiwan occupies the largest island, Itu Aba, which is about 1000 meters long and 400 meters wide, and covered with trees and shrubs.⁸¹

C. THE CHINESE CLAIM

In 1992, China's top legislative body, the Standing Committee of the National People's Congress formally passed the Law on the Territorial Waters and Their Contiguous Areas. This law formally recognized the U-shaped dotted loop, also known as the "cow's tongue" (Figure 1) as its territorial waters.⁸² The Chinese government also empowered its military, the People's Liberation Army (PLA) to use force if necessary to defend the islands against foreign occupation or attack.⁸³ The Chinese for the most part base this claim to the Spratly Islands on the continuous Chinese administration of the archipelago since the Tang dynasty (618–907). The Chinese government also cites various accounts of Chinese naval and maritime operations in the South China Sea over the centuries.⁸⁴

D. THE VIETNAMESE CLAIM

To the Vietnamese, their claim on the islands is the oldest and the strongest. Court records show that both the Paracel and the Spratly Islands were considered to be Vietnamese territory during the reign of King Le Thanh Tong (1460–1497). Vietnam has documents and maps from the 17th, 18th, and 19th Centuries to prove that it made frequent visits, erected pillars, and planted trees to aid in navigation on both the Spratly

⁷⁹ Tong Hum Kang, "Vietnam and the Spratly Islands Dispute Since 1992" (master's thesis, Naval Postgraduate School, 2000), 1.

⁸⁰ Bellacqua, "The China Factor in U.S.-Vietnam Relations," 14.

⁸¹ Tong Hum Kang, "Vietnam and the Spratly Islands Dispute Since 1992," 9.

⁸² Kalpan, "The South China Is the Future of Conflict," 5.

⁸³ Klare, *Resource Wars: The New Landscape of Global Conflict*, 121.

⁸⁴ *Ibid.*

and Paracel Islands. During the French and Japanese occupation, both of the islands chains were considered to be within Vietnamese territory.⁸⁵

However, during the Vietnam War period, the Vietnamese historical claim to the islands was not a major concern and therefore was tabled. The North Vietnamese even supported the Chinese when China sent troops to capture the Paracel Islands from the South Vietnamese in 1974. It was not until after re-unification in 1975 that Vietnam again re-asserted its claims to the island groups. In recent years, Vietnam sent troops to some of the islands to plant markers and build gun positions.⁸⁶

Currently, Vietnam is basing its claims to the South China Sea by applying international law and the United Nations Convention on the Law of the Sea (UNCLOS). Vietnam states that the principle of “first discovery” claim by the Chinese is not acceptable and that it should be coupled with the principle of “effective occupation.” In this context, Vietnam argues that its claims are based on international law and history of occupation.⁸⁷

E. FACTORS RESPONSIBLE FOR THE DISPUTE

There are two major factors that contribute to the South China Sea (called the East Sea by the Vietnamese) dispute between China and Vietnam. The first and most obvious factor, as mentioned by Robert Kaplan, is the economic potential that the South China Sea holds.

In order to sustain their economic growth, both China and Vietnam want to unilaterally control the natural resource potential that the South China Sea promises; although it is still unproven.

More importantly, however, underneath the economic potential lies the truly buried treasure, the second factor responsible for the dispute; and that is the issue of national sovereignty. Even if it is proven that there is no oil or natural gas in the South

⁸⁵ Tong Hum Kang, “Vietnam and the Spratly Islands Dispute Since 1992,” 15–17.

⁸⁶ *Ibid.*, 17–19.

⁸⁷ *Ibid.*, 20.

China Sea the military clashes between China and Vietnam will not go away. As mentioned in the previous chapter, national sovereignty is a vital interest of the Vietnamese.

F. MILITARY CLASHES

Throughout history Vietnam and China have had contentious relations. In recent history, the two neighboring countries fought a major war in 1979 when 100,000 Chinese troops crossed into Vietnam in an attempt to teach the Vietnamese a lesson for invading Cambodia. Having gained experience from the war against the U.S. and with weapons supplied by the Soviet Union, the Vietnamese were able to push back the Chinese invaders. In 1988, Vietnam and China fought a small naval battle in the South China Sea which resulted in the death of 74 Vietnamese sailors and 3 Vietnamese naval vessels destroyed.⁸⁸ However, with the collapse of the Soviet Union, Vietnam lost its key supporter. After having suffered economic devastation and with the collapse of the Soviet Union in 1991, Vietnam started to form closer ties with China. Sino-Vietnam relations continued to steadily improve until the U.S. lifted its trade embargo against Vietnam in 1994.⁸⁹ As the U.S.-Vietnam relations normalized and continue to improved, Vietnam became less dependent on China economically; but as stated earlier, China is still Vietnam's biggest trading partner.

However, with China's ambition of increasing the capabilities of its navy to include aircraft carriers and the two recent clashes between Vietnamese vessels and Chinese vessels, tensions are again rising between the two countries. The increasing tensions resulted in anti-Chinese protests in Vietnam and continued with each country conducting live-fire exercises in the South China Sea.⁹⁰

⁸⁸ Samuel S. G. Wu and Bruce Bueno de Mesquita. "Assessing the Dispute in the South China Sea: A Model of China's Security Decision Making," *International Studies Quarterly*, Vol. 38, No. 3 (Sep., 1994), 379–403. Blackwell Publishing on behalf of The International Studies Association, <http://www.jstor.org/stable/2600738> (accessed August 12, 2011), 381.

⁸⁹ William Ratliff, *Vietnam Rising: Culture and Change in Asia's Tiger Cub*. The Independent Institute, Oakland, CA, 2008, Chapter 1.

⁹⁰ Patrick Barta. "U.S., Vietnam in Exercises Amid Tensions With China," *Wall Street Journal (Online)* [New York, N.Y.] 16 July 2011.

G. DISPUTE SETTLEMENTS

Currently, there are two dispute settlements offered to the South China Sea conflict. The first is the 1982 United Nations Convention on Law of the Sea (UNCLOS) which has already been mentioned. The second is the 2002 Association of Southeast Asian Nations (ASEAN) and China Declaration on Conduct of Parties in the South China Sea (DOC). The DOC has ten points and essentially China and ASEAN agree to:

- Prohibit the use of force and threats of force,
- Exercise self-restraint,
- Settle international disputes peacefully,
- Search for and adopt confidence building measures,
- Cooperate,
- Consult, and
- Respect the freedom of international air and maritime navigation.

The DOC is meant to diminish the threat of war or a military clash in the South China Sea. It has important significance in creating an environment for cooperation, peace, and stability in the region and in promoting trust, confidence building, and mutual understanding between ASEAN and China. However, the implementation of the principles contained in the DOC depends upon the good will and efforts of its parties.⁹¹

Both the DOC and UNCLOS are difficult to enforce and furthermore, China would rather deal with each claimant bilaterally where it can negotiate from a position of strength.

H. CONCLUSION

The South China Sea has always been and will continue to be an area of potential conflict. Whether the reason to the claims is potential for natural resources or nationalism, the states involved, China and Vietnam in particular are still unwilling to compromise. Moreover, they have increased their military capabilities and are willing to

⁹¹ Nguyen Hong Thao, "The 2002 Declaration on the Conduct of Parties in the South China Sea: A Note," *Ocean Development & International Law*, 34:279–285, 2003, Copyright Taylor & Francis Inc., ISSN: 0090-8320 print/ 1521-0642 online, 281.

use force if necessary to protect their vital interests.⁹² There are many scenarios in which the regional disputes can escalate into a major war in which the United States is forced to participate.

The conflict in the South China Sea is a concern to the United States because according to Secretary Clinton, stability of the region is in our “national interests.”⁹³ The United States must protect its own and its allies’ freedom of navigations in the South China Sea. The conflict also offers a unique opportunity for the U.S. to exercise its leadership role and influence in the region. The United States should also use this opportunity to strengthen and create new partnerships in the region, specifically with Vietnam, which has shown that it is willing to challenge the assertiveness of China.

China’s strategy to resolve this conflict is one-on-one negotiation with relatively weaker states to settle territorial disputes. Beijing prefers to deal with each state bilaterally in order to coerce the weaker claimant. Therefore, by strengthening old ties and creating new allies in the region, the United States can help balance the aggressiveness of China and calm tensions in the South China Sea.

⁹² Klare, *Resource Wars: The New Landscape of Global Conflict*, 136.

⁹³ Walter Lohman, “The U.S. Cannot Rely on ASEAN in the South China Sea.” WebMemo, Published by The Heritage Foundation, No. 3335, August 5, 2011, <http://report.heritage.org/wm3335>, (accessed August 10, 2011), 2.

IV. GAME THEORY

A. INTRODUCTION

This chapter will apply game theory mathematical modeling to analyze the current U.S.-Vietnam military-to-military relationship. This chapter will use the interests and goals of the United States and China and compare them against the vital interests of Vietnam in a game of Strategic Moves. Through the application of Strategic Moves in the U.S.-Vietnam relationship, this chapter will analyze what threats or promises or the combination of threats and promises the U.S. has to apply to compel or coerce Vietnam toward a formal military alliance to balance the increasing assertiveness of China in the South China Sea.

After the application of Strategic Moves, it will be clear that game theory supports my earlier argument that despite the improvement in relations, there is nothing to indicate that the U.S. will be able to formalize its military relations with Vietnam. The United States therefore cannot undermine the influence of China in the South China Sea region through a mutual security agreement or a formal military alliance with Vietnam. The current geopolitics and vital interests of the Vietnamese as determined by its communist leaders are still more closely aligned with China than the United States.

B. THE NATURE OF THE GAME

Game theory was first introduced as simply a theorem in pure mathematics in 1928 by John von Neumann. Game theory developed rapidly after von Neumann collaborated with economist Oskar Morgenstern to publish *Theory of Games and Economic Behavior* in 1944.⁹⁴ The application of game theory and its importance to social science were quickly recognized. Today, game theory is used extensively in analyzing psychology, philosophy, sociology, politics, and economics. Most importantly, game theory is used to analyze international relations, specifically in countries with conflicting goals and interests such as the United States, China, and Vietnam. In his book,

⁹⁴ Philip D. Straffin, *Game Theory and Strategy*, New Mathematical Library, Vol. 36, (Washington: Mathematical Association of America, 1993), ix.

The Strategy of Conflict, Thomas Schelling commented on the application of game theory in international relations, “It is the employment of threats, or of threats and promises, or more generally of the conditioning of one’s own behavior on the behavior of others that [sic] the theory is about.”⁹⁵ He also noted that, “Such a theory is nondiscriminatory as between the conflict and the common interest, as between its applicability to potential enemies and its applicability to potential friends.”⁹⁶

According to Philip Straffin, game theory is the logical analysis of situations of conflict and cooperation. A game is a situation in which

1. There are at least two players. A player may be an individual, but it may also be a more general entity like a company, a nation, or even a biological species.
2. Each player has a number of possible strategies, courses of action which he or she may choose to follow.
3. The strategies chosen by each player determine the outcome of the game.
4. Associated to each possible outcome of the game is a collection of numerical payoffs, one to each player. These payoffs represent the value of the outcome to the different players.⁹⁷

He gave an example of a game, where (1) Player 1 (he called her Rose/ Row player) can play strategies A and B, and Player 2 (he called him Colin/ Column player) can play strategies C and D (Figure 2).

		Colin	
		C	D
Rose	A	AC	AD
	B	BC	BD

Figure 3. Game Theory Strategies Matrix

⁹⁵ Thomas C. Schelling, *The Strategy of Conflict*, 15.

⁹⁶ Ibid.

⁹⁷ Straffin, *Game Theory and Strategy*, 3.

The numbers are the payoffs for the players, Rose's payoffs are the first numbers and Colin's payoffs are the second numbers (Figure 3).

		Colin	
		C	D
Rose	A	(4, 2)	(1, 1)
	B	(2, 3)	(3, 4)

Figure 4. Game Theory Payoffs Matrix

Game theory can be divided into two categories: zero-sum games and partial-sum or non-zero-sum games. Zero-sum games are games in which one player wins and the other player loses. The two players do not cooperate and their interests are in total conflict. Each player chooses a certain set of strategies, and he/she does not know the choices of the other player; the interests of the players are strictly opposed.⁹⁸ Partial-sum (non-zero-sum) games, on the other hand, are games in which the interests of the players are not strictly opposed. The success of one player does not come as a result of the failure of the other player.

Because the interests of the players are not in total conflict and not strictly coincident, a partial-sum game allows the players to both compete and cooperate to achieve outcomes that are advantageous to both players.⁹⁹

Partial-sum games can be played without communication, with communication before the game, and with cooperation.

In international relations, countries such as the United States, China, and Vietnam both compete and cooperate to maximize their national interests. These countries also

⁹⁸ Straffin, *Game Theory and Strategy*, 5.

⁹⁹ *Ibid.*, 65.

have diplomatic relations, and therefore, they communicate with one another. Therefore this study will focus on the partial-sum games in which the players can communicate before the game—Strategic Moves.¹⁰⁰

C. STRATEGIC MOVES

According to Schelling, “A strategic move is one that influences the other person’s choice, in a manner favorable to one’s self, by affecting the other person’s expectations on how one’s self will behave.”¹⁰¹ And according to Dixit and Nalebuff, “A strategic move is designed to alter the beliefs and actions of others in a direction favorable to yourself.”¹⁰² Unlike other games in which players are required to pick their strategies simultaneously and without communicating beforehand, strategic moves are much more realistic. Just as in real life, one player can move first and make his or her move known to the other player, and they can talk to each other before they move. More importantly, commitments, threats, and promises are possible with strategic moves.¹⁰³

1. First Move

The first move can be described as the ability of the player to either make a move (play a strategy) before the other player or make a commitment to play some strategy under all circumstances. These options are considered interchangeable during an analysis of the game. The critical question remains: is it preferable for the player to play first or force the other player to move first?

¹⁰⁰ I learned about Strategy Moves from Professor Giordano’s Game Theory Course and Miroslav Feix’s master’s thesis: Frank Giordano, *SO4410 Models of Conflicts*, Naval Postgraduate School, Monterey, CA, April, 2011; Feix, Miroslav. *Game Theory: Toolkit and Workbook for Defense Analysis Students*, Monterey: Naval Postgraduate School, June 2007, 33 –39.

¹⁰¹ Schelling, *The Strategy of Conflict*, 160.

¹⁰² Avinash K. Dixit and Barry Nalebuff, *Thinking Strategically: The Competitive Edge in Business, Politics, and Everyday Life*, 1st ed. (New York: Norton, 1991), 120.

¹⁰³ Straffin, *Game Theory and Strategy*, 84.

		Colin	
		C	D
Rose	A	(4, 2)	(1, 1)
	B	(2, 3)	(3, 4)

Figure 5. First Move

In this game, neither player has a dominant strategy. The likely outcome, without communication, can be BC [2, 3] as the intersection of maximin¹⁰⁴ strategies Rose-B, Colin C. Can the players improve their outcome by playing the first move or forcing the other to play?

The illustration begins with Rose: What will happen when Rose plays A and what will happen when she plays B? If Rose plays Rose-A, then Colin, looking at his outcome, would choose Colin-C, as it gives him a higher payoff than Colin-D. The result is AC [4, 2]. If Rose plays Rose-B, then Colin replies with D, and the outcome is BD [3,4]. By comparing these two outcomes, one can see that it is better for Rose to play A, as it gives Rose her best outcome with the payoff 4. Still one can question whether the outcome is better than the likely outcome without communication. In this case, the answer is yes; therefore, it is preferable for Rose to play first (Rose-A) in order to get her best outcome.

If Rose A then Colin C [4, 2]

If Rose B then Colin D [3, 4]

Better for Rose [4, 2]

Better than Rose's likely outcome? Yes

The same can be done for Colin. Colin has a first move to play D with Rose responding B. This gives Colin his best outcome DB [3, 4].

¹⁰⁴ See von Neumann's theorem: Straffin, *Game Theory and Strategy*, 7–11.

If Colin C then Rose A [4, 2]

If Colin D then Rose B [3, 4]

Better for Colin [3, 4]

Better than Colin's likely outcome? Yes

To illustrate further, another example is given. Again the players do not have dominant strategies so the likely outcome, when Rose and Colin play maximin strategies, is AC [2, 3]

		Colin	
		C	D
Rose	A	(2, 3)	(3, 1)
	B	(4, 2)	(1, 4)

Figure 6. First Move

First move Rose:

If Rose A then Colin C [2, 3]

If Rose B then Colin D [1, 4]

Better for Rose [2, 3]

Better than Rose's likely outcome? Equal

Rose has a first move, but the result is not better than the likely outcome without communication. Nevertheless, Rose can secure her likely outcome by playing Rose-A.

First move Colin:

If Colin C then Rose B [4, 2]

If Colin D then Rose A [3, 1]

Better for Colin [4, 2]

Better than Colin's likely outcome? No

Colin does not have a first move. In both cases, Rose can respond with a strategy that is worse for Colin than the likely outcome. Looking at Rose's payoffs one can see that it is beneficial for Rose to force Colin to move first. If Colin has to move, he would likely choose to play C (better than D). Rose would then play Rose-A and get her best outcome.

2. Threat

Threat is one type of conditional commitment. It is a commitment to play a certain strategy as a reaction to the opponent's choice of strategy. In the case of threat, it hurts both players. If the other player believes it (the threat is credible), one of the pure strategy solutions is taken out of consideration. How can one know whether the players have the option of making a threat?

		Colin	
		C	D
Rose	A	(1, 1)	(3, 2)
	B	(4, 3)	(2, 4)

Figure 7. Threat

In this game, Colin has a dominant strategy Colin-D and the likely outcome without communication can be AD [3, 2]. The example begins with Colin. Does Colin have a threat?

Without communication, Rose plays A. However, Colin would like to force Rose to play B, so his threat is against A. He says, "If you (Rose) play A, I (Colin) will sacrifice my payoffs in order to hurt you. Normally I would play D, but if you play A, I will respond with C."

The following analyzes whether this is a workable threat:

Normally:

If Rose A then Colin D [3, 2]

Threat:

If Rose A then Colin C [1, 1] It hurts Colin, and hurts Rose it is a threat

If Rose B then Colin D [2, 4]

 Better for Rose [2, 4]

Better than Colin's likely outcome? Yes

Colin would normally respond with D to Rose-A. His threat is to play C as a response to Rose-A. The threat hurts both players, as their payoffs are lower than an outcome without communication. If Rose plays B, Colin will play D. Now Rose has to decide what is better for her. She chooses between AC [1, 1] and BD [2, 4]. Therefore it is better for Rose to play B, as it gives her a higher payoff ($1 < 2$). The outcome of the game is then BD, and Colin gets his best outcome. Colin uses a threat, and it works alone.

In the same vein, Rose is analyzed. She would like to force Colin to play C and she threatens D.

Normally:

If Colin D then Rose A [3, 2]

Threat:

If Colin D then Rose B [2, 4]. It hurts Rose, but it is beneficial to Colin – This is not a threat.

Rose does not have a threat, as her conditional commitment would be beneficial to Colin.

The next game is an example where Rose has a threat, but it does not work independently. Colin has a dominant strategy C and the likely outcome, without communication, would be AC [2, 4].

		Colin	
		C	D
Rose	A	(2, 4)	(3, 3)
	B	(1, 2)	(4, 1)

Figure 8. Threat

Rose would like to force Colin to play D, so her threat is focused on C.

Normally:

If Colin C then Rose A [2, 4]

Threat:

If Colin C then Rose B [1, 2] It hurts Colin, and hurts Rose; it is a threat

If Colin D then Rose B [4, 1]

Better for Colin [1, 2]

Even with Rose's threat, it is still better for Colin to play C. By playing C, Colin gets 2 which is a better outcome than complying with the threat and getting 1. Sometimes when a player has a threat which does not work by itself, the player can combine it with some other conditional move.

3. Promise

Another type of conditional move is called the promise. The promise is hurtful for a player and beneficial to the opponent.

As in the case of the threat, a promise has an ability to remove one pure strategy solution from consideration. Again, it is necessary to first explore whether the player has the option to make a promise and then how the game would evolve.

		Colin	
		C	D
Rose	A	(2, 2)	(3, 1)
	B	(4, 3)	(1, 4)

Figure 9. Promise

In this game, neither player has a dominant strategy. The players would probably play their maximin strategies. The likely outcome, without communication, is AC [2, 2].

Colin would like to persuade Rose to play B. His promise then focuses on this strategy. Normally, if Rose plays B, Colin responds with D and the resulting payoff is BD [1, 4]. However, Colin promises to hurt himself and plays Colin-C. It would look like the following:

Normally:

If Rose B then Colin D [1, 4]

Promise:

If Rose B then Colin C [4, 3] It hurts Colin, beneficial to Rose; it is a promise

If Rose A then Colin C [2, 2]

Better for Rose [4, 3]

Better than Colin's likely outcome? Yes

The conditions for the existence of promise have been met. The promise hurts Colin and is beneficial to Rose. For Rose it is advantageous to comply; she can get her best outcome.

By doing so, she allows Colin to get his second best outcome, which is better than the likely outcome without communication. Colin has a threat, which works independently.

Now to consider a previous game where Rose has a threat which does not work alone; does she have a promise? As a reminder, Colin has a dominant strategy C and the likely outcome without communication would be AC [2, 4].

		Colin	
		C	D
Rose	A	(2, 4)	(3, 3)
	B	(1, 2)	(4, 1)

Figure 10. Promise

Rose would like Colin to play D. Her promise focuses on D.

Normally:

If Colin D then Rose B [4, 1]

Promise:

If Colin D then Rose A [3, 3] It hurts Rose, beneficial to Colin; it is a promise

If Colin C then Rose A [2, 4]

Better for Colin [2, 4]

Rose has a promise to play A in case Colin plays D. It hurts her and is beneficial to Colin. However, it is still better for Colin to play C and get his best outcome.

4. **Combination of Threats and Promises**

In the last game, Rose has a threat and a promise and neither one works independently. What if Rose were to make the threat and promise together?

		Colin	
		C	D
Rose	A	(2, 4)	(3, 3)
	B	(1, 2)	(4, 1)

Figure 11. Combination of Threat and Promise

Threat:

If Colin C then Rose B [1, 2]

Promise:

If Colin D then Rose A [3, 3]

Better for Colin [3, 3]

In this case, the threat eliminates outcome AC [2, 4] and the promise eliminates BD [4, 1]. Colin has to choose between the remaining two options. It is better for him to play D with the result AD [3, 3]. The result is second best for Rose, and the combination of threat and promise works for her.

D. ANALYSIS OF U.S.-VIETNAM MILITARY ALLIANCE

In this section, we will apply the games from the previous section to analyze the feasibility of a U.S.-Vietnam military alliance. We want to test the thesis question, can the United States compel or influence Vietnam toward a formal military relationship or a military alliance to counterbalance the assertiveness of China in the South China Sea. More specifically, does the U.S. have any threats, promises, or the combination of threats and promises to compel Vietnam toward a formal military alliance to undermine the influence of China in the South China Sea region?

From the historical analysis of the U.S.-Vietnam relationship, we have shown that both countries have the options of cooperating militarily in a military alliance,

cooperating economically in trade organizations, not cooperating militarily, and not cooperating economically. The three by three strategy matrix for the relationship is below:

		Vietnam			
		Military Alliance	No Military Alliance	Economic Cooperation	
		D	E	F	
U.S.	Military Alliance	A	A,D	A,E	A,F
	No Military Alliance	B	B,D	B,E	B,F
	Economic Cooperation	C	C,D	C,E	C,F

Figure 12. U.S.-Vietnam Cooperation

Since both the US and Vietnam desire economic cooperation, that variable is eliminated. Because the economic variable has been eliminated, only the military cooperation variables remain. Moreover, this better answers our initial thesis question. This leaves us with a two by two strategy matrix (Figure 12).

		Vietnam			
		Military Alliance	No Military Alliance	Economic Cooperation	
		D	E	F	
U.S.	Military Alliance	A	A,D	A,E	A,F
	No Military Alliance	B	B,D	B,E	B,F
	Economic Cooperation	C	C,D	C,E	C,F

Figure 13. U.S.-Vietnam Military Alliance

The game that remains, in order to answer the thesis question, has two payoff variables for both the U.S. and Vietnam. From the perspective of the U.S., the best outcome is that they offer a military alliance to Vietnam and Vietnam accepts the offer. The worst outcome is that the U.S. does not offer a military alliance and Vietnam does not accept the alliance. The remaining two possible outcomes for the U.S. are that a military alliance is offered to Vietnam and Vietnam refuses to accept it, and that a military alliance is not offered by the U.S. but Vietnam is willing to accept the alliance. The first of these two options is more preferable to the U.S., that it offers a military alliance to Vietnam and Vietnam accepts the offered military alliance.

From Vietnam's perspective, their best outcome is that the U.S. does not offer a military alliance and Vietnam does not accept the alliance. Their worst outcome is that the U.S. offers a military alliance and Vietnam accepts it. This is the worst option for Vietnam because it means that Vietnam must choose between the United States and China; it is not in Vietnam's best interest to align itself with any one superpower. The second best outcome for Vietnam is if the U.S. were to offer a military alliance and Vietnam were to refuse the alliance. The second worst outcome is if the U.S. does not offer a military alliance and Vietnam were willing to accept the alliance.

In this game, both The U.S. and Vietnam have their dominant strategies: the U.S. is to offer a military alliance and Vietnam is to refuse the military alliance. The Nash Equilibrium¹⁰⁵ is at [3, 3] in which the U.S. offers a military alliance and Vietnam refuses it.

¹⁰⁵ John F. Nash, "Equilibrium Points in n-Person Games," *Proceedings of the National Academy of Sciences of the United States of America* 36, no. 1 (January 15, 1950): 48–49. John F. Nash proved that every two-player game has at least one equilibrium either in Pure or in Mixed strategies. The equilibriums are called Nash Equilibriums. Nash Equilibrium in the mixed strategy is formed by equalizing strategies of the players.

		Vietnam		
		Accept Alliance	Don't Accept Alliance	
U.S.	Offer Military Alliance	A	C	D
	Don't Offer Military Alliance	B	(4, 1)	(2, 2)
				(1, 4)

Figure 14. U.S.-Vietnam Military Alliance Payoff Matrix

This is not the outcome the U.S. is looking for; therefore we will look at Strategic Moves.

We started the game by analyzing the strategic moves available to the U.S.; we will use the same payoff matrix as in Figure 13. The U.S. and Vietnam both have the dominant strategies AD with the Nash Equilibrium as [3, 3]. The U.S. maximin is 3 and Vietnam's maximin is also 3. This tells us that without communications, the likely outcome is AD—U.S. offers a military alliance and Vietnam refuses to accept the alliance. We continued our analysis to see if this outcome could be modified.

If the U.S. does A, then Vietnam does D with the outcome of [3, 3].

If the U.S. does B, then Vietnam does D with the outcome of [1, 4].

The U.S. would choose A, with the outcome of [3, 3].

If Vietnam does C, then the U.S. does A with the outcome of [4, 1].

If Vietnam does D, then the U.S. does A with the outcome of [3, 3].

Vietnam would choose D, with the outcome of [3, 3].

From this analysis, we can conclude that there is no benefit to either the U.S. or Vietnam for moving first. Next, we want to analyze the possibility of using a threat against Vietnam.

The U.S. wants Vietnam to accept the alliance (strategy C), so the threat is placed on strategy D. If Vietnam chooses D and the U.S. does the opposite of what they would normally do (choose A), then the U.S. does B, with outcome [1, 4] (rather than 3, 3). This does not hurt Vietnam, so it is not a threat to them. This scenario is actually their best possible outcome.

Next, we analyze the possibility of using a promise to compel Vietnam towards a more formalized military alliance. The promise is placed on strategy C. If Vietnam does accept support (strategy C) and the U.S. hurts itself, they execute strategy B with outcome [2, 2]. This helps Vietnam and hurts the U.S. so it is a promise and it eliminates AC with the outcome of [4, 1]. When this promise is communicated, the strategy selected is BD with outcome of [1, 4]. Although there is a promise, it is not effective because Vietnam still executes strategy D rather than strategy C.

By playing out this game, we discovered that there is no way for the U.S. to influence Vietnam into accepting a more formal alliance. In order to discover under what circumstances this would be possible, we modified the game.

		Vietnam	
		Accept Package C	Don't Accept Package D
U.S.	A Offer Military & Economic Package	(4, 2)	(2, 3)
	B Don't Offer Package	(3, 1)	(1, 4)

Figure 15. U.S.-Vietnam Relations Modified Game

In order to make the result more favorable to the U.S., we modified the game. In this modified game (Figure 14), we leveraged the Vietnamese need for access to U.S. markets by combining military alliance with an economic support package. The two variables for the U.S. are to offer a package of military alliance and an economic support

package and do not offer a military alliance and an economic support package to Vietnam at all. The variables for Vietnam are to accept the support package or not to accept the support package.

In this game, both the U.S. and Vietnam have their dominant strategies: the U.S. is to offer military and economic support and Vietnam is to refuse the offered support package. The Nash Equilibrium is at [2, 3] in which the U.S. offers the support package and Vietnam refuses it. This is still not the outcome the U.S. is looking for; therefore we will look at Strategic Moves.

With a modified game, we once again began by analyzing the strategic moves available to the U.S.; we will use the same payoff matrix as in figure 14. Both the U.S. and Vietnam have the same dominant strategies as previously AD with the Nash Equilibrium being [2, 3]. The maximin values are now [2, 3]. Again, this tells us that without communications, the likely outcome is AD—U.S. offers military and economic support and Vietnam refuses to accept the support. We continue our analysis to see if this outcome could be modified.

If the U.S. does A, then Vietnam does D with the outcome of [2, 3].

If the U.S. does B, then Vietnam does D with the outcome of [1, 4].

The U.S. would choose A, with the outcome of [2, 3].

If Vietnam does C, then the U.S. does A with the outcome of [4, 2].

If Vietnam does D, then the U.S. does A with the outcome of [2, 3].

Vietnam would choose D, with the outcome of [2, 3].

From this analysis, we can conclude that there is no benefit to either the U.S. or Vietnam for moving first. Next, we want to analyze the possibility of using a threat against Vietnam.

The U.S. wants Vietnam to accept military alliance and economic support (strategy C), so the threat is placed on strategy D. If Vietnam chooses D and the U.S.

does the opposite of what they would normally do (choose A), then the U.S. does B, with outcome [1, 4] rather than [2, 3]. This does not hurt Vietnam, so it is not a threat to them. Once again, this scenario is actually Vietnam's best possible outcome.

Next, we analyze the possibility of using a promise to compel Vietnam towards a more formalized military alliance. The promise is placed on strategy C. If Vietnam does accept military alliance and economic support package (strategy C) and the U.S. hurts itself, they execute strategy B with outcome [3, 1]. This hurts Vietnam and the U.S. so it is not a promise. Once again, we discovered that in this game there is no way for the U.S. to influence Vietnam into accepting the formal military alliance even with the economic support package. In order for it to be a promise it must be beneficial to Vietnam and disadvantageous to the United States.

In a further attempt to use game theory to evaluate whether the U.S. can influence Vietnam into a more formalized military relationship, an Interval Scale¹⁰⁶ (Figure 16) from one to ten will be used to weigh the options for the U.S. and for Vietnam. The options were ranked with ten being the best and one being the worst. In this situation, the "best" option for the U.S. (which is awarded a "10") is to offer a military alliance and an economic support package to Vietnam and Vietnam accept the offer. This gives the U.S. what it wants, which is a military alliance with Vietnam to counterbalance the assertiveness of China. Moreover, this option best supports its goals and national interests. The "next best" option for the U.S. (which is awarded a "9") is to not offer Vietnam any support but the Vietnamese request the support. We decided that this option is the next best option because although it means that Vietnam is distancing itself from China, the terms of the support package is not determined by the U.S. and may not meet all of its goals and national interests. The "least good" option for the U.S. (which is awarded a "5") is to offer Vietnam a military alliance with economic support package and Vietnam refuses the offer. This is the current situation that we are analyzing, the status quo. Finally, the "worst" option for the U.S. (which is awarded a "1") is to not offer Vietnam anything and Vietnam refuses any offer from the United States. This means that

¹⁰⁶ For more information on Interval Scaling and Utility Theory see Straffin, *Game Theory and Strategy*, 49–55.

the U.S. does not have any influence or leverage on Vietnam at all. This is the worst option for U.S. goals and interests in Southeast Asia and the South China Sea because Vietnam is also modernizing its military and challenging the assertiveness of China.

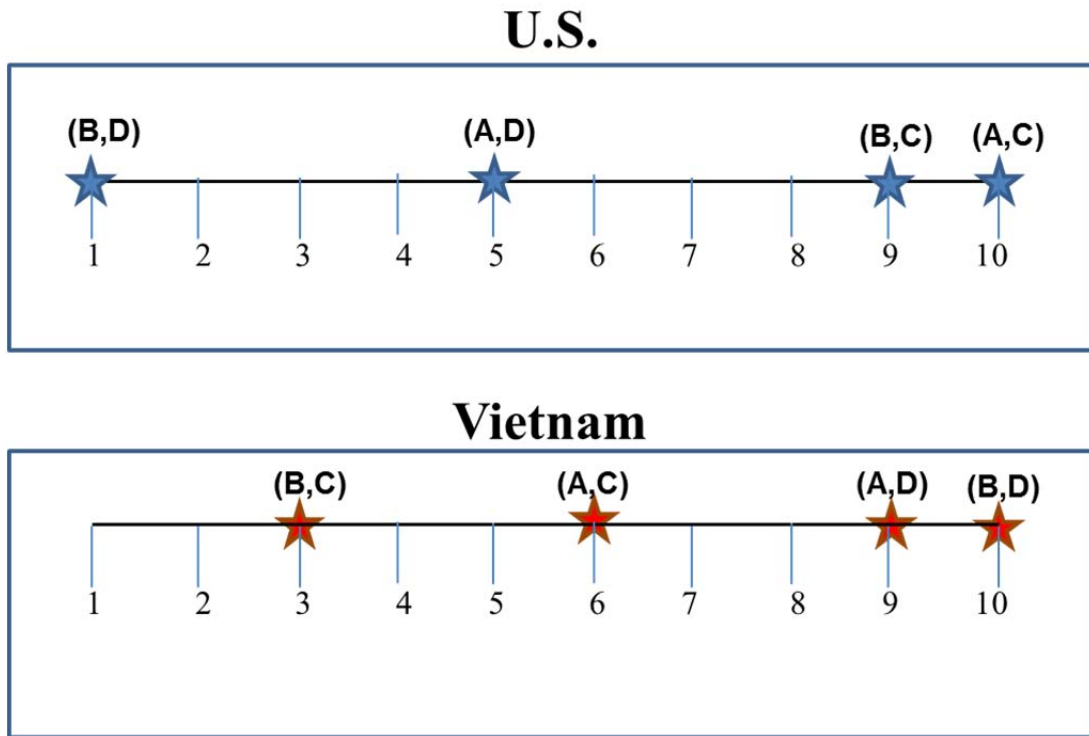


Figure 16. Interval Scaling

For Vietnam, its “best” option (which is awarded a “10”) is for the U.S. not to offer any military alliance or support package at all. Vietnam would rather not have to decide between the U.S. and China. Vietnam’s “next best” option (which is awarded a “9”) is to refuse the military alliance and support package offered by the United States. With this option Vietnam can continue to enjoy the current economic benefits from the U.S. and China without having to align itself with any one superpower and risk upsetting the other. This is the current omni-directional foreign policy of Vietnam as discussed in the previous chapters. The “least good” option for Vietnam (which is awarded a “6”) is to accept the military alliance and economic package offered by the United States. Although relations are improving steadily between the U.S. and Vietnam, China is still Vietnam’s number one trading partner, and geographically, China will always be their neighbor. The

“worst” option for Vietnam (which is awarded a “3”) is for it to accept a military alliance and support package from the U.S. when it is not being offered. This essentially means that Vietnam is requesting an alliance with the United States. This can only happen if China becomes too aggressive and threatens Vietnam’s independence and national sovereignty. In the past, Vietnam allied itself with a distant superpower, the Soviet Union, against China and the result was disastrous.

We then assigned cardinal values to the range of possible outcomes for the U.S. and Vietnam. The cardinal values will be used in the payoff matrix.

		Vietnam	
		Accept Support C	Don't Accept Support D
U.S.	A Offer Military & Economic Support	(10, 6)	(5, 9)
	B Don't Offer Support	(9, 3)	(1, 10)

Figure 17. U.S.-Vietnam Relations with Cardinal Values

Now, with cardinal values, we analyzed the strategic moves available to the U.S. Both the U.S. and Vietnam have the same dominant strategies as previously AD with the Nash Equilibrium being [5, 9]. The maximin values are now [5, 9]. This tells us that without communications, the likely outcome is still AD—U.S. offers military alliance and economic support and Vietnam refuses to accept the support. We continue our analysis to see if this outcome could be modified.

If the U.S. does A, then Vietnam does D with the outcome of [5, 9].

If the U.S. does B, then Vietnam does D with the outcome of [1, 10].

The U.S. would choose A, with the outcome of [5, 9].

If Vietnam does C, then the U.S. does A with the outcome of [10, 6].

If Vietnam does D, then the U.S. does A with the outcome of [5, 9].

Vietnam would choose D, with the outcome of [5, 9].

From this analysis, we can conclude that there is once again no benefit to either the U.S. or Vietnam for moving first. Next, we want to analyze the possibility of using a threat against Vietnam.

The U.S. wants Vietnam to accept support (strategy C), so the threat is placed on strategy D. If Vietnam chooses D and the U.S. does the opposite of what they would normally do (choose A), then the U.S. does B, with outcome [1, 10] rather than [5, 9]. This does not hurt Vietnam, so it is not a threat to them. Once again, this scenario is actually their best possible outcome.

Next, we analyze the possibility of using a promise to compel Vietnam towards a more formalized military cooperation. The promise is placed on strategy C. If Vietnam does accept the military alliance and economic support package (strategy C) and the U.S. hurts itself, they execute strategy B with outcome [9, 3]. This hurts Vietnam and the U.S. so it is not a promise. Again, for it to be a promise it must be beneficial to Vietnam and disadvantageous to the United States.

Once again, we discovered that in this game there is no way for the U.S. to compel Vietnam into accepting a formal military alliance with an economic support package.

E. CONCLUSION

In this chapter, we applied game theory, specifically Strategic Moves, to test the thesis question: Can the U.S. compel or influence Vietnam to accept a formal military alliance to balance the assertiveness of China in the South China Sea? Similar to the conclusion drawn from the historical analysis chapter, game theory concludes that currently the United States cannot compel or influence Vietnam toward a formal military alliance.

Cardinal interval scaling indicates currently there is an uphill battle for the United States. The difference 9 and 6 represent 30% of the scale used to measure Vietnam's

utility. From the Vietnamese perspective, other influences and incentives must be added to make the payoff AC [10, 6] more desirable than AD [5, 9].

As stated in the U.S.-Vietnam relations chapter, Vietnam wants to be less dependent economically on China. Vietnam wants a Free Trade Agreement (FTA) with the U.S. and it also wants to be added to the Generalized System of Preferences (GSP) to be free from the Chinese economic domination. Therefore, if the U.S. can offer Vietnam the FTA and GSP it is possible that the difference between 9 and 6 could be reduced.

V. CONCLUSION AND RECOMMENDATIONS

Since the fall of Saigon on April 30, 1975, the overall relationship between the United States and Vietnam has improved dramatically. The U.S. is Vietnam's number one source of foreign direct investment and its second largest trading partner. The recent increase in high level diplomatic and military leadership visits suggest that the U.S. and Vietnam are ready to take their relationship to the next level. Moreover, China is increasing its defense spending and becoming more confrontational in its overlapping claims with Vietnam in the South China Sea. More importantly, the U.S. has clearly stated that accessibility and freedom of navigation in the South China Sea is among its core interests. It is therefore natural for U.S. decision makers to pose the question: can the U.S. influence or compel Vietnam toward a more formal military alliance to balance the assertiveness of China in the South China Sea?

To analyze the feasibility of the question, this thesis first examined the historical bilateral relationships between the U.S.-Vietnam and China-Vietnam. It also examined the importance of the South China Sea and the past and current disputes in the region. In studying the historical relationships between the three countries and importance of the South China Sea, this thesis identified the national goals and interests of the players. More importantly, through the studies of past diplomatic, economic, and security relations with the United States and China, this thesis clearly identified the vital interests of the Vietnamese government. The vital interests of the Vietnamese government are regime stability, national independent and economic development. These vital interests are interdependence because in order for the Vietnamese Communist Party (VCP) to maintain its legitimacy and stay in power, the country must continue to grow economically; in order for Vietnam to continue to receive foreign investments and maintain its economic growth, it must maintain its national sovereignty; and finally, in order to protect its national independence, the VCP must maintain its monopoly on power.

Next, this thesis used the identified goals and interests of the U.S. and the vital interests of Vietnam to set up a two by two game theory model of Strategic Moves.

Strategic Moves empirically demonstrated that under the current situation, the United States does not have any workable threats, promises, or the combination of threats and promises to compel or coerce Vietnam toward a military formal alliance to balance the assertiveness of China in the South China Sea. Game theory indicated that currently there is an uphill battle for the United States. Although, it may be possible for the U.S. to assist Vietnam to lessen its dependency on China if the U.S. would offer other economic incentives that Vietnam is requesting from the U.S. such the Generalized System of Preferences (GSP) and the Free Trade Agreement (FTA).

Having analyzed the historical conflicts and the current disputes between China and Vietnam in the South China Sea, it is clear that Hanoi views Beijing's military strength as a threat, although it is currently not an existential threat. Vietnam learned through inconsistencies by distant superpowers that foreign military alliances are temporary, but its borders with China are permanent. Therefore, this thesis concludes that until the Chinese military becomes an existential threat to Vietnam, the United States cannot influence Vietnam toward a formal military alliance to balance the assertiveness of China in the South China Sea. That being the case, perhaps we should reframe the question and ask, should the U.S. even attempt to influence Vietnam toward a formal military alliance? Based on game theory empirical evidence, it is demonstrated that the answer should be "no" as well.

The challenge of the U.S.-Vietnam military relationship is succinctly summed up in this statement, "The Vietnamese do not respond well to people telling them what to do or how to do it, so the strategy would have to come from their own time and in their own way."¹⁰⁷ For the Vietnamese leadership, Vietnam's ability to maintain its vital interests is through economic strength and the diversification of its foreign relations and not through a formal military alliance with any one distant power such as the United States. They have realized that economic development is supreme; and to maintain Vietnam's national sovereignty and legitimacy for the Communist Party, Vietnam must participate in

¹⁰⁷ Casey Lucius, *Vietnam's Political Process: How education shapes political decision-making* (Routledge Contemporary Southeast Asia Series) Routledge, New York, NY, 2009, 80.

regional and international economic institutions such as ASEAN, APEC, TPP, and the WTO to become strong economically and eventually be more independent from China.

I recommend that U.S. policy makers and military leaders should understand Vietnam's position in reference to China and not push for a formal military alliance. In the last decade, military-to-military cooperation between the U.S. and Vietnam has increased tenfold. Although the relationship has not been tested, these seemingly friendly port visits and search and rescue naval exercises are great tools to build trust and confidence between the two militaries. The United States should continue to build and foster professional military relations with Vietnam at a pace that is comfortable to the Vietnamese. Strategic exchange programs between the U.S. National Defense University and Vietnam's National Defense Academy and the war colleges are taking place and should be encouraged to continue at a friendly pace.¹⁰⁸ The U.S. should continue to find common interests between our governments and militaries and capitalize on them. These common interests and confidence building activities include but not limited to: anti-piracy, freedom of navigation, environmental protection, economic development, and prevention of organized crime. These are areas where the U.S. can continue to deepen military-to-military contacts with Vietnam that will benefit both countries and have positive impact on the region.

Finally, in this thesis, I chose game theory's Strategic Moves because it offered useful diplomatic tools such as promises, threats, and the combination of both threats and promises to analyze the current U.S.-Vietnam bilateral relations. However, this thesis only scratched the surface with respect to U.S.-Vietnam relations, China-Vietnam relations, and U.S.-China relations. As the United States begins to pivot its attention from the wars in the Middle East to the Asia Pacific Region, more research into these three complex relationships is warranted. Moreover, there are other game theory models such as Cooperative Solutions and N-Person Games that can also be used to analyze the complex relationships between these three countries. While more research is needed, this

¹⁰⁸ Lewis M. Stern, "Building Strategic Relations with Vietnam." *Joint Forces Quarterly*, issue 65, (2d quarter 2012), 53-60, <http://www.ndu.edu/press/building-strategic-relations-with-vietnam.html> (accessed March 29, 2012).

thesis contributed in a unique way to the body of literature on U.S.-Vietnam relations by applying game theory to the contemporary relationship while taking into consideration the historical complexities of this dynamic partnership.

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