THE DETERMINANTS OF CONFLICT: NORTH KOREA'S FOREIGN POLICY CHOICES, 1960-2011

by

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B.A., Bethany College, 1988
M.A., Kansas State University, 2000
M.S., National Intelligence University, 2006

AN ABSTRACT OF A DISSERTATION

submitted in partial fulfillment of the requirements for the degree

DOCTOR OF PHILOSOPHY

School of Security Studies
College of Arts and Sciences

KANSAS STATE UNIVERSITY
Manhattan, Kansas

2014
Abstract

North Korea and the ruling Kim regime continues to present a unique security dilemma to both East Asia and the international community. The Kim regime's actions, which often include hostile military and diplomatic foreign policy actions, often seem inconsistent with parallel efforts to peacefully engage the international community.

This research examines the following question: what has been the historic relationship between North Korea’s domestic conditions and its propensity to engage in “hostile” diplomatic and military activities? I also consider whether the concept of diversionary theory, the idea that leaders pursue external conflict when faced with domestic problems, is an explanation for these actions. The study initially proposes there is a relationship between North Korea’s domestic challenges and its willingness to engage in conflict activities aimed primarily at South Korea and the United States. To test these ideas, I conduct a quantitative analysis of North Korean event data collected from both US and Korean sources from 1960-2011 and a qualitative analysis of three case studies.

My findings provide only limited support to the idea that internal conditions faced by the Kim regime influence its conflict behavior. More influential are a select number of external conditions, especially those involving South Korea, which often prompt North Korean responses and heightened conflict levels. This research also finds that the ruling Kim regime has often turned to diversion-type actions as a means to achieve domestic goals, yet diversionary theory itself is insufficient to explain these activities. North Korea represents an ongoing security dilemma for both East Asia and the international community and in this study, I demonstrate how historical and political science methods can be used to examine and explain the actions of this reclusive state.
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Dale R. Herspring, PhD
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This research examines the following question: what has been the historic relationship between North Korea’s domestic conditions and its propensity to engage in “hostile” diplomatic and military activities? I also consider whether the concept of diversionary theory, the idea that leaders pursue external conflict when faced with domestic problems, is an explanation for these actions. The study initially proposes there is a relationship between North Korea’s domestic challenges and its willingness to engage in conflict activities aimed primarily at South Korea and the United States. To test these ideas, I conduct a quantitative analysis of North Korean event data collected from both US and Korean sources from 1960-2011 and a qualitative analysis of three case studies.

My findings provide only limited support to the idea that internal conditions faced by the Kim regime influence its conflict behavior. More influential are a select number of external conditions, especially those involving South Korea, which often prompt North Korean responses and heightened conflict levels. This research also finds that the ruling Kim regime has often turned to diversion-type actions as a means to achieve domestic goals, yet diversionary theory itself is insufficient to explain these activities. North Korea represents an ongoing security dilemma for both East Asia and the international community and in this study, I demonstrate how historical and political science methods can be used to examine and explain the actions of this reclusive state.
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<thead>
<tr>
<th>Acronym</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>2ID</td>
<td>Second Infantry Division (US)</td>
</tr>
<tr>
<td>BOK</td>
<td>Bank of Korea (South Korea)</td>
</tr>
<tr>
<td>CINC</td>
<td>Composite Index of National Capabilities</td>
</tr>
<tr>
<td>CINCPAC</td>
<td>Commander in Chief Pacific (US)</td>
</tr>
<tr>
<td>CNTS</td>
<td>Cross National Time Series</td>
</tr>
<tr>
<td>COW</td>
<td>Correlates of War Project</td>
</tr>
<tr>
<td>CPX</td>
<td>Command post exercise</td>
</tr>
<tr>
<td>DMZ</td>
<td>Demilitarized Zone</td>
</tr>
<tr>
<td>DON</td>
<td>Dimensions of Nations Project</td>
</tr>
<tr>
<td>DPRK</td>
<td>Democratic People’s Republic of Korea (North Korea)</td>
</tr>
<tr>
<td>DVAR</td>
<td>Dependent variable</td>
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<tr>
<td>FOIA</td>
<td>Freedom of Information Act</td>
</tr>
<tr>
<td>FTX</td>
<td>Field training exercise</td>
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<tr>
<td>GDP</td>
<td>Gross domestic product</td>
</tr>
<tr>
<td>HFP</td>
<td>Hostile foreign policy</td>
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<tr>
<td>IAEA</td>
<td>International Atomic Energy Agency</td>
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<tr>
<td>ICBM</td>
<td>Intercontinental Ballistic Missile Program</td>
</tr>
<tr>
<td>IMR</td>
<td>Infant Mortality Rates</td>
</tr>
<tr>
<td>IVAR</td>
<td>Independent variable</td>
</tr>
<tr>
<td>JCS</td>
<td>Joint Chiefs of Staff (US)</td>
</tr>
<tr>
<td>KATUSA</td>
<td>Korean Augmentee to the United States Army</td>
</tr>
<tr>
<td>KEDO</td>
<td>Korea Peninsula Energy Development Organization</td>
</tr>
<tr>
<td>KIA</td>
<td>Killed in action</td>
</tr>
<tr>
<td>KIS</td>
<td>Kim Il-sung (“father” of the North Korea)</td>
</tr>
<tr>
<td>KJI</td>
<td>Kim Jong-il (son of KIS)</td>
</tr>
<tr>
<td>KJU</td>
<td>Kim Jong-un (son of KJI and grandson of KIS)</td>
</tr>
<tr>
<td>KPA</td>
<td>Korean People’s Army (North Korea)</td>
</tr>
<tr>
<td>KR-FE</td>
<td>KEY RESOLVE – FOAL EAGLE</td>
</tr>
<tr>
<td>MAC</td>
<td>Military Armistice Commission (in Korea)</td>
</tr>
<tr>
<td>MID</td>
<td>Militarized interstate dispute</td>
</tr>
<tr>
<td>MDL</td>
<td>Military Demarcation Line</td>
</tr>
<tr>
<td>MND</td>
<td>Ministry of National Defense (South Korea)</td>
</tr>
<tr>
<td>MPS</td>
<td>Ministry of Public Security (North Korea)</td>
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<tr>
<td>NDC</td>
<td>National Defense Commission (North Korea)</td>
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<tr>
<td>NKAIF</td>
<td>North Korean Air Force</td>
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<tr>
<td>NLL</td>
<td>Northern Limit Line</td>
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<tr>
<td>NPT</td>
<td>Nuclear Non-Proliferation Treaty</td>
</tr>
<tr>
<td>NVA</td>
<td>North Vietnamese Army</td>
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<tr>
<td>PRC</td>
<td>People’s Republic of China (China)</td>
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<tr>
<td>PSI</td>
<td>Proliferation Security Initiative</td>
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<tr>
<td>ROK</td>
<td>Republic of Korea (South Korea)</td>
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<tr>
<td>SCA</td>
<td>Strategic conflict avoidance</td>
</tr>
<tr>
<td>SOFA</td>
<td>Status of Forces Agreements</td>
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<tr>
<td>SPA</td>
<td>Supreme People’s Assembly (North Korea)</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Full Form</td>
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<tr>
<td>--------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>UFG</td>
<td>ULCHI FREEDOM GUARDIAN</td>
</tr>
<tr>
<td>UN</td>
<td>United Nations</td>
</tr>
<tr>
<td>UNC</td>
<td>United Nations Command (in Korea)</td>
</tr>
<tr>
<td>UNCURK</td>
<td>UN Commission on the Unification and Rehabilitation of Korea</td>
</tr>
<tr>
<td>UNSC</td>
<td>United Nations Security Council</td>
</tr>
<tr>
<td>US</td>
<td>United States</td>
</tr>
<tr>
<td>USFK</td>
<td>United States Forces Korea</td>
</tr>
<tr>
<td>WIA</td>
<td>Wounded in action</td>
</tr>
<tr>
<td>WGI</td>
<td>World Governance Indicators</td>
</tr>
<tr>
<td>WMD</td>
<td>Weapons of mass destruction</td>
</tr>
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</table>
Acknowledgements

The dissertation began during my first assignment to South Korea as a U.S. Army officer in 1995. During that tour of duty, I experienced firsthand the unique security situation that exists on the Korean peninsula. Two years later, I found myself married to someone from Seoul: thus, personal experiences initially shaped my view of the Koreas. During my next Army assignment, I taught ROTC classes at Kansas State University and political scientists on campus such as Dale Herspring, Emizet Kisangani, and Jeff Pickering served as mentors and friends during my own graduate studies on international conflict. These same individuals were instrumental in my decision to return to Kansas State as a doctoral student in the Security Studies program and, along with my other PhD committee members (David Graff, Andrew Long, and Kristin Mulready-Stone), were my guides throughout the process. Many other instructors at Kansas State, including Sabri Ciftci and David Stone, also helped me navigate between the worlds of political science and history and to understand the tremendous advantages of using both disciplines to examine the behavior of states, such as North Korea.

Until the summer of 2012, my dissertation work included research at night and on weekends in addition to my “day job” as a military officer. That year, the U.S. Army assigned me to a one-year fellowship at the Center for Strategic Intelligence Research (CSIR) at the National Intelligence University. This experience provided the time and support to finish most of this project. I am grateful to the exceptional individuals at CSIR: Cathryn Thurston for accepting my fellowship application and for creating an atmosphere which allowed for serious academic work; Mike Petersen for his positive attitude, guidance and advice; Katherine Pujanauski and Kris Inman for their exceptional technical assistance; and Kathy Culclasure who always seemed to have an answer for anything else that I had questions about. Additionally, the other academic fellows in the program, Andy Salamone and Kevin Wirth, sat in adjacent cubicles and were constant sources of both inspiration and distraction (both of which were sorely needed at times). A number of other military professionals (both here in the US and in Korea) were extremely helpful, and without their support for both this project and other adventures throughout my career, none of this would have been possible. While the individuals listed above
were all instrumental in my efforts to complete both the KSU Security Studies PhD program and this dissertation, this work is mine alone to include any flaws in analysis or omissions of fact.

Finally, my family has given me overwhelming support and provided the inspiration to do this. My parents fostered an atmosphere at home that provided not only love, but also everything needed to be successful, and I am thankful for all they have done. Additionally, my wife and children, who inspire me daily, have tolerated years of work at night and on weekends, a necessary inconvenience (among many) required for this research. Finally, my service in the US Army has provided a series of incredible experiences, as both an academic and a military officer, that have helped me to better understand the complexities surrounding conflict between the Koreas. I am humbled by this opportunity and hope to contribute, in a small way, to a better understanding of the constant state of tension that currently exists in a place that I know well.¹

¹ The statements of fact, opinion, or analysis expressed in the dissertation are those of the author and do not reflect the official policy or position of the U.S. Government, the Department of Defense, or any of its components. While this dissertation is based on academic work done under the auspices of Kansas State University, it has been approved for public release by the Defense Intelligence Agency, Case 13-117.
Dedication

For my parents.
Preface

Almost thirty years before my first trip to South Korea, my own father directly supported ROK ground troops deployed to Vietnam. As a US Army helicopter pilot, he provided air-mobile support to ROK combat units in South Vietnam during Operation Kil Tong Hong in 1967. Between 1969 and 1971, I lived with my family in the Philippines near Clark Air Force Base, while my father coordinated logistical support for US troops in Vietnam. At the same time, two-thousand miles away in Korea, ROK and US troops were also fighting together against the North Koreans along the DMZ. Forty years later, the tension between the Koreas remained as dangerous as it was in the 1960s and the stakes are much higher. My own experiences in Korea began in 1995 and included late nights in operation centers, “no-notice” emergency meetings and briefings, and military training events that ranged from the tactical to strategic level. These events and experiences were influenced by not only North Korea, but also by other key actors within the region (the US-ROK alliance, China, Japan, and Russia). These countries, and the international community, are concerned with North Korea’s development and acquisition of sophisticated conventional weapons and nuclear technology. While the probability of a catastrophic event or war remains low, the possibility remains.

Over the years, the DPRK regime has shown a surprisingly consistent foreign policy, focused on national sovereignty and ensuring that the Kim family remains in power. It also continues to oppress its own people as a means to this end. Yet Western policies towards North Korea are often based on the “crisis of the moment” rather than a long-term consideration of DPRK activities. A better understanding of the nature and incidence of political and military conflict on the Korean peninsula might spur better international responses or confirm the usefulness of current ones. My research is a unique effort to examine this closed state using systematic and analytical methods to scrutinize the Kim regime’s choices to use hostile acts to achieve foreign policy goals.
Chapter 1 - Introduction

North Korea defines its military actions as part of a historical continuum and...will continue to use force as the single most important policy tool in the foreseeable future.

Narusige Michishita (2009)

North Korea uses both diplomatic threats and armed force to advance its own political, socio-economic, and military agendas. These include assassination attempts against South Korean political leaders, terrorist-style bombings, kidnapping of civilians, border clashes with ROK and US troops, missile tests, and most recently, the development of nuclear weapons. Unfortunately, the opaque nature of North Korea’s government and society makes efforts to understand and explain these activities difficult. The DPRK is a rare exception among modern states where the government permeates throughout society, maintaining significant control over its population. While North Korean-produced information is often either unreliable or impossible to obtain, data and methods do exist that have the potential to explain why the Democratic People’s Republic of Korea (the DPRK or North Korea) chooses foreign policy actions ranging from cooperation to the use of military force. This dissertation seeks to explain North Korea’s foreign policy behavior, focusing on its use of force in relation to the domestic and international conditions it faces.

In this dissertation, I examine the following question: What has been the historic relationship between the domestic conditions faced by North Korean leaders and their propensity to engage in “hostile” diplomatic and military activities? Additionally, I examine whether or not the concept of diversionary theory is an explanation for these actions. The study initially proposes there is a negative relationship between domestic conditions and external conflict activities. Specifically, I proposed that as domestic conditions in North Korea deteriorate, the incidence of DPRK-initiated conflict actions increase. To test these ideas, I conduct a quantitative analysis of North Korean event data collected from both US and Korean sources from 1960-2011 and a qualitative analysis of three case studies.

I initially argue that North Korea uses diplomatic pronouncements, political maneuvering, and military force to achieve its policy objectives and these events are dependent on internal conditions faced by the Kim regime. I propose that diversionary theory (the idea that leaders seek to distract the public from domestic conditions) is a possible explanation for why
the Kim regime has historically chosen to engage in these types of hostile actions. Most international relations scholars readily admit that domestic factors influence foreign policy, yet the linkages between local conditions and international actions by authoritarian states are often difficult to identify. North Korea’s foreign policy activity might also be susceptible to domestic influence, similar to Western democracies, or Pyongyang might be “exempt” from these types of influences due to its seemingly total control of North Korean society. The international community seeks stability and prosperity for East Asia and thus a better understanding of the determinants of North Korea’s foreign policy activity can be a valuable contribution to this end.

1.a. Problem Statement

This study seeks to identify and analyze links between the conditions faced by North Korea and its foreign policy actions. North Korea poses a security concern for not only East Asia, but also the entire international community with its demonstrated nuclear, conventional, and asymmetric military capabilities and willingness to leverage these to attain foreign policy goals. Although conceived as a socialist state, North Korea has developed into a military dictatorship with an established “cult of personality” society with a large standing army and a wide array of military capabilities. As Cho (2009, 1) observes, “North Korea presents a dual challenge as a newly-nuclear global rogue state and, at the same time, a traditional regional security problem.” The tense relationship between North Korea and its neighbors has resulted in continuous efforts by South Korea (and its main ally, the US) to attain the military capacity to deter the North from hostile military activity. Despite the hope of change in the DPRK after the death of Kim Jong-il in 2011, the “new Kim regime” led by his son (Kim Jong-un) has shown surprising continuity with North Korea’s historic trends of conflict and suppression.

North Korea routinely initiates both localized and international “provocations,” often considered both inexplicable and unprovoked by the outside world, with regional and global implications. Pyongyang’s efforts to maintain control over its population, aggressive defense posture, military buildup and repositioning of forces, routine clashes along its borders, nuclear proliferation and provocative statements all cause concern for its neighbors and the international community. As Kongdan Oh (2000, 185) notes,

The basic problem is that the principles that the Kim regime pursues…are incompatible with the principles of the dominant Western states. Threatened by this incompatibility, the Kim regime resorts to harsh totalitarian measures…while pursuing a policy of military strength and state-sponsored crime to carve out a
place in a post-cold war environment that is becoming increasing hostile to oppressive regimes.

This “incompatibility” results in an environment of consistent tension within East Asia and an ongoing security dilemma for regional actors (including the United States). These tense international conditions, North Korea’s domestic challenges, and the DPRK’s hostile foreign policy activity all form the basis for this research effort.

1.b. Study Significance

The closed nature of North Korea regime makes the ruling Kim regime extremely difficult to study. One of the primary goals of this research is to provide an example of how scholars and policymakers can use available information to examine the characteristics of North Korean conflict behavior. In this research, I examine quantitative and qualitative data to test the idea that either internal or external influences form the basis of DPRK conflict. While this type of analysis is common in international relations scholarship, few studies attempt this with North Korea. Instead, current scholarship on the DPRK focuses solely on the current threat posed by the DPRK and outputs often include short term, time-sensitive policy recommendations, or historical views of North Korean activities. Notable past research efforts includes assessments by academic and government sources, which often provide important analyses of North Korean society, politics, and provocative actions, but there are few systematic empirical analyses of the motives or conditions related to the Kim regime and its activities. Additionally, only a handful of cross-national research efforts attempt to analyze North Korean political and military activity using modern social science methods.

Additionally, there have been a number of useful studies on theoretical approaches to the causes of interstate conflict and state interactions (Waltz 1954 and 1979; Wendt 1992; Bueno de Mesquita and Lalman 1992; Putnam 1988; Morgan and Bickers 1992). Other studies exist that

2 For example, scholars such as Cha (2012), Hassig and Oh (2009), Martin (2006), and Cumings (2005) all provide excellent qualitative accounts of North Korea from a political, societal and historical perspective.

3 There have been some generalized studies on authoritarian conflict behavior that have included North Korea (Lai and Slater 2006; Kisangani and Pickering 2007). Additionally, Davies (2005; 2006; 2007) analyzed the effect of US policy on North Korea. Yet, the only systematic study of North Korean-initiated conflict is qualitatively-focused (Michishita 2009).

4 The “traditional theorist” view of interstate activity (Waltz 1954 and 1979; Wendt 1992) focuses on external causes of conflict (international system or a state’s perception of the international environment), but overlook influence of domestic conditions. Bueno de Mesquita and Lalman (1992) downgrade of the importance of
focus on the domestic determinants of conflict behavior to include Peceny and Beer (2003), Lai and Slater (2006), Sobek (2007), Bell (2009), Li, James, and Drury (2009), Pickering and Kisangani (2005, 2007, 2009, 2010), and Bak and Palmer (2011). Unfortunately, those research efforts often prove inadequate when applied to the inter-Korean security dilemma because they omit analysis of the unique security characteristics that exist in East Asia. My research on North Korea seeks to enhance and build upon previous projects that examine the relationships between internal conditions and external uses of force.  

One study that is comparable to this project is Narushige Michishita’s 2003 dissertation and his expanded case studies and longitudinal research (2009) on North Korea’s diplomatic history and use of military force. Michishita (2009, 2-3) proposes that North Korea’s conflict activity focused was not based on reactions to domestic conditions or a “hostile international environment.” He notes that diversionary theory is most likely not a factor for North Korea’s activities, but in correspondence, he comments that examining the question was important (Michishita 2011). While Michishita’s research provides an excellent basis for this project, he uses only qualitative methods to analyze North Korean conflict behavior. The use of a mixed-method approach (using quantitative and qualitative analysis) might have provided more support for his conclusions.

Additionally, while Michishita dismisses the effect of domestic influences on external conflict activity, he does identify instances of this behavior in his text. In several passages, he mentions the linkage between North Korea’s initiation of conflict activities and domestic realist theories (and focus on the importance of domestic factors) and provide useful support to the idea that domestic factors influence international activity, but do not directly address these concepts in relation to the Korean regimes. Putnam (1988) uses a “two-level approach” to diplomacy assumes that national leaders are subject to the whims of their constituents (which is not always the case in inter-Korean dilemmas). Morgan and Bickers (1992) focused exclusively on democratic governments in their study and provided useful information, but this is of limited value when considering the characteristics and actions of communist North Korea.

Prior scholarship on diversionary theory provides a wide-ranging and diverse theoretical basis for this study. For example, Peceny and Beer (2003) argue that autocracies do not follow the same rules as other polities because reelection and public opinion are less influential in these societies. Lai and Slater (2006) observe that legitimacy is an indicator of conflict propensity for authoritarian regimes: the more legitimate, the less likely the regime will initiate conflict. Sobek (2007) identified the benefits of diversionary force and the incentives leaders have to engage in “violent adventures.” Bell (2009) examines the relationship between diversionary activities and transparency and contends that increased transparency results in decreased diversionary force. Li, James, and Drury (2009) provide one of the only quantitative studies of diversionary activity in East Asia in their research on Taiwan and mainland China. Pickering and Kisangani (2005; 2007; 2009; 2010) have done extensive work on diversionary force use by autocracies under conditions of internal unrest or economic difficulties. Finally, Bak and Palmer (2011) argued that for authoritarian leaders, domestic factors constrain their tendency to engage in diversionary activities.

Michishita (2009) examines eight case studies spanning 40 years.
concerns of the Kim regime. For example, he acknowledges that the 1966-1968 DMZ and the USS Pueblo incidents were possibly intended to strengthen Kim Il-sung’s status both at home and abroad (Michishita 2009, 31, 50). Michishita (2009, 92) also notes that North Korea’s 1976 Axe Murder Incident helped bolster the position of Kim Jong-il as the future leader of the regime. He additionally identifies partial associations between North Korea’s nuclear threats in 1994, missile testing and proliferation activities, West [Yellow] Sea naval clashes and efforts by the Kim regime to maintain power (Michishita 2009, 114, 135, 160). Finally, Michishita (2009, 186) comments that North Korea’s nuclear test in 2006 was “extensively used for domestic propaganda purposes. After the nuclear test, words of celebration appeared in every corner of the nation.” This analysis, along with observations by other scholars and policy practitioners (including my own research), provides the background for new research (such as this project) to examine the relationships between North Korea’s domestic conditions and external conflict behavior.

The only other influential study found during this research is Jung’s (2012) analysis of North and South Korean conflict behaviors. Jung (2012) examines the relationship between internal conditions and external conflict using a mixed-methods approach to analyze the applicability of diversionary theory and other explanations of conflict. Jung’s (2012) study includes two case studies, one on South Korea’s deployment of troops in support of American forces in Vietnam during the 1960s and the North Korean nuclear crisis in the 1990s. Additionally, Jung (2012, 168-169) adds a quantitative cross-national analysis to the case studies and concludes that there is a complicated relationship between domestic unrest and interstate conflict. In his analysis of the two Koreas, Jung (2012, 169) states, “political leaders are motivated by domestic unrest to initiate military aggression but also constrained by foreign conditions.”

These two studies provide an important, although limited, foundation for the examination of internal conditions and ongoing conflict between the Koreas. Although there have been a limited number of other studies that include data on conflict involving the Koreas, none have

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7 Jung (2012, 168-169) notes that the quantitative analysis showed that the presence of a “rising power, the territory target, and the hegemony target” all contribute to a relationship between interstate conflict and domestic unrest.

8 These include Clark, Fordham and Nordstrom (2011); Kim (2010); Kisangani and Pickering (2007); Davies (2005, 2006, 2007); Fordham (2005); Bueno de Mesquita et al. (2004); Peceny and Butler (2004); and Peceny, Beer, and Sanchez-Terry (2002).
used a mixed-method approach focused solely on the relationship between North Korean hostile actions and internal conditions. In this study, I use social science analytical methods and a middle range international relations concept (diversionary theory) to examine and attempt to explain DPRK-initiated conflict activities. These same methods have been used extensively to study Western nations and, at the very least, will provide an example of an approach to the analysis of opaque nations, demonstrating the importance of using social science methods to analyze similar regimes.\(^9\)

This single-country longitudinal study provides an in-depth analysis of DPRK-initiated hostile foreign policy on the Korean peninsula from 1960 to 2011. Although there are merits to comparing the Korean situation with other authoritarian states (as in cross-sectional studies), the focus of this research seeks to conduct a thorough analysis of DPRK-initiated diplomatic or armed conflict and to identify and explain relationships in Korean-specific cases. While the findings may offer limited generalizability, the methods have broad applications in the analysis of other “limited-information” states. This study provides an example of how to gather and analyze data on an authoritarian state with limited outside access: the North Korean regime remains arguably the most closed garrison state that exists today. This research is both relevant to the “real world” and makes a “specific contribution” to existing literature: conditions that King, Keohane, and Verba (1996, 15) identified for useful academic scholarship.

This research effort also strives to apply methods that include the “best practices” from both historians and political scientists as both fields have much to offer to the study of conflict. While historical narratives often lack comparability and breadth, political science research is often too focused on methodologies, theoretical discussions, and quantitative analysis techniques that overlook the advantages of in-depth studies of particular events. This research uses both detailed examinations of specific cases and comparisons across time of the relationships between North Korea’s conflict events and external factors. As Levy (1997, 33) notes, “The worst abuse of each discipline is to ignore the other. History is too important to leave to the historians, and theory is too important to leave to the theorists.” This research blends two academic approaches in an effort to address a significant gap in current scholarship on DPRK conflict behavior.

1.c. Theoretical Concepts

North Korea’s foreign policy activities, as with most other nations, range from conflictual to cooperative relationships with external states. For example, economic cooperation with other nations does occur, and North Korea has gone to considerable effort to establish and maintain special economic zones with both China and South Korea (Lankov 2011). Yet the international community is most concerned with Pyongyang’s provocative foreign policy actions, which (at least on the surface) seem to demonstrate the Kim regime’s willingness to risk war to achieve its foreign policy goals. These “hostile foreign policy actions” (or HFP) include activities such as diplomatic threats, clandestine infiltrations into South Korea, naval clashes, and nuclear weapons testing.

1.c.1. Expanding the Scope of Foreign Policy Actions

Defining the concept of foreign policy can be problematic, and many studies of international relations and foreign policy activities omit definitions entirely. For international relations scholars studying state interactions, the term foreign generally denotes actions and entities that are focused or exist outside the state and the term policy represents a wide range of activities including “specific decisions (to sign a weapons treaty, for example) and general guidelines (to support human rights, for example)” (Kaarbo et al. 2002, 4). These actions can range from military activities to diplomatic communication between nations (in a cooperative or threatening manner). Foreign policy also constitutes an underlying philosophy of action used by a state to pursue its own best interests. Rochester (2008, 21) defines foreign policy as

...a set of priorities and guides for action that underlies a country’s behavior toward other states and includes both the basic goals a national government seeks to pursue in the world and the instruments used to achieve those goals.

Domestic concerns and foreign policy are inextricably linked and national efforts to maintain internal and external security. Foreign policy is also a tool used by states to maintain conditions that are supportive of the regime in power and is exercised through political, diplomatic, and military power (Sarkesian et al. 2008, 4). Foreign policy activities (policies)

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10 Rochester (2008, 21) notes, “Trying to define foreign policy is reminiscent of the judge in the obscenity case who said, ‘I can’t define it, but I know it when I see it.’ We all sort of know what is meant by the term.”
encompass a continuum of state actions ranging from cooperation to conflict and these descriptions help clarify these concepts.

Miroslav Nincic (1975, 624) defines *hostile foreign policy* as “emanating from bearers of official authority in each nation and directed toward other nations in the international system...[and]...a set of behaviors characterized by negative affect and/or the desire to impose deprivations.” Additionally, given this discussion and the unique characteristics of North Korea, the term *hostile foreign policy* consists of interactions or “events” involving two states. Events are defined as “Any overt input and/or output of the type ‘who does what to and/or with whom and when,’...[with] ramifications for the behavior of an international actor or actors and [is publicly] recorded” (Azar et al. 1982, 374).

1.c.2. Defining Hostile Foreign Policy Activity (the Dependent Variable)

Based on the discussion above on the scope of foreign policy actions, I define *hostile foreign policy (HFP)* activity as

Domestic or international actions by governments or government-sanctioned entities intended to negatively influence or detrimentally affect a target state through diplomatic, social, economic, or military activities ranging from provocative statements to hostile acts in support of national or regime goals.

This statement focuses on both *domestic* and *international* measures and the effects of these activities on target states. These actions are undertaken by *governments* or *entities* that are supported by the governments (either overtly or covertly) including foreign policy actions (events) by diplomats, economic organizations (domestic or international), and military actions that have either internal or external characteristics.\(^{11}\) This study focuses on foreign policy activities that intended to have *negative* or *detrimental effects* on the target state.\(^{12}\) These activities can include actions that are conducted directly against a target state (such as military conflict) or lesser actions that are intended to *influence* other states, including propaganda statements or an unwillingness to cooperate. Additionally, these activities span the full range of national power and include *diplomatic* actions by the government or its diplomats, *economic* measures with local or international effects, and *military* activities including exercises or actual

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\(^{11}\) These types of actions include events such as localized land-based military exercises or show of force operations in international waters.

\(^{12}\) Although concurrent study of the conditions of both conflict and cooperation is an important research topic, this dissertation focuses solely on the study of North Korean-generated conflict.
hostilities. Finally, these actions are linked to national leadership and efforts to retain both sovereignty and power: these are deliberate activities in support of national or regime objectives.

In the case of North Korea, this definition provides for the inclusion of a wide range of policy actions. Aside from military events, HFP activities also include North Korea’s routine use of propaganda statements and aggressive policy announcements, which often spur international concern. North Korea’s threat in 1994 to turn Seoul into a “sea of fire” was a warning of DPRK intentions to use nuclear weapons against the ROK and was conveyed by a Pyongyang diplomat (Financial Times 1994). Other provocative statements from the Kim leadership on the security situation, such as North Korea’s annual “New Year’s Statement,” often include threats from the civilian leaders of the DPRK against both the US and South Korea.

Economic activity that fits the category of “hostile foreign policy” often is directed against joint (North-South) economic ventures, such as the Kaesong Industrial Complex near the western border of North and South Korea and the Mount Kumgang Tourist Area on the east coast of the DPRK. For example, in August 2011, North Korea seized all South Korean assets at the Mount Kumgang and ended its joint venture with the ROK at that location (Chosun Ilbo 2011a; 2011b). Finally, North Korea’s military activities are the most visible of its hostile foreign policy actions and range from DMZ incidents and West Sea fishing vessel clashes to ballistic missile firings and nuclear tests. Yet there are limits to North Korea’s hostile actions, as the Kim regime does not intend to start a second Korean war. Rather the DPRK’s leaders are most likely focused on shaping the overall security environment to sustain North Korea’s national sovereignty and to ensure the Kim regime maintains control over the North’s government and society.

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13 This annual message, broadcast in North Korea and internationally via national television and print media, is somewhat similar to the United States’ yearly “State of the Union” address. It is intended for both domestic and international audiences and outlines key areas of progress and concern. For example, the 2011 message “warned the South’s [ROK] government to stop what it called ‘north-targeted moves’ and a ‘smear campaign’ against it [DPRK]” (Ramstad 2011).

14 This incident demonstrates the complexities of North-South relations. In 2008, North Korean guards killed a South Korean tourist for “trespassing in a military-controlled area” and the Kim regime has linked the seizure of assets to that incident (Chosun Ilbo 2011a). In 2011, North Korea began soliciting businesses in other nations (including China, Japan, and the US) to provide assistance in restarting tours to the area (Chosun Ilbo 2011b). While North Korea’s actions are partially inspired by its own economic objectives, the killing of the South Korean tourist became an international incident that triggered the closure of this resort and both negative actions and denunciations by North Korea.

15 War on the Korean peninsula would result in catastrophic effects, and most scholars agree that the Kim regime would not survive a large-scale conflict with South Korea and the US.
1.c.3. Domestic Conditions (the Independent Variable)

This research proposes that while many factors influence North Korea’s foreign policy, internal conditions are potentially the most significant influencers of hostile actions. The internal characteristics of North Korean society, while intensely controlled by the Kim regime, remain linked to political, social, or economic conditions. If these internal conditions become unstable or deteriorate, the resultant effects will have a detrimental influence on North Korean society as a whole. Several authors conceptualize this in terms of domestic challenges faced by the ruling regime. Dassel and Reinhardt (1999, 57) use the term “domestic strife,” defined as “the contestation of political institutions, or conflict over the basic rules governing political competition” while discussing diversionary activity and links this concept to external conflict behavior. Davies (2002, 682) uses several variables to measure “domestic strife” including riots, armed attacks, protests, and political strikes. Fordham (2005, 141) refers to “domestic economic and political conditions” as influential in the actions of US rivals to avoid conflict. Fordham (2005, 143) examines domestic political difficulties to include US economic conditions (unemployment, inflation, GDP growth) and rival states’ economic performance, using energy consumption as a proxy for economic growth.

This research considers both positive and negative domestic conditions and tests whether diversionary theory (which predicts an inverse relationship between domestic conditions and conflict) explains North Korean activities. The concept of domestic conditions for this study is generally represented as the conditions within a state (i.e. North Korea) that have effects on society from a political, economic, or social aspect.

For North Korea, political conditions that fall into this category (of domestic conditions) include regime stability and control DPRK society. Ake (1975, 273) defines political stability as “the extent that members of society restrict themselves to the behavior patterns that fall within the limits imposed by political roles expectations. Any act that deviates from these limits is an instance of political instability.” Gates et al. (2006, 907) add that it requires “institutional consistency” and that both autocracies and democracies have inherent characteristics that “self-enforce” political stability.

Economic conditions are often used to determine the internal stability of states. For North Korea, these are potentially indicated by proxy measures including the rise and fall of the DPRK’s gross domestic product (GDP) and the trade with foreign countries (how much the
DPRK imports and exports). These two indicators help determine the health of North Korea’s economy and relative dependence on external nations to support its domestic material needs.

Finally, the influencers of social unrest include the level of satisfaction that both the elites (privileged members) of society as well as the masses (ordinary citizens) feel towards the ruling government. Kisangani and Pickering (2007, 285) discuss elite unrest in terms of “government crises and purges” and mass unrest as characterized by “general strikes, riots, and anti-government demonstrations” in their analysis of the effects of diversionary military activities. Social unrest is also influenced by food, medical and energy shortages, health care capabilities and the number of North Korean citizens who flee the country (defectors). These factors are potential indicators of the ability of the DPRK to provide the basic necessities for its citizens. The three categories (i.e., political, economic, and social) of domestic “difficulties” form the basis for this study’s concept of the conditions which possibly cause diversionary behavior. For this study, I define domestic conditions as:

The actual or perceived political, economic, or social conditions that affect North Korean society including conditions that interfere with or enable the Kim regime’s ability to govern and maintain control over the DPRK population.

This definition assumes that conditions which threaten North Korea’s sovereignty or the Kim regime’s ability to govern could potentially spur diversionary behavior and conditions that support domestic stability result in decreased levels of external conflict.

1.c.4. The Concept of Diversionary Behavior

The concept of diversion focuses on domestic influences and may help clarify why North Korea chooses to use diplomatic threats and military force in some instances and not in others. I use diversionary theory to test the proposition that internal conditions can help explain North Korea’s hostile foreign policy activities. As a “middle-range” theory of international relations, diversionary theory contends that leaders, in times of crisis will commit their nations to external uses of force to alleviate the national focus from domestic to international issues. In other words, domestic leaders identify an external threat (or actor) and engage in heighten levels of hostile action in order to shift the nation’s attention away from internal troubles. As a result, this

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16 This concept has a number of names such as the diversionary theory of war, the diversionary hypothesis, diversionary force, or diversionary foreign policy (Levy 1989; Mitchell and Thyne 2010, 461-462; Kisangani and Pickering 2007, 278; Oakes 2006, 433-434).
external threat helps to alleviate focus on the domestic strife and ensure the leader's position in power.

Diversionary foreign policies provide advantages for leaders including the potential shift of public attention towards international issues and demonstration of the domestic “leader’s capacity for strong leadership” (Hagan 1986, 293). Other benefits of diversionary activities include increased domestic support, justification of a “crackdown” (such as martial law), diversion of public attention from issues that cause domestic dissatisfaction, and increased support to the regime due to “an in-group/out-group effect” (Sobek 2007, 31). Thus, leaders may have tangible incentives to attempt to divert public attention from domestic problems.

By analyzing North Korea’s hostile foreign policy activities and the Kim regime’s domestic conditions, this study seeks to identify the causal relationships between these two variables and to test the relevance of diversionary theory as an explanation. North Korea remains susceptible to the domestic pressures that potentially cause attempts to divert popular attention through aggressive foreign policies. By using a structured empirical (qualitative and quantitative) analytical approach, this research examines linkages between specific conditions and North Korean-initiated conflict actions. In the next chapter, I review the extant literature on the concept of diversion and diversionary theory to lay the groundwork for this research effort. The following two chapters include a quantitative analysis of DPRK conflict from 1960-2011 and the qualitative portion of the dissertation, in which I analyze three case studies of conflict on the Korean peninsula. Finally, I conclude with a comparison of the quantitative and qualitative research and provide my findings, policy implications, and recommendations for further research.
Chapter 2 - Diversionary Concepts and Historical Background

North Korea has used force to achieve its policy objectives, however idiosyncratic they might be, within the structural conditions it faces. 

Michishita (2009)

In this study, I use both a mixed social science methods (quantitative and qualitative analysis) and multidisciplinary approach (political science and history) to analyze North Korean conflict. Historians and political scientists approach the study of war often through distinctly different approaches. The historian generally uses an inductive approach by analyzing events and facts, which helps to determine the root causes of the conflict, the interconnectedness of key actors, and the overall impacts of these actions. Historians are less inclined to attempt to predict and more likely to provide evidence to academics and policymakers means to prepare for the future (Gaddis 1997, 84). Political scientists approach the study of war using deductive techniques. They formulate and test theories on the relationships between events or conditions and attempt to provide simple (“parsimonious”) and generalizable explanations as to why conflict occurs (Kellstedt and Whitten 2009, 4). Although historians and political scientists approach the study of conflict from different methodological perspectives, both fields generally agree that tension between nations remains an enduring characteristic of interstate activity and a crucial focus for academia. The seemingly unpredictable nature of “rogue states” such as North Korea makes the analysis and prediction of hostile foreign policy activities events a critical task.

While grand international relations theories may provide a perspective on the external determinants of state behavior, more recent scholarship on internal factors related to hostile foreign policy activities are more applicable in efforts to explain DPRK actions. A number of authors (Fearon 1994; Morgan and Bickers 1992; Putnam 1988; Bueno de Mesquita and Lalman 1992; Bueno de Mesquita et al 2003) emphasize domestic interests as an important mechanism for external uses of force. Middle range theories that link domestic and international politics

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17 From an international relations perspective, there is a tendency to categorize North Korean activity in terms of grand theory, especially structural realism (Bluth 2011, 14). The DPRK has limited allies, focuses on state survival, and often engages in activities to preserve its sovereignty and international status. “Middle range” behavioral theories (rather than traditional “grand” concepts), such as the diversionary hypothesis, offer possible explanations for the Kim regime’s foreign policy choices. International relations theorists now place less emphasis on grand theories and tend to favor “non-paradigmatic” theories (Maliniak et al. 2011, 439) and diversionary theory fits neatly in this category of non-traditional concepts.
(Rosenau 1969; Li 2008), such as *diversionary theory*, are much more applicable to the analysis of armed and political conflict on the Korean peninsula. The following paragraphs will discuss the extant research on diversionary theory, including a summary of the argument, criticisms, and recent developments in this field.

### 2.a. Literature Review

Historical anecdotes surrounding the use of diversion by national leaders to solve domestic tensions are abundant. Notable figures such as Machiavelli, Shakespeare, and Jean Bodin have commented on the unifying potential of diversionary foreign policy activity.\(^{18}\) Additionally, one of the most famous interstate conflicts, the Russo-Japanese War (1904-1905), began purportedly because Russia needed a “short victorious war to stem the tide of revolution” (Walder 1974, 56). A number of more recent conflicts have been associated with the diversionary use of force including the 1982 Falklands War, US invasions of Iraq in 1991 and 2003, US 1998 missile attacks against terrorist targets in Afghanistan and Sudan, and the conflict between Russia and Georgia in 2008 (Oakes 2006, 442; Kisangani and Pickering 2009, 485; Oreskes 1990, A21; Milbank 2002, A1; Purdum 1998, A1; Filippov 2009, 1844).\(^{19}\)

#### 2.a.1. Diversionary Theory as an Explanation for Conflict

The roots of diversion concepts are generally attributed to sociologist Georg Simmel who proposes that individuals and groups threatened by external forces would coalesce and cooperate, regardless of their differences.\(^{20}\) Simmel (1955 [1898], 91-92) observes,

...the group as a whole may enter in antagonistic relations with a power outside of it, and it is because of this that the tightening of the relations among its members

\(^{18}\)Machiavelli (1882 [1513], 73) was referring to diversionary behavior when he observes “…the present king of Spain…attacked Granada…[and] kept the nobles of the Castile occupied with this enterprise, and, their minds being thus engaged by war, they gave no attention to the innovations introduced by the king, who thereby acquired a reputation and an influence over the nobles without their being aware of it.” In his play *King Henry IV*, Shakespeare (1823 [1600], 295) comments, “Be it thy course to busy giddy minds with foreign quarrels; that action, hence borne out, may waste the memory of former days.” Additionally, Bodin (1955 [1606], 168) stated, “The best way of preserving a state, and guaranteeing it against sedition, rebellion and civil war is to keep the subjects in amity one with another, and to this end, to find an enemy against whom they can make common cause.”

\(^{19}\)This is not an inclusive list as many other conflicts have been associated with diversionary war such as the Franco-Prussian Wars, World War I, the United States’ war with Vietnam, and the 1996 conflict in Rwanda (Mayer 1969, 299; Lenin 1930, 76; Fordham 1998, 568; Pickering and Kisangani 2005, 23).

and the intensification of its unity, in consciousness and in action, occur...each element in a plurality may have its own opponent, but because this opponent is the same for all elements, they all unite – and in this case, they may, prior to that, not have had anything to do with each other...

Durkheim’s (1951 [1897]) studies on suicide and other research on the concept of the “in-group” versus the “out-group” (Sumner 1906) lent support to Simmel’s views. Others contest this idea and propose that internal disturbances and war were independent, concluding that external war was not required for initiating or ending domestic instability (Sorokin 1957). Alternatively, political scientist Quincy Wright (1971[1942], 140f) observes “Foreign war [was] a remedy for internal tension, revolution or insurrection has been an acceptable principal of government” and suggested that the wars associated with the Crusades (1095-1291), World War I (1914-1918), and the beginnings of the Second Sino-Japanese War in 1931 were all examples of “remedies” for domestic unrest. Additionally, Wright (1971[1942], 253-254) concludes,

War has also had a role in maintaining the established status of nations and the established international order...This function of war has been more important in some states than in others, but there is none in which war or war preparations have not to some degree at some time been used as an instrument of national stability and order.

Sociologist Lewis Coser (1956) attempts to systemize and refine Simmel’s original concept of group cohesion and external threats. Coser (1956, 93) notes that external tensions could unify individuals into a group, but also could result in the fragmentation and disintegration, if it lacked previous cohesion or if not all of the members of the group are equally threatened (Stein 1976, 144). Nevertheless, these behavioral explanations and the linkage between internal and external conflict appealed to political scientists as an alternative to the prevailing neorealist and systems-level theories of international relations (Richards et al. 1993, 505).

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21 Sumner (1906, 12) lent support to this concept and used the terms “we-group, or in-group” to describe those who would band together when threatened by “other-groups, outgroups.” Other sociological research at the time concurred with this view such as Émile Durkheim’s 1897 study on the phenomenon of suicide. Durkheim (1951 [1897], 208) notes that national crises tend to “rouse collective sentiments, stimulate partisan spirit and patriotism, political and national faith alike, and concentrating activity toward a single end, at least temporarily cause a stronger integration of society.” Arthur Stein (1976, 146) also discussed the importance of this research on the decline of suicides during national crises and notes that Durkheim “infers that that the decrease is due to the increased group integration during crises.”

22 Wright (1971[1942], 266) also proposed that for authoritarian governments, “war has continued to be useful for both internal and for external policy.”
Empirical tests to determine the extent of these relationships between internal conditions and external use of force were characterized by mixed results and disputes over methodology. These included Rummel (1963, 100) and his Dimensions of Nations Project which focuses on how to quantify domestic conflict. Rummel (1963, 100) concludes, “Foreign conflict behavior is not a necessary and sufficient condition for domestic peace.” Tanter (1966, 60) replicates Rummel’s 1963 research and finds that there might be “no ‘simple’ relationship between domestic and foreign conflict behavior, but there may be a causal relationship which is being obscured by other phenomena.” Other studies confirm Rummel’s previous conclusions that there was either a limited or a non-existent relationship between domestic conflict and foreign (external) uses of force (Tanter 1969, 556; Burrowes and Spector 1971, 316). In response to these mixed results, Rosenau (1969, 2) argues that this field of “linkage politics” was still in development and that “it has long been recognized that national political systems…respond to a larger environment” and had never been studied using “systematic, sustained, and comparative inquiry.”

Wilkenfeld, Lussier, and Tahtinen (1973, 297) conduct research on external military use of force involving Middle Eastern states and find that domestic conditions did influence foreign conflict, but with significant variations based on type of regime. In a more comprehensive study, Wilkenfeld (1972, 281) explores the relevance of regime type and diversion by dividing states into three categories for analysis: personalist (dictatorships with less bureaucracy including South Korea prior to 1987), centrist (authoritarian nations with more bureaucracy, including states such as North Korea), and polyarchic (democratic states such as the US) for analysis. Wilkenfeld (1972, 298) also notes that diversionary behavior might be constrained by fears that the use of force might not achieve leaders’ goals and observes,

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23 The most relevant studies involved the “use of force” rather than the expansion of the concept to hostile foreign policy. For this dissertation, the external “use of force” by states is considered a subset of foreign policy activities.

24 North and South Korea were included in Rummel’s study (1963, 105)

25 These included Israel, Egypt, Jordan, Syria, Iraq, and Lebanon (Wilkenfeld et al. 1972, 150).

26 Banks and Textor (1963) base these groupings on a systematic analysis and categorization of states. Wilkenfeld (1972, 298) also found that polyarchic and centrist states demonstrated “an overriding tendency to pursue a policy of foreign conflict behavior that matched the state’s previous foreign conflict level, i.e. to perpetuate the existing level of foreign conflict.” Personalist states acted independently of prior conflict levels, but did demonstrate “influences of domestic conflict levels on the level of foreign conflict” Wilkenfeld (1972, 298).
Thus, for the personalist ruler, relatively free to make foreign policy decisions and alter them, the prospect of diverting attention from his deteriorating domestic situation by engaging in a mild form of foreign conflict is a tempting policy alternative and one not difficult to pursue. However, the discovery of significant relationships between prior and subsequent levels of belligerency indicates that this particular course of action may be more difficult to terminate than to initiate. Having focused public attention upon a hostile opponent, the personal ruler may be constrained by the very public attitudes he had sought to generate.

A number of scholars offered harsh critiques of the foundations and methodology used for early diversionary propositions. These criticisms generally focus on misinterpretation and omissions related to Coser’s work, which is usually identified as the historic basis for modern diversionary theories. Coser (1956, 93-94) qualifies his findings by emphasizing that a given group will perceive the external actor as less threatening if the group has potential for cohesion and is also convinced that the collective action will reduce the external threat. Levy (1989, 161) comments that Coser’s qualifying conditions were often omitted in social science research and by the 1980s many scholars adhered to Dahrendorf’s (1973, 297) view that “It appears to be a general law that human groups react to external pressure by increased internal coherence.”

Mack (1965, 389) adds that Coser’s findings are “cited by everyone and heeded by no one.” Stein (1976, 145) echoes these sentiments and faulted social science research for the “casual acceptance of the [internal-external conflict] hypothesis without any of the caveats” and the “paucity of empirical conflict literature in sociology.” Levy (1989, 262) agrees and notes logic concerns with the social science efforts to generalize Coser’s research on conflict from the individual to national level of analysis. In another critique of the discussion over the theoretical relationship between internal and external conflict, Mack (1975, 613) notes

The total lack of theoretical input has been one of the main criticisms leveled against the early work of the DON [Dimensions of Nations] Project, with which the Rummel and Tanter studies are associated. The same criticism also applies to the other studies. In general, no strong relationships have been discovered between external and internal conflict behavior. Given the methods used, this proves absolutely nothing.
While Mack’s assessments are both boorish and entertaining, he does identify many of the enduring criticisms of both diversionary theory to include problems with theoretical foundations, data collection, and quantitative testing methods (Mack 1975). Other authors criticize these early works for their vague definitions of conflict (Stein 1976, 145), methodological problems with timeframes (Bronson 1997, 11; Levy 1989, 265-266) and the lack of “theoretical foundations” and the influence of reciprocity (Levy 1989, 266).

Levy (1989, 263) concludes that this method of diversion research has “failed to produce any cumulative results. We have a set of findings that are scattered and inconsistent, and these inconsistencies have yet to be resolved or explained.” Levy proposes to extend the length of studies to account for long-term changes potentially linked to diversion and an emphasis on methods, such as the inclusion of “structured, focused comparison” of a limited number of historical cases (Levy 1989, 284). Despite the problems mentioned above, this “first wave” of research provides the foundations for subsequent theoretical and empirical work on domestic conditions and external use of force at the state and international levels.

2.a.2. More Recent Developments in Diversionary Literature

Over the past 20 years, diversionary theory has expanded into an important research program, but one that lacks a common approach to distinguishing diversionary cases from other instances of use of force activity. As Fravel (2010, 307) notes,

> The diversionary hypothesis offers a seductive explanation for why states initiate crises or go to war. The notion that a desperate leader might provoke conflict with another state to deflect attention from problems at home is intuitively compelling and seems to reflect commonsense.

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27 Mack (1975, 616-618) also comments that the studies give the impression that “they were performed by intelligent Martians whose only knowledge of the world was based on the data banks culled from such sources as the New York Times Index, and whose theoretical ideas were wholly constrained by a knowledge of little more than electronic techniques for data manipulation and correlation testing” and “the most useful contribution to political science which can be claimed for the papers criticized in this article is that they have demonstrated beyond all reasonable doubt that a research effort which many thought a waste of time at the outset is, in fact, a waste of time.”

28 Levy was referring to the case study methods in Alexander George’s (1982) “Case Studies and Theory Development” presentation.

29 James (1987, 25) refers to these initial empirical and theoretical efforts as the “first wave” of research on diversionary relationships. In this research, I use both a structured, focused comparison of cases and another case study method (process tracing) to examine the qualitative data. More details on my application of these methods are included in Chapter 4.
Recent scholarship has included a shift towards emphasizing the components of diversionary relationships, such as regime type, levels of conflict, economic factors, and constraints on domestic leader activities. Rather than comprehensive surveys of the correlations between internal and external uses of force, much of the current scholarship focuses on the relationships between democratic states and diversion, and other types of diversionary activities, rather than simply on conflict or war. Additionally, much of the research during the late 1980s and 1990s focused solely on the United States’ diversionary actions.

**Diversionary Activities by Western Democracies.** Ostrom and Job (1986), James and Oneal (1991), Morgan and Bickers (1992) and DeRouen (1995) examine United States presidential decisions to use force based on domestic conditions. Morgan and Bickers (1992, 49-50) expand the view of diversionary theory including “cooperative foreign policy [and] domestic political actions” and other events short of war, concluding that democratic leaders may commit to diversionary activity when faced with domestic strife. Alastair Smith (1996, 133) analyzes reelection incentives for US presidents and find that when leaders are unsure of their ability to retain office or if their foreign policy decisions could increase popular support, they will often engage in “violent, adventurous foreign policy.” James and Rioux (1998, 800-801) note that a small increase in popularity occurs “when U.S. presidents respond with vigor in an international conflict” but if actual military force is used, this “rallying effect” is cancelled or even becomes negative depending on the level of force applied.

Yet many scholars still questioned the scope, methodology, and analytical procedures associated with diversionary theory. Historian Geoffrey Blainey (1988, 291) discounts the “scapegoat theory” and disagreed with the proposal that leaders initiate wars to “promote peace at home” citing other factors for the onset of war. Additionally, Meernick and Waterman (1996, 587) note that when a US president chooses to engage in the external use of force, the decision is most likely based on “…national security concerns, U.S. responsibilities as a hegemon, and the peculiarities of the crisis he is facing when making such momentous

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30 This supports the expansion of the definition of “use of force” to hostile foreign policy when studying potential diversion events.
31 Blainey (1988, 293) identifies seven factors that have influenced leadership decisions for war throughout history: “(1) military strength and the ability to apply that strength efficiently in the likely theater of war; (2) predictions of how outside nations will behave if war should occur; (3) perceptions of whether there is internal unity or discord in their land and in the land of the enemy; (4) knowledge or forgetfulness of the realities and sufferings of war; (5) nationalism and ideology; (6) the state of the economy and also its ability to sustain the kind of war envisaged; [and] (7) the personality and experience of those who shared in the decision.”
“decisions” rather than domestic concerns. Gelpi (1997, 256) criticizes the field’s narrow focus on conflict and omission of other less violent options for leaders to respond to domestic challenges. He notes that leaders have three options when mass unrest occurs: “(1) grant the demands of the dissatisfied groups, (2) repress the dissatisfied groups by force, and (3) divert the public’s attention by using force externally” (Gelpi 1997, 256).

Regime type is also considered a determining factor. Democratic leaders will tend to use diversionary force while authoritarians will “repress the unrest directly, and these acts of repression will make them less likely to use force internationally” (Gelpi 1997, 256). Gowa (1998, 307,320) contends that political activity “…does stop at the water’s edge…[emphasis in original]” in an analysis of US conflict behavior and that “Neither political-military cycles nor partisan politics have had any observable effect on U.S. recourse to use of force abroad between 1870 and 1992.” Additionally, conceptual issues also have been criticized including the nature of diversion and its status as a theory (Williams 2000 and Bronson 1997).

Cross-Sectional Studies of Diversionary Activities. While much of the diversion literature in the 1980s and 1990s focused on the United States, some of the most important (and most recent) research has involved cross-sectional studies with extended timeframes and other methods, which address many of the criticisms raised by James (1987) and Levy (1989). As Hayashi (2004, 14) observes, current diversionary research has

…shifted from a simple question of whether domestic unrest provides leaders with an incentive to engage in diversionary conflict abroad to that of whether this “willingness” to divert attention externally is constrained by “opportunity” to do so. Increasingly, researchers have attempted to develop hypotheses explaining how the environment is conducive to diversionary behavior, and construct research designs to induce more rigorous testing.

Enterline and Gleditsch (2000) and DeRouen (2000) review the relationship between use of force abroad and use of repression domestically and find some support for the link between domestic conditions and international conflict. Additionally, Chiozza and Goemans (2003, 461) analyze the reciprocal nature of conflict (on both the sender and receiver) and conclude that along with incentives to divert, leaders also fear losing office because of the same activity. This “endogeneity mechanism” is an important part of the diversion hypothesis and must be considered when examining cases attributed to
domestic conflict (Chiozza and Goemans 2003, 462). Mitchell and Prins (2004, 958) explore other conditions that affect the likelihood of diversion and find that the presence of economic difficulties (inflation) and non-democracies’ lack of transparency made diversionary activity more likely. Chapman and Reiter (2004, 906) examine the “rally round the flag” effect in the US in relation to instances of militarized disputes and find that UN Security Council support boosted presidential approval ratings by “as much as 8 or 9 points.” Additionally, Mitchell and Thyne (2010, 463) argue that “issue claims” (such as border disputes) provide opportunities for diversionary activity and militarized disputes and Tir (2010, 422) also concurs that territorial disputes provide opportunities for diversion. These research efforts are typical of more recent studies, which have moved past the basic inquiries towards more sophisticated questions. As Bronson (1997, 2) observes, the real question in examining diversionary theory is “when…and under what conditions does it work rather than simply does it work? [emphasis in original].”

Meernik (2001, 902) criticizes diversionary theorists for their “fixation” on domestic factors and the use of force and failing to appreciate the importance of international influences. Clark (2003, 1013) notes that the same domestic conditions, which might cause democratic leaders to pursue external military actions, also provide their targets “incentives to maintain low profiles.” Mitchell and Prins (2004, 938) argue that transparency was the explanation for the reduction in opportunities to use force by democratic states. Thus potential targets of democratic nations are often well aware of the possibility of pending conflict and adjust their behavior accordingly. Alternatively, Mitchell and Prins (2004, 938) contend that non-democratic states face fewer constraints based on transparency and that “Paradoxically, then, the initiation of diversionary force by nondemocratic regimes fits the pattern that we have expected traditionally from democratic states.”

Kisangani and Pickering (2007) provide a more nuanced examination the diversionary hypothesis with their research on the use of force from both a “benevolent” and “belligerent” perspective.32 By controlling for regime types (democracies, mixed regimes, and autocracies), Kisangani and Pickering (2007) identify differences in the responses of these types of governments to diversionary conditions. Kisangani and Pickering (2007, 296) find that

32 Kisangani and Pickering (2007, 277) distinguished between the use of diversionary force for “benevolent” means such as humanitarian operations (low politics issues or “socioeconomic interventions”) and for more aggressive purposes (high politics issues or “políti-co-strategic interventions”).
democratic and mixed regimes prefer “low-risk, low-profile” socio-economic interventions while autocracies, when faced with domestic challenges, do not use any form of “external armed force” to remedy their situation. They conclude that both democratic and mixed governments engage in diversionary activity, although not the “high profile, confrontational military force we typically envision” (Kisangani and Pickering 2007, 297).

2.b. Diversion and the North Korean Case

No diversionary theory research exists that is singularly focused on North Korea’s hostile foreign policy activities. However, a number of related case studies on diversionary activity provide examples of the advantages of single or limited country studies. Levy (1998, 152-153) notes that empirical research which dismisses the relationship between domestic unrest and external conflict “contrasts sharply with evidence of external scapegoating from historical and journalistic accounts and from a growing body of case-study evidence.”

2.b.1. Case Studies on Diversion

A number of authors have used case studies to examine specific historical events and their relationship to diversionary theory. These include Fravel (2010, 338) and his examination of Turkey’s 1974 invasion of Cyprus and Argentina’s 1982 seizure of the Falkland Islands (both incidents are often cited as historic examples of diversionary activity). However, Fravel (2010, 338) concludes that the evidence supports neither case as being spurred by diversionary behavior. Others examine the Falklands War with mixed results (Kisangani and Pickering 2009; Oakes 2006). Davies (2008, 209) reviewed Iran’s behavior toward the US from 1990-2004 and concludes that although Tehran might have had incentives to divert, the Iranians tend to take measures to “avoid confrontation with the United States.” Yet, in a review of Middle East politics, Tures (2004, 617, 624) notes that both Syria and Lebanon have a history of diversionary activity. In examining more recent uses of force, Filippov (2009, 1844) argues that Russia’s conflict with Georgia in 2008 was influenced by both security concerns and “domestic diversionary goals.” These types of case studies provide important details on individual instances that are often omitted during empirical analysis studies of the use of diplomatic or armed force.

2.b.2. Regime Type and Diversion

Other authors focus on regime type when analyzing diversionary behavior and the characteristics of non-democratic governments that engage in these activities. Miller (1995)
concludes that autocratic regimes with lower resource levels had a higher propensity to divert.\textsuperscript{33} Peceny and Beer (2003, 340) comment that the rules for autocracies are different: autocrats are not concerned with reelection or public confidence data and they can crack down on internal unrest and disband legislatures as needed. Additionally, Debs and Goemans (2010, 430) contend that nondemocratic regimes are less likely to divert due to difference in “post-exit” fates: democratic leaders risk the loss of reelection while autocrats who are deposed risk “more punitive” results (jail or loss of life). Bak and Palmer (2011, 23) also studied the relationship between domestic conditions and diversion and identify a number of constraining factors (including domestic and elite unrest) that limit authoritarian leaders’ decisions to engage in international diversionary activities.

Mitchell and Prins (2004, 937) observe that diversionary activities are related to the “strategic and historical relationships among states” and that non-democratic states are more prone to diversion in the traditional sense. In fact, they note that among enduring rivalries,\textsuperscript{34} states can better justify diversionary uses of force when domestic unrest is at heightened levels (Mitchell and Prins 2004, 938). They also explore other conditions that affect the likelihood of diversion and determined that the presence of economic difficulties (inflation) and non-democracies’ lack of transparency made diversionary activity more likely (Mitchell and Prins 2004, 958). Reilly (2004, 7) notes that states like North Korea, the former Yugoslavia and the Russian Federation have engaged in diversionary activity and “exemplify how weak states externalize their own domestic crises, employ violence to reduce threats, and respond aggressively to international pressures.”

Pickering and Kisangani (2005, 39) conclude that mature autocracies are less likely to divert compared to consolidating ones and that seasoned dictators tend not to engage in external uses of force because of either mass or elite unrest. In other research, Kisangani and Pickering (2007, 295) contend that autocracies do not generally appear to engage in external actions based on internal unrest, but that “socio-economic interventions” are possible during times of economic distress. In more recent work, Pickering and Kisangani (2010, 490) also argue that personalist

\textsuperscript{33} Miller (1995, 779) stated, “...the lower the ability of society to remove a leader from power, the more likely the leader will be to abuse that power for personal gain; and the fewer the resources available to leaders to influence their domestic environment, the more likely they are to use foreign policy to pursue their political ambition.”

\textsuperscript{34} The conflict between North and South Korea fits this concept of “enduring rivalries.”
regimes are prone to international uses of force as the level of elite unrest increases. They also concluded that all types of regimes are prone to external military diversion under conditions of elite unrest, but that the reciprocal domestic effects from these actions are often negative and include mass unrest and economic distress (Pickering and Kisangani 2010, 490). Bell (2009, 176) also studied the conditions that affect a leader’s propensity to divert domestic attention and concluded that transparency remains the key to limiting diversionary behavior. As with other research on diversionary theory, the analysis of regime type and other factors provides a more refined approach, but continues to demonstrate the complexities of examining the impetus for state-level foreign policy actions.

2.b.3. East Asia Studies on Diversionary Behavior

While most of the scholarship on diversionary theory has focused on cross-sectional studies or solely on western democracies, few studies specifically examine East Asia. Yet, as Li (2008, 224) notes, “the study of diversionary theory should not be limited to Western major powers…The case of China-Taiwan has shown that leaders of non-Western [states] can indeed initiate diversionary behaviors.” Other authors examine the application of diversionary concepts to historical cases from Japan (Nicholls 2010; Hayashi 2004) and China (Johnston 1998). Shirk (2008, 62,144) comments that “Any Chinese government that looks weak in the face of foreign pressure is likely to be overthrown” and that the PRC often uses its relationship with Japan to divert attention from “difficult domestic problems.” However, Downs and Saunders (1998-1999, 121) note that China remains wary of the pitfalls of the rallying effect and that “Excessive nationalism can stir up demands for assertive international policies that Chinese leaders cannot presently satisfy.” Yet Woods and Dickson (2012, 30) observe that the majority of Chinese are inclined towards nationalistic attitudes and tend to view actions by foreign governments as “hostile to Chinese interests.” Finally, studies of Chinese nationalism find that China’s intellectuals continue to focus on “patriotism and economic growth” rather than more progressive issues such as political reform and individual rights (Nam 2006, 163).

Bennett (2010, vii) notes that North Korea does engage in diversionary activity and contends that in the future, choices to engage in diversion could be prompted by mass or elite unrest. He also comments that North Korea’s attack against South Korean diplomats in Rangoon

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35 Pickering and Kisangani (2010, 478) emphasized the importance of distinguishing between types of autocracies and rely on Geddes’ (1999) typology that identifies regimes as single party, military, or personalist (for example, North Korea is considered a “personalist” regime).

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in 1983 and Pyongyang’s 2006 nuclear weapons test were “diversion” and “coercion” activities (Bennett 2010, 8). Lai and Slater (2006, 13) examine the decisions to engage in external uses of force by authoritarian regimes and note that the more legitimate a regime is, the less likely it will be to initiate conflict. They also conclude that the stability and legitimacy of a regime was just as important as regime type and that in the case of North Korea, the Kim regime’s characteristics would actually make it less likely to initiate conflict than a more “collective” leadership such as Iran (Lai and Slater 2006, 135). Kim and Choy (2012, 61) argue that during three of North Korea’s nuclear-missile crises (in 1993, 1998, and 2002) there was no association between domestic conditions and external foreign policy and there was little evidence that the Kim regime attempted to divert public attention with external conflict during these periods.37

Jung’s (2012) study on the relationship between domestic instability and external conflict is an important addition to the literature.38 Jung’s examination of conflict dyads between 1920 and 2001 complements previous studies of international conflict behavior and demonstrates the importance of using both quantitative and qualitative analysis methodologies. Jung’s (2012, 139-140) analysis also examines some of the same historical events included in my case studies, including the ROK decision to send troops to Vietnam and the North Korean nuclear crisis in 1994. Yet Jung’s (2012) study also demonstrates the difficulty of conducting quantitative research on North Korea. His database for measuring domestic unrest (Arthur Banks’ Cross National Time Series) only includes sparse data on North Korea and is primarily limited to New York Times media reports (Jung 2012).39 However, Jung’s (2012) use of both quantitative methods and examination of two case studies of domestic unrest on the Korean peninsula provides an important example of the advantages of a mixed-methods approach.

Lastly, Michishita’s (2009) study of North Korean “military-diplomatic campaigns” stands apart from other scholarship with its analysis of the DPRK’s foreign policy actions and

36 While these observations help support the propositions for my research, Bennett (2010) provides no evidence to support his contentions.
37 This study is a more recent effort to use quantitative analysis to examine North Korean behavior and the authors used “word count technology” to scan North Korean media information during these periods for words that indicated domestic instability (Kim and Choy 2012).
38 This dissertation was made publicly available in 2013 and its overarching impact on the study of diversion and external conflict is to be determined.
39 Jung (2012, 175) notes the limitations of the CNTS database and calls for a more systematic way for political scientists to measure the initiation of interstate conflict.

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examination of the influence of both internal and external conditions. While not focused specifically on diversionary theory, Michishita’s research provides an important foundation for the study of North Korean conflict. Michishita (2009) examines eight cases of key conflict events on the Korean peninsula from 1966-2008 which included a wide range of activities from armed conflict to nuclear testing. He uses a structured qualitative method to compare these cases and concludes that North Korea’s diplomatic-military activities are rational, based on political objectives, and focused on deterrence (Michishita 2009, 1-3). Michishita (2009, 3) also examines the influence of external and internal conditions on North Korean activity and notes that “none of North Korea’s major military-diplomatic actions have been primarily caused by domestic factors…the contention that North Korea tends to undertake military actions when it faces a hostile international environment is not true.” While these statements imply that internal and external factors are not primarily influential in North Korea’s decisions to use force, Michishita does admit that on several occasions, diversionary considerations were influential in Kim regime decisions to use force for the establishment and consolidation of power.

2.c. The Conceptual Propositions

As Foster and Keller (2010, 219) note, “The diversionary hypothesis is perhaps as old as the study of international conflict itself, and its basic tenets hold prominence in the work of such luminaries as Niccolò Machiavelli and Jean Bodin.” Yet many of the criticisms identified by Levy in his 1989 review are still valid in relation to the study of diversion and East Asia: limited data, untested methods, and mixed conclusions all make these research efforts difficult. Diversionary theory remains logically sound and, as Jasinski (2010, 21) observes, “it is difficult to think of an international relations theory that has a more widespread support base.” Yet more recent criticisms, such as those raised by the strategic conflict avoidance (SCA) argument.

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40 Young-June Park (Korea National Defense University) and Victor Cha (Korea Chair at CSIS) recommended Michishita’s study for this project.
41 Michishita’s case studies included: (1) conflict along the DMZ from 1966-1968; (2) the seizure of the USS Pueblo; (3) West (Yellow) Sea naval incidents from 1973-1976; (4) the 1976 Panmunjom Axe Murder incident; (5) Nuclear threats and diplomacy from 1993-1994; (6) Missile firings; (7) DMZ incidents and other Armistice violations (1993-2002); and (8) nuclear testing (2002-2008).
42 Michishita (2009, 4) uses the term "controlled comparative analysis" to describe his case study method, which uses a common outline for his case studies. For each case, he provides a historical background and description, motivating factors (that caused the conflict), characteristics, analysis, and outcomes (Michishita 2009, 4).
43 Strategic Conflict Avoidance (SCA) contends that states often avoid conflict with other states by changing their behavior (often to a more conciliatory stance) towards external threats (Fordham 2005). This concept
demonstrate the need for a much more sophisticated approach to the study of diversionary concepts.\(^ {44} \)

Supporters of diversionary theory provide the basis for the first proposition, which is focused on the traditional view that internal conditions and hostile foreign policy activities are related. As noted above, a number of authors, beginning with Simmel (1955[1898]) contend that diversion occurs\(^ {45} \) while others question the “one-way” link between domestic strife and leadership choices to engage in “violent adventures.”\(^ {46} \) In the North Korean case, Simmel’s assertion would argue that domestic factors are related to the Kim regime’s proclivity to engage in hostile foreign policies. An alternate explanation would contend that the international community is the primary influence on North Korea’s foreign policy choices. These overarching ideas can be expressed as two propositions.\(^ {47} \) The first proposition (P1) identifies relationships as suggested by diversionary theory: *domestic* conditions in North Korea are related to the incidence of conflict on the Korean peninsula. The second proposition (P2) states that *external* conditions are more influential in the levels of conflict between North Korea and its neighbors.\(^ {48} \) The two propositions are expressed as follows:

\(^{44}\) As previously noted, a number of authors criticize the underlying assumptions of diversionary theory, including Levy (1989) and Bronson (1997), calling for a more nuanced approach to the study of this concept.\(^ {45}\) Supporters include Durkheim (1951[1897]), Wright (1971[1942]), Coser (1956), Rosenau (1969), Wilkenfeld (1972), Ostrom and Job (1986), Morgan and Bickers (1992), DeRouen (1995), Miller (1995), Smith (1996), Mitchell and Prins (2004), Chapman and Reiter (2004), Pickering and Kisangani (2005), Mitchell and Thyne (2010) and Tir (2010).\(^ {46}\) Those who contend that internal and external conflict exist independently include Sorokin (1957), Cattell (1949), Rummel (1963), Mack (1965), Tanter (1969), Burrowes and Spector (1971), Mack (1975), Stein (1976), James (1987), Blainey (1988), Levy (1989), Meernick and Waterman (1996), Gelpi (1997), and Gowa (1998).\(^ {47}\) Kellstedt and Whitten (2009, 4) use the term “causal theory” to describe the concepts preceding and underlying the development these types of concepts. This research uses the term “prophecy” to identify the overarching relationships between North Korea’s conflict activities and both internal and external influencers.\(^ {48}\) Waltz (1954; 1979) and Wendt (1992) provide the theoretical basis for P2 with their concepts of “international system” causes for state-level conflict.
**P1:** The deterioration of domestic conditions in North Korea is associated with an increase in North Korean-initiated hostile foreign policy.

**P2:** Increased international tensions are associated with increases in North Korean-initiated hostile foreign policy.

This study examines North Korea’s use of hostile foreign policy using both quantitative analysis of event data involving threats or use of military force (in Chapter 3) and a qualitative examination of three case studies in Chapter 4.49 I also test whether or not diversionary theory explains the characteristics, relationships, and possible motivations for DPRK-initiated interstate diplomatic or military actions. Although the singular focus on North Korea might raise methodological concerns, this technique finds support from King, Keohane, and Verba (1994, 221) who contend that the examination of hypotheses over time within a single subject is a valid technique. North Korea’s unique characteristics warrant this sole focus during this study. This limited, single-country study allows a more thorough analysis to uncover key details that generalized studies may overlook.

Finally, one important caveat must be added for research associated with analyzing North Korea: most research on the DPRK must rely on “proxy” sources. Field or archival research inside North Korea is virtually impossible, and if scholars do happen to travel to the DPRK, they face severe restrictions on their activities.50 Thus, researchers are left to observe North Korea through its historic relations and interaction with other nations, literature generated by the DPRK government itself, defector testimony, and other derivative and proxy sources. Additionally, other external sources on North Korea, such as the United Nations, World Bank and International Monetary Fund, and trade data from other nations are readily available. The use of data from proxy sources outside North Korea remains a “necessary evil” for almost all scholars examining the DPRK and is an unavoidable constraint on this research.

Additionally, while there is proxy data available on North Korean activities, the concept of “intent” of the regime to divert the public’s attention is difficult to quantify. Without examining the personal notes of North Korean leaders, conducting in-country interviews, or

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49 For more details on the advantages of combining both quantitative and qualitative research methods, see Mahoney and Goertz (2006) and Levy (1997).
50 Members of the US military (such as myself) are generally prohibited from traveling to North Korea. Exceptions include US-sponsored missions to recover the remains of military members who died during the Korean War. These missions are focused solely on remains recovery (Starr 2011).
other first-hand evidence, determining regime intent is difficult. Thus the application of diversionary theory for this dissertation rests on methods used by previous scholars such as Ostrom and Job (1986), Morgan and Bickers (1992) and Pickering and Kisangani (2005), and related techniques to identify the linkage between international domestic conditions and the propensity to engage in external “adventures” by the Kim regime. Because of these complicating factors, scholars rarely analyze DPRK conflict using social science methods. The next section begins this effort to examine the Kim regime’s conflict activities by first examining the history of North Korean conflict from the DPRK’s establishment in 1948 to the beginning of the study period in 1960.

2.d. History of North Korea’s Hostile Foreign Policy (1948-1960)

The following section provides background for the case studies through an overview of North Korea’s hostile foreign policy activities from 1948 (and the founding of North Korea) through 1960, which saw Kim Il-sung firmly in control of the DPRK. The modern history of North Korea includes the peninsula’s opening to the west in the late 1800s, Japanese colonial rule colonization (1910-1945), the formation of two Korean states (1948), the Korean War (1950-1953) and war recovery and political consolidation by DPRK leader Kim Il-sung (through 1960). Ample literature is available on the “Hermit Kingdom” and from its early relationship with the West in the 1800s through the formation of two Korean states in 1948. While an understanding of the modern background of the Koreas is essential for any analysis of the peninsula, the following summary focuses on the formation of North Korea as a separate and distinct state and the hostile acts (both diplomatic and military) by North Korean leaders after the formation of the DPRK through 1960. This section provides the background for both the quantitative analysis and three case studies of North Korea’s conflict activities presented later in the text.

51 Relevant literature on the modern history of the Koreas includes Eckert (1990), Cumings (2005), Robinson (2007) and Salvada (1994) and Worden (2008). These scholars provide an important perspective on Korea’s initial relations with other nations and opening to the West in the 1800s, the domination and occupation by the Japanese and the arrival of the Cold War and influence of the Soviet Union and United States. Additionally, there are number of important works that discuss the rise of the Korean communist party (Suh 1967; Nam 1974; Kim I. 1975; Van Ree 1989), Kim Il-sung’s background and ascension (Suh 1988, Lankov 2002; Szalontai 2005), and the early formation of the North Korean state (Cumings 1981; Cumings 1990; Armstrong 2003; Millett 2005).
2.d.1. The Early Years

North Korea declared itself an independent socialist state on September 9, 1948 and the “only legitimate government on the peninsula” (Eckert 1990, 343). Prior to the 1940s, Korea had existed as a generally unified state for over a thousand years since Korea’s Silla era (dating back to the year 668)\(^{52}\) and had remained intact during its opening to the West in the 1800s and through over 40 years of Japanese occupation in the 1900s. However, post-World War II occupation by the US and USSR\(^{53}\) resulted in competition between communist and Western democratic concepts on the peninsula: both the Americans and Soviets guided the two Koreas based differing ideological views of state governance.

After the war, Soviet objectives in the region focused on ensuring that the USSR had influence “at least equal to the United States” (CIA 1946, 1). Additionally, from the US viewpoint, Soviet actions in Korea beginning in 1945 demonstrated the intent to secure “all of Korea as a satellite” (CIA 1947a, 1).\(^{54}\) From Stalin’s perspective, his objectives in Korea included a focus on regional security, as well as global influence. The Soviets were determined that any future Korea would not be “turned into a staging ground for future aggression against the USSR” and that Russia must participate in any trusteeship of the peninsula (Weathersby 1993, quoting Russian archival sources, 11-12).

By the end of 1945, both the United States and Soviet Union had designated leaders for each of the Korean zones. Syngman Rhee, a 72-year old US-educated Korean, was the American choice to govern, while the Soviets chose “General” Kim Il-sung, a 33-year old anti-Japanese war hero to eventually (with Stalin’s assistance) assume control of the DPRK.\(^{55}\) Within a few months of their arrival, both Rhee and Kim were “the dominant political figures in the two zones” (Cumings 2005, 195). Between 1946 and 1948, Kim and his former soldiers established

\(^{52}\) Salvada (1994, 9-11) provides a concise review of this period in Korea’s history.

\(^{53}\) At the end of World War II, Japanese occupation troops left Korea and the US and Soviet Union jointly controlled the peninsula. The Russians took control of the northern half and the Americans occupied the south.

\(^{54}\) In 1947, the CIA analysis commented that the Soviets had, since Japan’s surrender, conducted subversion operations against the South, consolidated power and assumed control of North Korea (CIA 1947b, 1). The CIA identified a number of actions by the Soviets including the construction of a “military-political machine under Soviet auspices…strengthening of the South Korean Communist Party…[by] infiltrating its members into key positions in the administrative and policy organization of South Korea (CIA 1947b, 2).

\(^{55}\) Although Rhee was officially elected by the South’s National Assembly in July 1948 (Finley 1984, 50), he was supported by the US occupation administration. In October 1945, Rhee (along with another conservative, Kim Ku) were brought back to Seoul by the US and introduced by General Hodge (the US forces commander) to the southern Koreans. Finley (1984, 49) also notes that the Soviets installed Kim as the communist party leader in October 1945. The early history of Kim and his guerilla activities against the Japanese are available in Martin (2006, 29-46) and Suh (1988, 30-54).
the Korean People’s Army and control over the civilian administration body, the People’s Provisional Committee (Suh 1988, 68-69). The early years of Kim’s rule in North Korea were turbulent and filled with “factious rivalry inside the North Korean leadership” (Lankov 2002b, 60) and it was not until the late 1950s that he established firm control over the entire government (Vreland and Shinn 1976, 35). To those in the North, Kim represented the promise of progress and recovery after decades of Japanese rule, which bled the peninsula of both resources and its heritage through attempts to assimilate the Koreans into Japanese culture.

Decades of rule by an external power (Japan) had left the Koreans with little experience with self-governance, resulting in the US and Soviet Union advocating that Korea be governed under “trustee status” until it could rule itself (FRUS 1943, 869). Thus, the government and foreign policy of Korea (and subsequently North Korea in 1948) was not initially determined by the Korean people, but under the aegis of foreign occupiers (now the Soviets and Americans). North Korea’s government and subsequent foreign policy actions were rooted in the tutelage of the Soviets and their pressure to form a socialist state that would ally itself with the communist world. This appealed to the ruling faction in North Korea (led by Kim Il-sung) who hoped this new government would help the DPRK embark on a path of modernity modeled on the Soviet Union, in the postcolonial context of a newly independent country: a specifically noncapitalist, anticolonial modernity that would propel Korea from the status of a backward subjugated nation into the forefront of social, cultural and technical progress (Armstrong 2003, 2-3).

With Soviet help, North Korea hoped to become a model socialist state, an active part of a communist alliance with the USSR and both a political and economic power. From the Soviet perspective, Korea was important to the USSR’s regional security objectives, although Stalin had concerns that were at a much higher priority, such as the recovery from the devastating effects of

56 Kim was aided by a core group of supporters who had fought with him as partisans against the Japanese in Manchuria (Suh 1988, 68-69)

57 Prior to and during the annexation period (1905-1945) Japan viewed Korea as a resource to fuel its growing need for raw materials and as a colony that could serve as a reservoir of cheap labor and industrial goods. Although the Meiji government is credited with improving Korea’s infrastructure through the building of ports, roads and schools, this came at a high price as Japanese officials also established “a ‘legalized’ system of racial discrimination against Koreans, making them second-class citizens in their own country” (Cumings 2005, 148). For example, during the 1930s, Japan enacted a number of measures in Korea including mandatory worshiping at Shinto shrines, use of Japanese language in all public places, pressure to adopt Japanese family names and cessation of Korean language newspapers (Choe 1997, 315).
World War II. Additionally, while the Soviets were influential in the formation of a socialist government in the North, Stalin did not directly support communist activities and subversion in the South until early 1950 (Weathersby 1993, 24). At the same time, between 1946 and 1950, the Soviets provided an estimated $546 million in total aid to North Korea (Kim 1970, 241). In fact, the Soviets provided the “necessary protection, a womb within which a socialist state could incubate until it was strong enough to stand alone” (Cumings 1990, 436-437).

Ideologically, Kim Il-sung and his followers were also linked to Mao Zedong’s Chinese Communist Party and many within Kim’s inner circle had been active in China’s revolution (Armstrong 2003, 2). While China would soon become more influential in the Korean situation, Mao’s priorities (in the late 1940s) were focused on defeating the Chinese Nationalists and establishing the People’s Republic of China. Nevertheless, support from communist allies strengthened the DPRK in its efforts to become a viable state, and this supported the Kim regime’s pursuit of reunification through the destabilization of the South. The overarching political situation on the peninsula was tenuous and hostile foreign policy actions became the vehicle for eventual reunification.

Both North and South Korea considered the division of the peninsula by external powers an unnatural state of affairs and reunification was always a foreign policy priority for both states. For example, Kim Il-sung (2001, 127) expressed his ongoing support for reunification in 1948 by stating, “Our Party’s stand on the establishment of a unified democratic government remains the same as ever. Our Party holds that a supreme legislative body for all Korea should be elected by secret ballot on the principle of universal, equal, and direct suffrage.” In the South, Syngman Rhee’s administration also pursued this goal throughout his administration from 1948-1960 (Lankov 2008). Additionally, during the late 1940s, the DPRK initiated a number of hostile foreign policy actions with the intent to set the stage for reunification. These included North

58 The USSR did not achieve its pre-war production levels until 1948 and its subsequent support to North Korea weighed heavily on the Soviet economy (Carter 1972, 9).
59 There was a significant level of tension and the domestic Korean communists (in both the North and the South) instigated agitation that occurred in the South in the late 1940s in hopes of eventual reunification (Weathersby 1993, 23-24).
60 The People’s Republic of China was formally established on October 1, 1949 and Mao’s first visit to the Soviet Union and Stalin occurred in December 1949 (Spence 1990 512, 524).
61 During this period, South Korea was ripe for turmoil and instability. A large number of refugees returned to South Korea in the weeks that followed the Japanese defeat, including 400,000 from the North and over 1 million from Japan (Millett 2005, 59). Additionally, between 1945 and 1947, there were thousands of guerilla fighters operating in the South in a bloody “rural peasant protest” against historic landlord-tenant disparities (Cumings 2005, 243-245).
Korean military operations in the Ongjin peninsula (June and August 1949), protests to the UN over its presence in Korea (Oct 1949), border skirmishes (throughout 1949), and the DPRK shelling of the border town of Kaesong (May 1950) (Finley 1984, 53). By mid-1949, while the majority of foreign troops had been withdrawn from their post-war occupation, the peninsula was far from stable. In the South (including the southern island of Cheju), there were several groups of pro-North Korean insurgents numbering between 500 and 1000 individuals who were conducting unconventional military operations (Millett 2005, 180-181).

In fact, a February 1949 US intelligence assessment predicted an invasion of South Korea by communist forces sometime after the withdrawal of US forces causing a “collapse of the US-supported South Korea” (CIA 1949, 1). Additionally in 1949, both Kim and Rhee sought support from the Soviets and the Americans for “a major assault on the other side”: Kim received approval and support from both Mao and Stalin while Rhee was promised US assistance “only if South Korea were attacked without provocation” (Cumings 2005, 253-254). By 1950, the entire peninsula was on the verge of war.

2.d.2. War Between the Koreas

For the two Koreas, the war from 1950 to 1953 was the most devastating conflict event these states have ever experienced. There is extensive literature on the background of the conflict and scholarship the war is not without controversy, such as an ongoing disagreement among historians (and between the governments of North and South Korea) on who instigated combat operations. The North Koreans consistently blame the war on the United States (KCNA 2012b) while the South Korean government’s official stance is that the attack was an “unprovoked full-scale invasion of the South” (ROK 2012). These views contrast with archival evidence, which

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62 The Soviets withdrew their forces in December 1948 and the Americans removed their troops in June 1949 (Suh 1988, 62; Cumings 1990, 163).

63 Traditional accounts of the war include Appleman (1961), Fehrenbach (1963), Ridgeway (1967), Blair (1987) MacDonald (1987), Yup (1999) who view the war as an unprovoked North Korean attack. More balanced (sometimes referred to as “revisionist”) views include Cumings (1990; 2005) Stueck (2002) and Chen (2011). These scholars base their assessments on an extensive variety of sources, including Russian and Chinese archival materials and note that both North and South Korea were involved in the onset of hostilities. Additionally, the American military’s official account of the war (in condensed form) can be found in U.S. Army (2009, 221-254). The more recent and “revisionist” sources portray the war in the context of both the inter-Korean and international dynamics. Additionally, scholarship that focuses on the prelude period (1945-1950) to the war including Cumings (1981; 1990), Armstrong (2003), and Millett (2005) and a trove of original source documentation available through the Wilson Center’s Cold War International History Project (2012), North Korea International Documentation Project (2012), and the CIA’s FOIA portal (2012).
supports the view that Kim Il-sung initiated combat operations after gaining approval from both Mao and Stalin to reunite the peninsula by force (Zubok 2007, 79-80, CWIHP 1949, Stueck 2002, 75-76 and Cumings 2005, 253). At this time, the Rhee government also wanted to reunify Korea (by force if necessary) although North Korea was better prepared for war (Armstrong 2003, 236).

The first engagements (generally thought to be on the South Korean-held Ongjin peninsula) might actually have been in response to ROK artillery fire (Cumings 1990, 575-577). However, the North Koreans had spent months preparing for war and by the middle of 1950, the Kim regime was prepared to invade. The Truman administration received a number of conflicting warnings from its intelligence apparatus predicting either DPRK aggression (CIA 1949) or a reliance on propaganda and guerilla actions to foment instability in the south (CIA 1950). In any case, the ROK and US military forces were caught unawares by the beginning of the war on June 25, 1950. Within four days of the initial attack, Kim’s soldiers had taken Seoul and within six weeks had pushed ROK forces (and recently arrived UN troops composed primarily of US soldiers) to a small perimeter around the southeastern port of Pusan (Appleman 1961, 35; Ridgeway 1967, 29-30). The United States’ deployment of US forces to support the South was not anticipated by communist leaders and Mao had commented that “there is no need to be afraid...The Americans will not enter a third world war for such a small territory” (Shtykov, 1950). However, Truman considered the conflict as part of a larger attempt by communists to expand their sphere of influence (NYT 1950) and based his decision on efforts to contain perceived Soviet expansionism (Truman 1950). By the end of summer, the two Koreas were in heavy combat and both the US and USSR suddenly found themselves in a “hot” Cold War.

The UN’s amphibious counterattack (led by US General George MacArthur) included landings on the west coast port of Inchon and subsequent recapture of Seoul in September 1950. These actions turned the war in favor of the ROK and UN (Fehrenbach 1963, 240-253).

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64 A telegram from Soviet diplomat Grigory Tunkin to the USSR foreign ministry sent in September 1949 described Kim’s plans to invade South Korea including initial combat operations on the Ongjin peninsula (CWIHP 1949).
65 Cumings (1990, 568-621) devotes an entire chapter to the question of who started the Korean War and concludes, “Who caused the Korean war? No one and everyone, [it was caused by] all who were party to the tapestry of events since 1945.”
66 In December 1950, Kim Il-sung admitted, “the American intervention was an unexpected turn of events” in a speech before the DPRK’s Central Committee (Suh 1988, 122).
67 Although Truman did not publically refer to Soviet involvement at the onset of the war, the administration (including Truman) believed that Stalin was supporting the North Koreans (Truman 1950).
Throughout September and early October, UN forces pushed Kim’s troops northward to their border with China and to the brink of total capitulation. Around the same time, China publicly warned the Americans that if they crossed the 38th parallel, China would intervene in the war (Stueck 2002, 89) although the Americans dismissed this as a “bluff” (MacDonald 1987, 52-56). As the US and ROK forces approached the Sino-Korean border, they began to encounter small units of Chinese soldiers and by the end of October they realized that Mao had sent over 180,000 Chinese “volunteers” over the border to save the North Koreans (Cohen 1988, 54). By mid-November 1950, over 300,000 Chinese forces were engaging the UN troops (Appleman 1961, 767). A full-scale UN retreat followed and by early January 1951, United Nations forces were pushed out of Seoul to defensive positions 40 miles to the south (US Army 2009, 239-240). Although the UN recaptured Seoul in March 1951, fighting from that point on through the end of the war stagnated (Eckert 1990, 345).

The war dragged on until peace was negotiated in 1953 after a two-year stalemate in roughly the same area that had been the previous partition line: the 38th parallel. The overall cost of the war was horrendous, and three years of war destroyed most of the Korean national infrastructure, further solidified the division on the peninsula, and resulted in horrific causalities (mostly borne by the Koreans). UN and ROK losses included 776,000 total casualties (killed and wounded) with South Koreans accounting for 80 percent of the total (ROK Government 2012a). Additionally, an estimated 600,000 North Koreans and 700,000-900,000 Chinese were killed or wounded (Spence 1990, 530). Approximately ten percent of the civilian population (roughly three million people) of both the North and South Korea were casualties and five million became refugees because of this conflict (Oberdorfer 1997, 9-10). As Eckert (1990, 345-346) notes,
Those who experienced the war know that such numbers [as shown above] do not even begin to convey a sense of what it was like…the terror of alien armies and incendiary bombing; the separation of families, often to be permanent; the frantic flight to refugee camps up and down the peninsula…[leaving] scars on an entire generation of survivors, a legacy of fear and insecurity that continues even now to affect the two Koreas…

To the North Koreans, the war was a necessary vehicle to eliminate the division of their ancient land and culture and the Kim regime considered it the most efficient solution to the division of the peninsula. War with the South was considered “inevitable” in light of the Syngman Rhee’s stated intention “to march North” to unite the Koreas (Suh 1988, 112). To the rest of the world, Korea was a test of Truman’s doctrine of containment and the first instance of armed conflict directly between the major Cold War foes (the US, China, and the Soviet Union). By 1953, war had wrecked both sides of the 38th Parallel and solidified Korea as politically divided peninsula.

2.d.3. Recovery and Foreign Assistance

The war itself had left North Korea’s infrastructure and industrial capacity in tatters. An eyewitness account notes that there was “complete devastation between the Yalu River and the capital [Pyongyang]…[there were] no more cities in North Korea” (Cumings 2005, 297-298). In the aftermath of the war, North Korea sought economic assistance from the Soviet Union, China, and other states for recovery efforts. Immediately after the signing of the Korean Armistice, the DPRK gained Soviet pledges of support (FBIS 1953). By 1954, Kim had garnered pledges of aid including $250 million from the Soviets (intended for both heavy industry and defense projects), $350 million from China (providing transportation and agricultural equipment and raw materials), and $250 million from other communist states for reconstruction projects (CIA 1954). Other aid from the Soviets and Chinese included providing

72 In May 1947, Truman declared “I believe that it must be the policy of the United States to support free peoples who are resisting attempted subjugation by armed minorities or by outside pressure” in an appeal to the US Congress to support aid to Greece and Turkey in their own efforts in engaging destabilizing forces (Truman 1947a, 4). Truman’s policy was tested throughout the Cold War period including during the Korean conflict. The stalemate at the end of the Korean War was an ominous foreshadow of the Cold War itself: a continual struggle between the communists and the West, often ending with maintenance of the status quo.

73 The majority of the heavy industry was located in the northern half of the peninsula (CIA 1947a, 4 and Salvada 1993, 31).

74 Cumings (2005, 297-298) was quoting a Thames Television transcript for “Korea: The Unknown War” (Thames, Nov. 1986).
necessities (such as fuel) at “artificially low prices” or in exchange for North Korean goods that “would otherwise have been unsaleable on the international market” (Lankov 2002b, 63).

Additionally, technical assistance was essential for North Korea’s rebuilding and included help from not only the Soviet Union, but also from other Eastern Bloc nations. For example, Poland and Romania provided assistance with transportation and construction power; Czechoslovakia assisted with tool production; engineering support came from East Germany; and help with forestry came from Bulgaria (CIA 1957, 18). Finally, thousands of Chinese soldiers (Chinese People’s Volunteers) remained in North Korea after the end of the Korean War and provided essential labor rebuilding the damaged infrastructure. The labor provided by 300,000 Chinese troops “saved the North Korean regime from total collapse” and reportedly reconstructed railways, repaired 1,300 bridges, constructed over 200,000 square meters of buildings (in Pyongyang alone), and 313,000 miles of embankments for flood control (Kim R. 1968a, 715). North Korea’s recovery relied on these types of assistance and by the mid-1950s, the DPRK showed signs of stability and even prosperity.

2.d.4. Kim Consolidates Power

Although the war in Korea was devastating for the DPRK, it did serve to unify competing North Korean communist factions against a common enemy (Nam 1974, 138). Prior to the Korean War, there were four primary communist factions in Korea. These included the Domestic (underground rebels in Korea during the Japanese occupation); the Yanan (communists who left Korea for China in the 1920s and returned); Soviet Koreans (who were born and grew up in Russia and arrived with the occupation forces); and the Guerilla faction (who had fought the Japanese in Manchuria and had fled to the Soviet Union in the late 1930s, eventually returning to Korea in 1945) (Lankov 2002b, 78-80). Although Kim was from the Guerilla faction, the other members of this group did not enjoy the same influence as Kim and

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75 The Chinese maintained troops in North Korea until 1958, both to support recovery and to deter perceived external threats from the US (Martin 2006, 92).
76 Kim (1968a, 715) obtained these figures from both Kim Il Sung and Nodong Shinmun (North Korea’s leading newspaper).
77 More details on the evolution of foreign aid to North Korea are available in the case study chapter on the North Korean famine.
78 This is also spelled “Yan’an” or “Yenan.”
were generally marginalized in the late 1940s (Lankov 2002b, 84-85). In any case, after the Japanese surrender, these four groups united themselves into a single organization, the North Korean Communist Party (Lankov 2002b, 80-81), which was solidified during the Korean War period.

Kim Il-sung’s goals in the aftermath of the Korean War were focused on national recovery and efforts to strengthen his position as leader of the DPRK (Suh 1988, 139). Kim was able to garner significant international assistance throughout the 1950s and successfully rebuilt the North’s industrial base. Yet his political status was far from secure and without an external enemy to unite them, dissension among the competing Korean communist factions emerged once again.

Kim’s faction strengthened its hold on power immediately following the end of the Korean War through a series of purges. These began with the trial and conviction of twelve members of the South Korean Workers Party, and along with a series of other purges in the mid-1950s, effectively eliminated the influence of the “domestic communists” from the south (Nam 1974, 92-93; Szalontai 2005, 85-86). The Soviet Koreans diminished in influence during the 1950s and while many simply returned to the USSR, others were purged by Kim’s group (Suh 1988, 156; Nam 1974, 139). Additionally, criticism by high ranking party members associated with the Yanan (Chinese Korean) faction during the plenum meeting in August 1956 resulted in another series of purges and members of the Yanan party were “demoted and castigated” (Lankov 2002a, 90; Paige 1963, 19-23; Nam 1974, 139).

During this same time, Kim and his faction were reacting to the wave of “de-Stalinization” that was sweeping through the communist world (Kim I. 1962a, 37). Kim’s post-war efforts to collectivize North Korea’s agriculture, the focus on rapid industrialization in accordance with the Stalinist model and the DPRK’s continued “wartime mobilizations” were in conflict with Moscow’s evolving and more open approach to foreign policy (Shimotomai 2011, 79). However, the relationship between Kim and this faction eventually allowed them to rise to prominence in the Korean communist leadership and eventually assume control (led by Kim) of the North Korean government (Lankov 2002, 86-87).

80 Lankov (2002a, 90) notes that “The faction’s leaders were put on show trial as ‘U.S. spies’ and then shot, while most of their fellow activists were purged from the Party.”

81 Kim “was accused of being an adherent of outdated Stalinist methods and personally responsible for numerous ‘distortions of the socialist legality’ and a headlong rush toward heavy industrialization. These accusations were in tune with the general mood of the time” Lankov (2002a, 90).
Domestic criticism of Kim and his policies also occurred, especially in 1956, as party leaders faulted Kim for “lack of party democracy, the cult of personality…and flawed economic policies” (Person 2006, 29). Khrushchev’s February 1956 speech attacking the “legend” of Stalin was seen as a political attack against North Korea’s leader by Pyongyang (Kiyosaki 1976, 52). Kim’s “cult” status also worried Moscow and caused the Soviet ambassador to pressure the North Korean leader to separate his political duties as Chairman of the Korean Workers Party and head of the government (Shimotomai 2011, 125). Khrushchev’s (1959) “Peaceful Coexistence” approach to dealings with the West was a significant change for communist foreign policy efforts. Yet both Mao and Kim had misgivings toward Khrushchev’s more liberal approach towards the West and the Chinese reaction was to increase both economic and ideological self-sufficiency, thus decreasing dependence on Moscow for support (Kiyosaki 1976, 52).

North Korea’s response was similar and included the idea of self-sufficiency as a societal goal as part of North Korea’s national ideology of juche. Although the North Korean concept of juche has evolved over the years, it generally refers to the supremacy of Koreans as the masters of their own destiny and the importance of independence and national self-reliance. In a December 1955 speech, Kim (1955a) introduced this concept by emphasizing the importance of an independent ideological and economic path for North Korea:

It is important in our work to grasp revolutionary truth, Marxist-Leninist truth, and apply it correctly to the actual conditions of our country. There can be no set principle that we must follow the Soviet pattern. Some advocate the Soviet way and others the Chinese, but it is not high time to work out our own?

The North did not go as far as severing diplomatic ties with either China or the Soviet Union (and other parts of this 1955 speech praised both nations), but this nationalist ideal was a guiding principle for both domestic and international foreign policy actions. Interestingly, the

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82 Shimotomai (2011, 125) contends that Kim was “simply copying” failed Stalinist policies.
83 While Kim complied with the request from Moscow (Shimotomai 2011, 125), this is indicative of the North Korea’s efforts to maintain its relationship with both Moscow and Beijing, neither of which Kim could afford to ignore.
84 During the late 1950s, North Korea began to place an “emphasis on all things Korean over all things foreign” (Lankov 2002b, 67).
85 Ironically, self-reliance as a concept was something that the Japanese also focused on during its expansionist period through the end of World War II. See Barnhart (1987) for details on Japanese efforts to achieve autarky.
juche “campaign” announced in 1955 and another four years later coincided with national food shortages and that Kim was attempting to divert public focus to negative influences of the USSR and China (Shimotomai 2011, 131). Additionally, Kim’s consolidation of power and ascension to ruler of North Korea from 1945 to 1960 was strikingly similar to Stalin’s rise from 1924 to 1936 (Lankov 2002b, 78). Nam (1974, 140-141) also comments on Kim’s rise and stated,

In the road leading to his final victory, Kim showed himself a thoroughgoing Machiavellian. He displayed remarkable skill in balancing the contending forces by mergers, making timely alliances with individuals or groups and changing such alliances when their usefulness was at an end.

In any case, Kim had effectively consolidated power and then sought to expand his influence beyond the borders of the DPRK. At the end of the 1950s and North Korea’s recovery from the war, the Kim regime began to pursue significant hostile foreign policy activities aimed at its two key foes: South Korea and the United States.

2.d.5. Early Hostile Foreign Policy Actions

The North’s initial approach to foreign diplomacy was cautious and often characterized by secrecy and suspicion, even in dealings with its own communist allies (Szarvas 1955). Yet from the very beginning, the Kim regime did establish diplomatic relations with other communist states including the Soviet Union, most of its satellites, and the People’s Republic of China (Koh 1984, 11). These relations were instrumental in the post-war period and helped North Korea work towards achieving its policy goals, which included a “national cohesiveness centered on Kim Il-sung,” rebuilding of the industrial base, and balanced diplomatic relations with both Beijing and Moscow (Kiyosaki 1976, 48). Another foreign policy goal was security from external attack, and the presence of thousands of Chinese troops (who did not leave the peninsula until 1958) helped mitigate threats from the US and South Korea (Martin 2006, 114).

North Korea’s foreign policy interactions during the mid-1950s often focused on the aftermath of the Korean War and were characterized by diplomatic interactions between the

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86 Unfortunately, Shimotomai (2011, 131) provides no details or evidence of the relationship between diversion and these juche campaigns. These types of assertions about diversion are often made by both scholars and policymakers, but require evidence to substantiate.
87 The Hungarian attaché in Pyongyang noted that in the North Korean government “there is a certain incomprehensible secret-mongering aimed at covering up mistakes and difficulties, not just toward the diplomatic corps but toward the Korean people too. Of course, this manifests itself much more sharply toward the diplomatic corps” (Szarvas 1955).
DPRK and the United Nations. There were few, if any, instances of significant military confrontations until around 1958. Up until that time, North Korea routinely criticized the United States and the “puppet regime” of Syngman Rhee (KINU 2011), but engaged in few militarized actions. Subsequent events, initiated by both South Korea and the United States, triggered a resurgence in military hostilities on the peninsula.

During this same period, the Eisenhower administration had embraced the use of nuclear weapons as an option in dealing not only with the Soviet Union, but also in localized conflicts in which American interests were threatened (Gaddis 2005, 146-148). Eisenhower’s “New Look” strategy was intended to establish dominance (lost under Truman) in the Cold War without endangering the US economy (Dockrill 1996, 2). \(^{88}\) Eisenhower sought to reduce the size of the US military (in hopes of strengthening the economy) while relying heavily upon the capabilities provided by lower cost military options, such as nuclear weapons, to counterbalance threats posed by the Soviets and other communist states. Although the US and South Korea had signed a mutual defense treaty \(^{89}\) following the Korean War, Eisenhower’s foreign policy was focused on maintaining security commitments on the peninsula with fewer conventional forces (Stueck 2009, 584). \(^{90}\)

United States’ troop levels in South Korea had been decreasing since the end of the Korean War. At the signing of the Armistice (July 1953), the US had 326,000 troops deployed to Korea, this was reduced to 225,000 in 1954, and by 1957 there were only 71,000 US troops remaining (DoD 2012a). Concurrently, the North continued to rebuild and strengthen its forces with help from both the Soviets (providing weapons and equipment) and the Chinese (supplying manpower). In February 1958, the North Korean army (without the Chinese forces) was estimated to contain between 300,000 and 400,000 troops, 1,000 tanks, and 500-1,000 Russian-built aircraft compared to 600,000 ROK troops in the South (Trumbull 1958a). \(^{91}\)

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\(^{88}\) The text of Eisenhower’s policy is detailed in NSC 162/2 (FRUS 1953).
\(^{89}\) In this treaty, the US pledged to assist South Korea in case of an “armed attack” and currently remains in effect (USFK 2012b).
\(^{90}\) This was part of Eisenhower’s “New Look” strategy to reduce overall conventional troop levels. Eisenhower’s long term strategy was to reduce “army divisions from 21 to 14, navy ships from 1,200 to 1,030, and air force wings from 143 to 137” through troop withdrawals in Korea and cuts to military support units in the US and Europe (Stueck 2009, 584).
\(^{91}\) Trumbull (1953a) estimates that were 350,000 Chinese troops in North Korea although he also notes that China had announced that these troops would soon be moved back across the Yalu into Manchuria. Regardless of the status of these units, Mao still had the ability to rapidly move troops into North Korea to assist with military operations based on China’s close proximity and shared border with the DPRK.
Koreans were also accused of increasing their military capabilities, including obtaining advanced jet aircraft, despite the Armistice Agreement, and there were rumors of deployed nuclear-capable rockets and artillery systems in the DPRK (Hailey 1956). At the end of the Korean War, the US agreed to support a South Korean army with up to 720,000 soldiers (20 divisions), but the US “did not agree to provide the Korean forces with the latest US equipment” which would violate the Armistice Agreement (Callow 1995, 12-13).

However, the increased military capabilities spurred concerns in the US over the South’s ability to defend itself against a North Korean attack (Hailey 1956). Eisenhower responded in June 1957, by announcing that the US would deploy nuclear capable bomber aircraft to South Korea to bolster defense capabilities in response to perceived violations of the Armistice Agreement by the DPRK (Raymond 1957). North Korea’s immediate response was that these deployments also violated the Armistice Agreement and called for a withdrawal of all foreign troops from Korean soil (NYT 1957a). Additionally, the seeming disparity between ROK military capabilities and North Korea’s modernized forces resulted in South Korea’s President Rhee appealing to Eisenhower for additional military assistance.

Rhee agreed to reduce South Korean troop levels in exchange for additional military modernization assistance, stating it was necessary to “counterbalance the unfair buildup of Communist military strength in the northern part of our country which has been taking place since the day the Armistice Agreement was signed” (Rhee 1957). Eisenhower agreed to modernize the South Korean forces and in August 1957 authorized the deployment of nuclear-capable surface-to-surface missiles (“Honest Johns”) and artillery systems (280mm howitzers) to South Korea (NSC 1957). These tactical nuclear-capable systems arrived in South Korea in January 1958 and were controlled and manned by the US Army (Finley 1984, 108). This was followed in December 1959 by the US deployment of nuclear-capable Matador cruise missiles that could range all of North Korea (Jackson 2005, 65; Stars and Stripes 1958).

92 US-financed modernization came after a “reinterpretation” of the Armistice Agreement by the US Department of Defense and State Department based on violations by the DPRK and fears that the ROK would be outmatched by the DPRK in a conventional military conflict (Raymond 1957 and Callow 1995, 13-14).

93 Rhee agreed to reduce South Korean troop levels by 60,000 to address Washington’s economic concerns on sustaining the ROK’s large army financed by US aid (Raymond 1958).

94 In July 1955, the US announced it had sent Honest John systems to Okinawa with the intent to deter aggression in the region (NYT 1955a).
Immediately after nuclear weapons were deployed to South Korea, North Korea’s hostile military actions began to increase significantly. The first notable incident occurred just two weeks after the public announcement of the Honest John deployments. North Korean agents hijacked a South Korean airliner and forced it to land in Pyongyang (Finley 1984, 108). During this same time, although the Chinese declared that all of their troops had returned to Manchuria (and that there were no foreign troops in North Korea), the US announced that it would continue to maintain two ground divisions in the South (Trumbull 1953a). Both of these incidents increased tensions on the peninsula significantly.

Other hostile military incidents in 1958 and 1959 include North Korea’s shooting down of a US Sabre jet which had flown over the DMZ; five DPRK armed infiltration attempts (resulting in the deaths of at least two North Koreans); MiG jet fighter attacks against a US Navy reconnaissance plane; and increased fortifications along the DMZ on the North Korean side (Finley 1984, 108-109). During this same time, North Korea also denounced both the United Nations and the ROK-US alliance through diplomatic pronouncements. These included charges that the US violated the Armistice Agreement, appeals for the removal of foreign troops, and claims that the UN activities in South Korea and within the international community were inappropriate and unlawful (KINU 2011, 20-21; NYT 1957a).

There was a marked decrease in hostile foreign policy military activities in 1960 and 1961, possibly influenced by the political turbulence within South Korea. During this time, Syngman Rhee was removed from power in April 1960 due to civil unrest and opposition to his government. Additionally, a South Korean coup d’état by ROK General Park Chung-hee on May 16, 1961 most likely influenced the North’s efforts to maintain stability on the peninsula, lest a major war break out at a time when the DPRK had made no preparation to “exploit” the unrest in the South (CIA 1961c, 5). Also during this time, the DPRK signed mutual defense treaties with the Soviet Union (on July 6, 1961) and China (July 11, 1961) (Nam 1974, 130).

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95 North Korea released the passengers and crew in March 1958, minus six DPRK agents that had been on board, and kept the DC-3 aircraft in Pyongyang (Finley 1984, 108).

96 North Korean military activities during this time (from a South Korean and US perspective) are well-documented, but South Korean military actions against the DPRK, which may have preceded or even instigated these events, are rarely mentioned in available sources. This is an inherent weakness of analyses of activities on the Korean peninsula at this time: North Korean military actions are often reported at length, but through the lens of the US and its allies, while ROK and US military activities involving the DPRK often are overlooked in media and other reporting.

97 The Kim regime denounced the coup as orchestrated and controlled by the US (DPRK 1961).
The negotiations for these agreements may have dampened Kim Il-sung’s proclivity to raise tensions on the peninsula to assure Khrushchev and Mao that conflict between the Koreas was not imminent. These events helped solidify Kim Il-sung’s grip on power in North Korea by demonstrating that the DPRK could actively engage its political and military foes (South Korea and the United States). Alternatively, these incidents also demonstrated that North Korea was an influential and potentially destabilizing factor in the security regime of northeast Asia.

2.d.6. Evidence of Diversion?

Linkages between hostile foreign policy activities and diversionary intentions were not apparent, at least on the surface. During the late 1950s, although North Korea was recovering from the devastation of the Korean War, it had made significant progress as a society to establish stability and basic services. In fact, many in the South noted that the North Koreans enjoyed a higher quality of life due to both foreign aid and Kim’s success at recovery (Nam 1974, 130). Diversion might have been a consideration for Kim in his diplomatic rhetoric, but the incidence and timing of DPRK hostile military actions often seemed to be related to external events, such as the atomic weapons deployments by the United States in 1958 and the coup d’état in South Korea led by a former ROK general in 1961.

However, diversion may have played a limited role in other policy behaviors by the Kim regime, such as the initiation of his concept of juche and its focus on independence and self-sufficiency (Shimotomai 2011, 131). Yet diversionary activity was a logical policy option for the Kim regime. Kim’s efforts to chart an independent course for Korea despite his country’s reliance on an immense amount of aid from both China and the Soviet Union most likely appealed to nationalist attitudes in the North. Additionally, the maintenance of a “wartime stance” against the US and South Korea probably united the North Koreans either through fear or patriotism against a common foe. The atmosphere in North Korea during the reconstruction period was ripe for diversionary activities as Kim Il-sung sought to unify popular attitudes against the US, enhance his ability to eliminate rivals, and crack down on public dissent.

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98 This was an example of Kim’s unique ability to balance between his two allies/benefactors who were essential in his efforts to maintain a sovereign North Korean regime.
99 Kuark (1963, 63) conducted a detailed study of North Korea’s economy during the 1950s and concluded that even if “one makes allowance for Communist propaganda and window-dressing…it appears indubitable…that North Korea has made greater economic strides during the post-war period as a whole than has South Korea.”
100 Hostilities initiated by the DPRK increased after the deployments of new weapons to the South (1958-1959) and decreased during the time in which the ROK transitioned power from Rhee to Park (1960-1961).
101 As Sobek (2007, 31) notes, diversion provides these types of capabilities to leaders.
Additionally, during this period, North Korea did experience food shortages beginning in 1954 (Lee 2003, 8) and considerable economic turmoil associated with recovery from the devastation of the Korean War. Yet the most significant hostile foreign policy activities came at the end of the reconstruction period (in 1958), and coincided with tensions associated with external threats. Thus, during this period, diversion might have been a factor, but other influences, such as the rising external threat, and the regime’s desire to remain in power, played a larger role in the DPRK’s reactions to security concerns.

The preceding pages have outlined the historical background of the Kim regime and the relationship between internal factors and external conflict activity. In the next two chapters, I analyze North Korea’s hostile foreign policy actions from 1960-2011 and the relationship between those actions and both domestic and international factors.
Chapter 3 - Hostile Foreign Policy Event Analysis

In the era of the information revolution, the DPRK’s release of official statistics is entirely episodic and absolutely minimal, and had been so for over four decades.

Eberstadt (2007)

This chapter includes my analysis of North Korean conflict behavior using quantitative methods. My research reveals the complicated nature of analyzing a closed state but also yields important and empirically-supported findings. I find evidence of statistical relationships in support of Proposition 1 (P1) and the diversionary hypothesis, lending support to the idea that domestic conditions (political and social instability) does influence North Korea’s external conflict behavior. Additionally, I also find limited support for P2 and the argument that some external factors (such as ROK election periods and government type) are related to the Kim regime’s actions. Another key finding was indications there were correlations between the absence of the Cold War and heightened levels of HFP activities. Finally, the relationships not found between other internal and external conditions (such as the DPRK’s domestic economy, UN resolutions and ROK-US military exercises) and DPRK hostile foreign policy activities were also significant outputs. The following sections provide an overview of the quantitative research design and methodology used for this project, analysis of the collected event data, and a summary of the key findings on North Korean hostile foreign policy activities.

3.a. Research Design and Methods

I use a mixed-methods approach to test both propositions and this chapter includes the quantitative analysis portion of this study. Mixed methods offer several advantages over single methodologies, such as social science (deductive) techniques or historical (inductive) methods, to analyze closed states (Levy 1997; Mahoney and Goertz 2006). Specifically, Levy (1989, 284) notes that using both historical and international relations methods to examine the concept of diversionary theory allows for a more comprehensive analysis. Quantitative methods

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102 The first proposition (P1) notes that North Korea’s domestic conditions are related to the incidence of conflict on the Korean peninsula. The second proposition (P2) states that external conditions are more influential in the levels of conflict between North Korea and its neighbors. Chapter 2 provides additional information on these propositions. Additionally, more details on hypotheses supporting these are included later in the chapter.
complement the qualitative (case study) analysis in Chapter 4 of this study and provide a more holistic analysis of DPRK hostile foreign policy activities. Although a multi-disciplined methodological approach (such as the one used in this research) provides significant advantages in analyzing North Korean activities, few scholars use this method. Additionally, this study uses time-series event data analysis to examine the relationships between DPRK hostile foreign policy incidents and the ongoing domestic and international conditions faced by the Kim regime. Time-series event data analysis is the examination of event data (or “event history data”) over time (Allison 1984, 9). I use this technique to conduct a longitudinal event analysis of North Korean hostile foreign policy between 1960 and 2011.

I chose to begin this study with events that occurred starting in 1960. Tensions were still high between North and South Korea in 1960, but the South was distracted with domestic political chaos. Although this was a time of prosperity and relative stability for North Korea, in the South, the political climate was vastly different. In 1960, South Korea’s first regime (led by US-supported Syngman Rhee) came to an abrupt end after massive protests occurred in reaction to rigged national elections. The Kennedy administration’s regional foreign policies focused on the instability in South Korea, rather than the threat posed by the DPRK. Thus at this time, although it still maintained over 50,000 troops stationed in South Korea (Kane 2006), US interest in North Korea was waning. For North Korea, 1960 signaled the end of post-war recovery efforts, a growing economy and Kim Il-sung firmly in control of the North Korean regime (Lankov 2002, 63-65; Martin 2006, 109). Using 1960 as a start point for analysis limits the effects of the Korean War on both the North and South (as both had mostly recovered at this time) and begins the research timeframe at the start of prosperity for the first “Kim Regime.” Just a few years later, North Korea would embark on a series of high-profile attacks along the DMZ against South Korean and US forces as part of Kim Il-sung’s “undeclared war” against South Korea and the US (Bolger 1991).

103 Most of the analytic work involving North Korea is part of larger research projects focused on cross-national time-series studies. Jung’s (2012) mixed-method analysis of diversionary theory and the Koreas remains an exception and this project has benefitted greatly from his research.

104 The US military often uses the term “spot reports” to refer to many of the hostile foreign policy events included in this study. Both the military and diplomatic hostile events include information including the date, intensity (based on Azar’s 1993 scale, which is discussed later), and a description of the event.

105 The Kennedy administration was focused on the upheavals in Korea in 1961 and felt that with current US forces and South Korean military units, a North Korean attack (as long as China did not participate) could be repelled (Presidential Task Force on Korea 1961).

106 North Korea’s economy outpaced South Korea’s well into the 1970s (Oh and Hassig 2000, 8).
The end date of 2011 allows for some of the most intense North Korean uses of force and hostile foreign policy actions to be included in the analysis and signifies the end of the second Kim regime (Kim Jong-il). The 2000s were characterized by a series of hostile DPRK foreign policy actions, dominated by militarized activities. These have included long range missile firings (in 2006) and nuclear tests (in 2006 and 2009), the sinking of a South Korean naval vessel (the Cheonan) and the artillery shelling of a South Korean island (the first such attack since the Korean War) in 2010 (Hom and Thompson 2010; Klinger 2010). This 52-year analysis of Korean hostile foreign policy activities covers two North Korean regimes (Kim Il-sung and Kim Jong-il) and the beginnings of a third “dynasty” (Kim Jong-un).

Scholars often use event analysis in conflict research to determine possible correlations of events, trends over time, and other information that might not be apparent in other types of analysis, such as cross-sectional or case study research (Mahoney and Goertz 2006; Levy 1989). I apply multivariate linear regression to test possible statistical relationships between events and North Korean hostile foreign policy activities.

Hostile foreign policy events (i.e., event data) constitute the dependent variable for the quantitative portion of this research, while domestic conditions and international influences are the independent variables. I also include one control variable to address an explanation for the levels of hostile foreign policy not accounted for in my theory: the influence of the Cold War. I examine these variables in relation to the following two propositions:

**P1:** The deterioration of domestic conditions in North Korea is associated with increases in North Korean-initiated hostile foreign policy.

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107 Kim Jong-il, the son of North Korea’s first leader (Kim Il-sung) died of a heart attack on December 17, 2011 after ruling the DPRK for 17 years. North Korea’s government quickly affirmed that Kim Jong-il’s son, Kim Jong-un was its next leader.

108 Throughout this text, the term “2000s” generally refers to the period from 2000 to 2010. Thus, a statement referring to the “mid-2000s” would be referencing the 2004 to 2006 timeframe.

109 Additionally, using an expanded timeframe addresses methodological criticisms of short-term studies (Bronson 1997, 11; Levy 1989, 265-266).

110 Kellstadt and Whitten (2009, 7) note that political theories are often conceived in terms of causal relationships between variables, which must be observable and include “any entity that can take on different values” (Trochim 2005). These variables are related to the research question and are the “building blocks” of hypotheses and theories. A theory describes the link between the individual variables and is a “reasoned and precise speculation about the answer to a research question, including a statement about why the proposed answer is correct” (King, Keohane and Verba 1994, 19). I categorize variables according to their function: the dependent variable is the output of a particular event is caused or influenced by a single or a number of independent variables. Additionally, control variables provide alternate explanations for events not associated with the independent variables. Finally, a hypothesis attempts to describe the relationship between these variables and to predict future activities.
P2: Increased international tensions are associated with increases in North Korean-initiated hostile foreign policy.

Based on the two propositions above (P1 and P2), I derive eight hypotheses for testing. Three hypotheses (H1, H2, and H3) focus on internal conditions and problems with DPRK stability as the impetus for foreign policy threats or militarized actions. I develop the first three hypotheses based on the overarching concept of diversionary theory, which essentially states that when leaders experience domestic difficulties, they will engage in external conflict, or “violent adventures,” to divert public attention from the ruling regime (Sobek 2007). For North Korea, diversionary behavior may occur when these domestic conditions (in H1, H2, and H3) deteriorate to a level that may cause the Kim regime to increase its hostile foreign policy activities. The first three hypotheses, based on internal conditions, follow:

**Proposition 1 Hypotheses** (internally influenced relationships):

**H1:** The deterioration of political conditions in North Korea correlates with increases in DPRK-initiated hostile foreign policy activities.

**H2:** The deterioration of economic conditions in North Korea correlates with increases in DPRK-initiated hostile foreign policy activities.

**H3:** The deterioration of social conditions in the DPRK correlates with increased DPRK-initiated hostile foreign policy activities.

The other five hypotheses (H4, H5, H6, H7, and H8) examine the alternative explanation for North Korea’s relations with the international community: that external factors, such as UN resolutions, military exercises, election cycles, and type of ROK government, influence the levels of provocative events. I constructed the second set of hypotheses to represent a more conventional view of DPRK conflict and based these on arguments proposed by the Kim regime itself: the level of conflict on the Korean peninsula is exclusively due to external pressure (KCNA 2010a; KCNA 2010f; KCNA 2010g). The “external conditions” (P2) argument finds theoretical support in the “traditional theorist” view of interstate relations. This viewpoint contends that the international system is the primary cause of international conflict (Waltz 1954; 1979). The second set of hypotheses follows:
Proposition 2 Hypotheses (externally influenced relationships):

H4: UN resolutions enacted involving the DPRK are correlated with increased DPRK-initiated hostile foreign policy activities.

H5: Leadership changes in the Republic of Korea (ROK) are correlated with increased DPRK-initiated hostile foreign policy activities.

H6: Leadership changes in the United States (US) are correlated with increased DPRK-initiated hostile foreign policy activities.

H7: Strategic-level military exercises by the ROK and US are correlated with increased DPRK-initiated hostile foreign policy activities.

H8: The presence of ROK conservative governments are correlated with increased DPRK-initiated hostile foreign policy activities.

I test these hypotheses empirically using social science quantitative analysis methods and build upon previous work and concepts from Pickering and Kisangani (2005; 2009; 2010), Li (2008), Levy (1989; 2010), and Bueno de Mesquita (2005). To conduct these tests, I use linear regression analysis\(^{111}\) to examine the relationship between the independent variables (internal or external conditions faced by the Kim regime) and the dependent variable (hostile foreign policy activities). This technique complements the qualitative case studies in this dissertation and the outputs support inferences and generalized observations about North Korean conflict behavior.\(^{112}\) The following sections define and operationalize the variables included in this study.

3.a.1. The Dependent Variable: Hostile Foreign Policy Event Data

Scholars draw upon a variety of methods to measure hostile foreign policy activities and often simply use categories from event data or conflict data research. These efforts have included analysis of the onset of state-level disputes from a simple “conflict/no-conflict” standpoint (rather than scaling individual events) and additional analysis that measures the intensity of the disputes between states. For example Leeds and Davis (1997) and Crescenzi, 111 Regression analysis is the study of relationships between variables. Gujarati and Porter (2009, 15) observes that regression can be used to examine “the dependence of one variable, the dependent variable, or one or more other variables, the explanatory [independent] variables, with a view to estimating and/or predicting the (population) mean or average value of the former in terms of the known or fixed (in repeated sampling) values of the later” [emphasis in original]. In this study, I used a linear regression model, AR(1), to conduct the analysis. More details on this model are available later in this chapter and in Guajaratı (2009, 634-639).

112 This is the goal of all social science research: to make conclusions that “go beyond the particular observations collected” (King, Keohane, and Verba1999, 8).
Enterline, and Long (2008) use militarized interstate dispute (MIDs) data\textsuperscript{113} to analyze dyadic (two-state) conflict and the onset of hostilities. Clark and Reed (2005, 615) advocate an expansion of interstate conflict research beyond the “conflict/no-conflict” typology and examine the propensity of US leaders to use either economic sanctions or force (based on MIDs data) to study hostile foreign policy activities. Other techniques to analyze interstate conflict behavior focus on the examination and scaling of event data. For example, McClelland’s (1999) World Event/Interaction Survey (WEIS) database includes over 98,000 interstate events from 1966 to 1978 and 63 descriptive categories ranging from cooperation to conflict. Goldstein (1992) aggregated this data (WEIS) and scales each category of events for comparison and analysis.

In this research, I rely on similar methods to examine North Korea’s event data and use Azar’s (1993) Conflict and Peace Databank (COPDAB) as a technique to measure conflict. The COPDAB, includes state-level interactions from 1945-1973, ranked using a 15-point scale (Table 3.1 below). On this scale, cooperative actions rate between one and seven, neutral actions are designated as eight, and conflict is annotated from nine to 15 (Azar et al. 1982, 36; Azar 1993). Azar classifies conflict events into seven categories and weights each category. Azar’s (1993, 37-38) scale provides a method to record the intensity of North Korean hostile foreign policy events. Table 3.1 shows Azar’s (1993) entire scale, but I only used the conflict categories for this research on the DPRK:

\textsuperscript{113} Leeds and Davis (1997) and Crescenzi, Enterline, and Long (2008) rely on the Correlates of War Militarized Interstate Dispute Project (COW MID 2012) for their data.
Table 3.1 Azar’s Conflict and Cooperation Scale

<table>
<thead>
<tr>
<th>Scale Category</th>
<th>Description</th>
<th>Weighted Value</th>
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<tbody>
<tr>
<td>15</td>
<td>Extensive war acts causing deaths, dislocation, high strategic costs</td>
<td>102</td>
</tr>
<tr>
<td>14</td>
<td>Limited war acts</td>
<td>65</td>
</tr>
<tr>
<td>13</td>
<td>Small scale military acts</td>
<td>50</td>
</tr>
<tr>
<td>12</td>
<td>Political-military hostile actions</td>
<td>44</td>
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<tr>
<td>11</td>
<td>Diplomatic-economic hostile actions</td>
<td>29</td>
</tr>
<tr>
<td>10</td>
<td>Strong verbal expressions displaying hostility in interaction</td>
<td>9</td>
</tr>
<tr>
<td>9</td>
<td>Mild verbal expressions displaying discord in interaction</td>
<td>6</td>
</tr>
<tr>
<td>8</td>
<td>Neutral Point</td>
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<tr>
<td>7</td>
<td>Cooperative End</td>
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<td>5</td>
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</table>

Azar (1993, 37-38)

International relations scholars use the aforementioned databases and scaling techniques to examine and analyze other types of event data. For example, Sprecher and DeRouen (2005, 127) examine foreign policy behavior of enduring Middle Eastern rivalries using an area-specific event database (the KEDS or Kansas Events Data System)\(^{115}\) and both Azar’s COPDAB and the KEDS coding designations to analyze their dependent variable.\(^{116}\) For this research on DPRK activity, Azar’s COPDAB scaling (but not its database) was the most efficient and the best fit for

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\(^{114}\) Detailed descriptions of each category and event examples are available in Appendix A.

\(^{115}\) The KEDS database (Kansas Events Data System 2012) is now in the Penn State Events Data Project (2012) and is focused primarily on areas such as the Balkans, West Africa, and the Middle East (but not East Asia).

\(^{116}\) Sprecher and DeRouen (2005, 127) note that “Hostile actions in COPDAB are those events coded nine and above. In KEDS, events coded 110 and above are considered hostile actions.” The KEDS coding is more specific than the COPDAB method and uses over 60 categories (Sprecher and DeRouen 2005, 137-138). For this research on DPRK activity, Azar’s COPDAB scaling was more efficient and a better fit for the analysis of Korea events.
the analysis of Korea events. An accurate analysis of North Korean conflict activities requires an original database and unique techniques to accommodate the varied data sources. Appendix B includes details on the database construction and use of Azar’s (1993) scale and Appendix C includes the entire database.

Although data collection techniques (McClelland 1999; Goldstein 1992; Azar 1993; King and Lowe 2003a) discussed above may not be appropriate for North Korea, these scholars’ analytical methods provide the basis for analyzing North Korea’s hostile foreign policy events. Similarly, for this study I operationalize variables using Azar’s COPDAB definitions and scaling to account for differences in events. I chose this method because using expanded views of state interaction beyond conflict provides a more holistic analysis of the influencers of state actions, especially for totalitarian regimes such as North Korea. For example, a firefight along the DMZ is not the same as the sinking of an ROK navy ship or the threat of nuclear warfare. Thus, I chose to code the “intensity” of events to weigh each incident appropriately for analysis following techniques established by Azar (1993).

Figure 3.1 depicts the intensity scores for the 2,100 total hostile foreign policy events that occur between 1960 and 2011. These measures allow for consideration of the proportionality of events. Applying this method to all the events in the database allows for a cursory analysis of the comparative levels of DPRK hostile foreign policy activities during the research period.

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117 Vincent (1983) notes systemic problems with both COPDAB and WEIS event data and comments that these included significant levels of “regeonal bias” and an inability to predict changes in conflict that occurred.

118 This method is based on Nincic (1975, 624), Azar (1982, 36), McClelland (1999, 1); and Goldstein (1992, 376-377). See text above for an explanation of the scaling in the COPDAB and WEIS data.
Figure 3.1 shows the scores for each year based on the recorded hostile foreign policy events (2100 total events from 1960-2011). This research seeks to explain the relationship between the levels of hostile events (as shown above) and internal conditions faced by the Kim regime.

3.a.2. The Independent Variables: Domestic Conditions and External Influences

The independent variables I use in this analysis are domestic conditions and external influences as both of these factors are influential in North Korean aggressive foreign policy choices (KNDU 2011). Additionally, I incorporate methods and measures previously used in studies of authoritarian governments and chose the variables based on the characteristics of the DPRK and data availability. Finally, the paucity of data on North Korea makes any statistical analysis of DPRK internal activity a challenge, thus I often rely on proxy information sources to analyze internal conditions.

**Domestic Conditions**

The first set of independent variables focus on domestic conditions faced by the Kim regime. This includes indicators of domestic stability (political, economic, and social) and their relationships to hostile foreign policy actions. I measure each type of domestic stability temporally by quarter. The following sections include additional details on each of the variables.

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**Political Stability.** Political stability is the relationship between individual actors and societal norms: acts that violate those norms constitute potential evidence of instability (Ake 1975, 273). Political stability also requires “institutional consistency” and that both autocracies and democracies have inherent characteristics that “self-enforce” political stability (Gates et al. 2006, 907). For this study, I measure political instability using two indicators: government stability and national capacity.

The most relevant proxy available for government stability in North Korea is the variable measuring political stability included in Kaufmann’s (2009, 2) World Governance Indicators (WGI) project. Kaufmann (2009, 6) combines political stability and the level of violence (designated as “PV”) in a state in his index and defines PV as “perceptions of the likelihood that the government will be destabilized or overthrown by unconstitutional or violent means, including politically-motivated violence and terrorism.” This variable provides a measure of the North Korean government, which has a reported history of political violence and (to a lesser extent) political instability (Hawk 2003; Kang 2002; Oh and Hassig 2009). The PV score is an aggregated indicator based on a variety of sources such as rankings and surveys from both government and non-government organizations. For North Korea, the score ranges from -0.53 (lower stability) to 0.53 (higher stability) (Kaufmann 2011). The limitation of WGI data is that it is only available from 1996 to 2011, which covers only a portion of the overall time period under consideration (1960 through 2011). However, approximately 1000 out of the 2100 total events in the database occur during this period, and this subset is representative of a significant portion of the total event data.

An additional measure of political stability is North Korea’s national capacity based on the Composite Indicator of National Capabilities (CINC) index from the Correlates of War (COW) Project. The CINC database uses a number of measures to determine overall capabilities including military personnel, defense expenditures, population levels, iron, steel, and energy.

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120 The World Governance Index (WGI) attempts to measure the level of “good” governance using “six dimensions of governance: Voice and Accountability, Political Stability and Absence of Violence/Terrorism, Government Effectiveness, Regulatory Quality, Rule of Law, and Control of Corruption.” This report includes data beginning in 1996 through 2008 for 212 territories and countries. Although the timeframe of the WGI data limits its explanatory capability, this index has the advantage of being one of the only structured measures of political stability applied to North Korea.

121 The overall WGI index averages from -2.5 (less chance of instability) to 2.5 (likelihood of higher instability) with as score of zero as the mean (Kaufmann et al 2010, 9). The scores rely on data from sources such as the Economist Intelligence Unit Democracy Index, Freedom House, Heritage Foundation Index of Economic Freedom, and a variety of other data surveys (Kaufmann et al 2010, 29).
consumption from 1960-2008 (CINC 2011). This measure has not been used previously to measure North Korean stability, yet the authors note that the components of this measure (demography, industrial capacity, and military characteristics) “reflect the breadth and depth of the resources that a nation could bring to bear in instances of militarized disputes” (NMC 2005, 3). These same “resources” (or state capacity) allows the DPRK regime to maintain stability, social order, and domestic control over its population. In other words, increased North Korean state capacity results in enhanced control over DPRK society and more stability. These same capabilities allow the Kim regime to remain in power and limit the potential for political dissent, thus increased CINC scores for North Korea equates to enhanced power for the regime and less possibility of political instability. Thus for North Korea, rather than simply a measure of “national capacity,” CINC scores also provide a useful way to gauge the DPRK’s political stability.

**Economic Stability.** A number of authors use economic stability and related measures to examine the inclination of leaders to pursue diversionary policies (DeRouen 1995; Chapman and Reiter 2004; Pickering and Kisangani 2005; and Li, James and Drury 2009). While almost all scholars agree that North Korea’s economic system has struggled throughout the years, there is much debate on the magnitude and extent of Pyongyang’s ability to manage its domestic economy. North Korea declined to publish official statistics for over 30 years (North Korea Country Profile, 2005; Eberstadt 2007, 18) and the opaque nature of the DPRK makes economic data gathering more of an “art” than a “science.” Statistics on North Korea’s trade also remain difficult to obtain, as the DPRK is not a member of the World Trade Organization or

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122 While this measure is not generally used to measure political stability, it does provide, at least in North Korea’s case, a measure of the Kim regime’s ability to remain stable and in power.

123 For this measure, North Korea’s score ranges from 0.0048 to 0.0135 (with a higher score indicating more capability) (CINC 2011). In comparison, the average CINC scores for South Korea between 1960 and 2007 are twice as high as North Korea and US scores are an average of 18 times higher than the DPRK (CINC 2011).

124 I considered other options for measuring political instability, such as mass and elite unrest, but after careful examination and consultation with other scholars, data for these and other measures of political stability were not found. A number of authors use mass and elite unrest in a particular society as additional measures of political instability. This technique proposes that the influencers of social unrest include the level of dissatisfaction that both the elites (privileged members) of society as well as the masses (ordinary citizen) feel towards the ruling government. Kisangani and Pickering (2009, 500) defined elite unrest in terms of “government crises and purges” and mass unrest as characterized by “general strikes, riots, and anti-government demonstrations” in their analysis of the effects of diversionary military activities. Arthur Banks’ (2004) Cross-National Time-Series (CNTS) Data Archive has reporting on internal instability (including purges, strikes and riots) for many nations and has been used by a number of scholars (Pickering and Kisangani 2005; Bell 2009; Tir 2010). Unfortunately, the CNTS has limited information on DPRK instability and is an inadequate measure for this research.
International Monetary Fund and they are reluctant to allow access to useful economic data. Economic analysis organizations, such as the Economist Intelligence Unit (EIU), attempt to analyze North Korea’s economy, but are subject to the same limitations of data availability as other research efforts. For example, EIU’s *Country Report: North Korea* (2011) provides the following description of a Supreme People’s Assembly (SPA) annual meeting:

As usual, the main formal business at the annual meeting of the SPA was to hear economic and budget reports for 2010, and to approve the budget for 2011. This was as opaque as ever, with a complete absence of hard numbers. All that was given were a few percentages, which even if true cannot be interpreted without a baseline.

The best option for studying North Korea’s economic activity is to gather and analyze information on nations who trade with the DPRK. This concept of “outside-in” (proxy) analysis has its limitations, including the reliance on reporting from other nations and lack of inclusion of illicit trade. Nevertheless, this method is the most objective technique available to measure North Korea’s economy and trade.

For this study, I use two economic indicators: GDP and total trade per capita. Gross domestic product (GDP) refers to the overall domestic output of a nation (goods and services) and is reported on an annual basis. Economists often refer to comparisons between nations of total GDP or GDP per capita in comparisons of wealth and standard of living. This study uses GDP per capita as a relatively simple measure of the relative wealth of the DPRK. Increases or decreases to GDP per person indicate whether North Korea’s national economy is growing or shrinking over time. Data sources for GDP information included Maddison’s (2008) historic GDP database supplemented by CIA (2009; 2010; 2011) data.

The level of imports and exports per person is another indicator of the performance of the North Korean economy. Davies (2002) and Eberstadt (1996 and 1998a) use this measure as an indicator of the strength of the DPRK’s economy. For example, Eberstadt (1998a, 176-179)

125 This study uses proxy sources for trade data from the Correlates of War Database (COW 2012) and CIA (2010; 2011).
126 Other GDP sources considered for this research included the World Bank (World dataBank 2012), United Nations (UNdata 2012), Penn World Tables (Heston and Summers 2012) and Maddison (2008). None of these sources adequately cover the study period and provided consistent data, except for Maddison (2008) and the CIA (2013).
analyzes the DPRK import and export of capital goods\textsuperscript{127} from 1970 to 1995 using “mirrored statistics” from the United Nations and North Korean trade with other nations. He begins by examining the United Nations International Commodity Trade Database and supplements that information with data from countries that engage in the most trade with North Korea (the USSR/Russia, China, and South Korea) (Eberstadt 2007, 68). Additionally, Eberstadt (2007, 72-90) compares his data on North Korean trade with another survey, an unpublished dissertation by Soo-Young Choi (1992), and determines that both analyses report similar findings. \textsuperscript{128} Here, I use a related approach and rely on the Correlates of War database information on trade (COW Trade 2012). I compute total trade per capita by dividing the sum of total exports and imports by the estimated DPRK population.\textsuperscript{129} I supplement the COW trade information with CIA data for the years 2010 and 2011 (CIA 2010; CIA 2011).

\textit{Social Stability.} Public dissatisfaction with DPRK society also indicates domestic difficulties and instability. Measuring these indicators is difficult, but the most significant sign that citizens are dissatisfied with the level of support they receive from the government is the willingness of individuals to flee North Korea. A satisfied population that is confident with its government’s ability to provide for social needs will have fewer incentives to leave. This measure can provide valid insight into the social stability of the DPRK. Choosing to leave North Korea for China or the ROK is a “drastic act” since the “defector would know all too well that his family members remaining behind quite likely would be sent off to political prison camps, perhaps for the rest of their lives…”(Martin 2006, 268).\textsuperscript{130} Since the 1990s, the number of North Korean refugees that fled to the ROK has been meticulously documented by South Korea’s Ministry of Unification (1996; 2001; 2010). Unfortunately, estimates of North Korean refugees in other countries (i.e., China) is only available through anecdotal information and disorganized sources (Oh 2009; Haggard and Noland 2006; Margesson 2007; ICG 2006; US Government 2005). Thus, numbers of North Koreans who flee to the ROK (rather than other states) per year

\textsuperscript{127} Capital goods are finished items that governments use for the production of other items. For North Korea, these include items such as metal, machinery, and other manufactured items (Eberstadt 1998, 180).

\textsuperscript{128} US government researchers also used this approach to analyze North Korea’s economy (Nanto and Chanlett-Avery, 2010).

\textsuperscript{129} North Korea population figures are from the US Census (2012) international population data.

\textsuperscript{130} Those who choose to leave the DPRK risk not only own lives, but also put their family members who remain in North Korea in danger of imprisonment by the Kim regime. Fleeing North Korea violates the DPRK’s criminal code 52 (Betrayal of the Fatherland) which states “Any citizen of the Republic who flees to a foreign country or to the side of an enemy, including the seeking of asylum in a foreign embassy…shall be subject to the death penalty”’ (Demick 2010, 176).
is the only reliable measure available, and I chose to use it in this study. I adjust refugee numbers to account for reporting issues as much of this data was reported in total (rather than yearly) through 1989\textsuperscript{131} (ROK MOU 2012a). Consequently, I only use refugee data during the post-Cold War period and calculate the rate per 1,000 citizens (both military and civilians) based on US Census estimates (2012).

North Korea’s ability to provide for the health of its citizens is another measure of social stability. Social stability measures include infant mortality rates (IMR) and food availability per person. Fortunately, data for both of these measures is available throughout the course of this study period. Infant mortality rates, provides a proxy indication of the overall health of North Korean society. For example, Abouharb and Kimball (2007, 743) note that IMR can be used to “measure development and indicate the extent to which governments provide for the economic and social welfare of their citizens, both of which are correlates of conflict.” North Korea experienced declining rates of infant deaths between the 1960s and late 1980s, but after the end of the Cold War and during its famine period in the 1990s, the rates began to fluctuate (World dataBank 2012; WDI 2012; UN Population 2010).\textsuperscript{132} Numerous research studies use IMR to measure characteristics of society including the level of income equality (Kawachi et al 1997), the effects of governance (Ross 2006), and the relationship between democracy and the availability of healthcare (Lake and Baum, 2001).

For this study, I use IMR as an indication of the Kim regime’s ability to provide for the welfare of its citizens. Organizations such as the UN, World Bank, and US Census and individual researchers (Abouharb and Kimball 2007) provide several measures of these rates, which indicate the death rates for infants to age one, expressed in deaths per thousand births (UN World Population Estimates 2012). After analyzing several measures, I chose to use the UN World Population Estimates (2012) and World Bank World Development Indicators (World databank 2012) to measure IMR in North Korea.\textsuperscript{133}

The final measure of social stability is the ability of North Korea to provide food for its people. If North Korea can provide for its own citizens, then I assume that the population is

\textsuperscript{131} Detailed data on pre-1994 refugees held by the ROK government is not publically releasable (ROK MOU 2012b).
\textsuperscript{132} More information on the causes of the increase in infant mortality during the 1990s is available in case studies on North Korea’s famine (Natsios 2000; Haggard and Noland 2007).
\textsuperscript{133} The UN data was used from 1960 to 1991 and the World Bank information was used from 1992 to 2011 in order to provide complete reporting throughout the dates for the study.
content with the DPRK leaders and their government. This became an acute issue during the 1990s, when North Korea experienced a severe famine during which up to a million deaths occurred as a result of food shortages (Haggard and Noland 2007, 1; Hassig and Oh 2009, 116). International aid to North Korea became an important part of the DPRK economy starting in the 1990s. In fact, during this period the US provided a significant amount of the aid to the DPRK, mostly in the form of energy and food aid. Since 1995, the US provided over $1.2 billion in aid (60% food and 40% heavy fuel oil) (Manyin, 2010). Other key donors of food and include China, South Korea, and Japan. North Korea’s ability to provide food is a stabilizing factor in DPRK society and I use the availability of food in metric tons per thousand North Korean citizens as a proxy measure for social stability.

**External Conditions**

The second category of independent variables involves the pressure exerted on North Korea by the international community in attempts to change the Kim regime’s behavior. Indicators of these external conditions include international conditions that might occur in conjunction with changes in DPRK conflict activity levels such as United Nations resolutions, ROK and US election cycles, the incidence of ROK-US alliance military exercises, and type of South Korean government. These conditions often result in political rhetoric and occasional military responses from the DPRK.

*UN Security Council Resolutions.* North Korea’s actions often result in international responses, the most significant of which is the UN reaction to the North Korean invasion of South Korea in 1950. Since the Korean War, the majority of the international responses (with the exception of actions by the ROK-US alliance) were overwhelmingly diplomatic. These responses are often international admonishments in an effort to change the Kim regime’s behavior. Chapman and Reiter (2004, 897) use *UN Resolutions* enacted by the Security Council as an indicator for external conditions to measure international involvement in crises.

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134 From 1995-2008, the UN’s World Food Program (and other public and private sources) provided a significant amount of food aid to North Korea. During that time, China provided 26.9% of food aid, South Korea provided 26.5%, and the US, Japan, and other nations contributed 17.5%, 10.7%, and 18.4% respectively (Manyin 2010, 13; UN World Food Program Food Aid Information System 2011).

135 This data is available from the Food and Agriculture Organization of the United Nations (FAOSTAT 2012).

136 I also considered economic sanctions for inclusion as an independent variable, but most of the current sanctions against North Korea (especially those enacted by the US) have been in place since the Korean War (and thus do not provide any variation). Rennack (2011) provides a useful discussion of the background and the status of sanctions on North Korea while Noland (2008) contends that they are overwhelmingly ineffective.
These types of international responses and the enactment of Security Council Resolutions potentially influence North Korea’s decisions to engage in aggressive foreign policy and military activity. Here, I code UN Security Council resolutions as binary (dummy) variables: quarters that include the enactment of a new resolution are coded as “one,” and all others as “zero.”137

Leadership Changes. I use two other indicators, US and ROK leadership changes, to investigate a possible correlation between events in the ROK and the US and North Korean hostile foreign policies. While there are several studies on the effects of national elections and leadership decisions to use force, prior research primarily focuses on the US (and presidential decisions to use force in relation to a US election cycle) (Ostrom and Job 1986; James and Oneal 1991; Meernick 1994). In one of the only available studies of its kind, Davies (2006, 148-149) contends that US elections influenced North Korea’s actions during the 1990s resulting in strategic conflict avoidance (SCA),138 while ROK election cycles had little effect on DPRK actions. Other researchers use election cycles to analyze diversion activity (Pickering and Kisangani 2005 and 2007; Li, James and Drury 2009) lending support to the inclusion of this variable. The DPRK reportedly elevates its propaganda activity during each election cycle in South Korea and has historically been accused of engaging in provocative actions in an effort to influence US and ROK election outcomes (Chosun Ilbo 2010b). Additionally, scholars observe that North Korea possibly takes “into account such events as presidential elections here [ROK] and in the U.S. next year to make the North Korea issue a major variable” (Korea Joongang Daily 2011). Nevertheless, these observations are anecdotal and require empirical evidence to determine if statistically significant relationships exist (Enterline 2010, 411-412).

South Korean presidential elections occur every four to seven years, while the US holds elections every four years.139 I code ROK and US leadership changes as “one” for the quarter in which they occur (based on the election date, rather than the assumption of office) while I code periods that include no change as “zero.” Exceptions to this coding are cases of assassination,

137 This concept proposes that the increased international attention given to North Korea because of a new resolution might spur DPRK choices to use diversionary force. United Nations General Assembly actions and resolutions, and economic sanctions do not have similar impacts on the Kim regime.
138 This concept involves state-level efforts to avoid conflict with other states through “conciliatory” actions or attitudes (Fordham 2005).
139 ROK elections or regime changes have occurred in 1948, 1952, 1956, 1960, 1963, 1967, 1971, 1978, 1981, 1987 and every five years thereafter (for this study, 2007 was the most recent). US elections generally occur every 4 years (2008 was the most recent).
coup, or other types of non-election leadership change. For those situations, I code the quarter of the leadership change as “one.”

**Military Exercises.** I measure the impact of ROK-US strategic-level military exercises on DPRK activities. The US and the ROK conduct joint military exercises aimed at maintaining South Korea’s defense capabilities every spring and fall. These include annual events, which range from units in the field to computer-simulated command-post scenarios, including exercises such as KEY RESOLVE, FOAL EAGLE, RSOI (Reception, Staging and Onward Integration), ULCHI FOCUS LENS, ULCHI FREEDOM GUARDIAN, and TEAM SPIRIT. All of these exercises use North Korea as the adversary pitted against the ROK-US alliance (D’Orazio 2012, 277-279). In fact, one of the negotiating terms for the resolution of the 1993 North Korean nuclear crisis was the cancellation of the TEAM SPIRIT training exercises by US and ROK military forces (Sigal 1998, 44-51). These types of exercises often cause intense reactions from North Korea. For example, the DPRK made the following statement in reaction to joint ROK-US exercises in August 2011: “The Korean peninsula is faced with the worst crisis ever. An all-out war can be triggered by any accidents” (Telegraph 2011). Published research is limited on the effects of ROK/US military exercises on North Korean behavior\(^\text{140}\) and no studies of diversionary theory incorporate this factor. I include strategic military exercises jointly conducted by the ROK and US by coding exercise periods in a given quarter as “one” (and non-exercise periods as “zero”).\(^\text{141}\)

**ROK Administration Type.** The final independent variable measures the influence of the political characteristics of the ruling party in South Korea and the internal political parties within South Korea as influential in HFP activities.\(^\text{142}\) This variable examines the contention that DPRK conflict was more prevalent during conservative ROK administrations, because during these times South Korea engaged less and acted with more hostility towards the Kim regime.

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\(^{140}\) D’Orazio (2012, 276) remains an exception and he found that joint military exercises “do not trigger a systematic escalation in conflictual rhetoric or behavior” by North Korea in his study of events between 1998 and 2010.

\(^{141}\) Military exercises at the strategic level are those which employ “instruments of national power in a synchronized and integrated fashion to achieve theater, national, and/or multinational objectives” and operational exercises are those which link the “tactical [combat] employment of forces to national and military strategic objectives” (US Department of Defense 2011, xi). Military war games such as the now defunct “TEAM SPIRIT” and the ongoing ULCHI FREEDOM GUARDIAN exercise fit this category of strategic events.

\(^{142}\) This variable is specifically focused on the internal workings of the ROK government. Davies (2006, 144) notes that DPRK actions were sometimes influenced by the domestic political conditions in the United States and this variable attempts to account for the influence of ROK internal political conditions on DPRK conflict behavior.
conservative ruling party typically takes a more “hardline” approach towards the DPRK (resulting in increased hostile behavior), while a liberal South Korean party is typically more open to engagement with the North (and less conflict). North Korea reacting to perceived threats from the ROK might have caused conflict with the DPRK during these administrations. For example, although North Korea conducted dozens of military operations against ROK and US forces during the mid-late 1960s, these operations were often done in retaliation for previous activities (often military raids) by ROK forces (Michishita 2010, 20-21 quoting Vance 1968). A more recent example is the November 2010 artillery attack by North Korea against the South Korean island of Yeonpyeong. North Korea blamed this attack, which left four South Koreans dead, on previous military activities by South Korea in the Yellow Sea (Yonhap 2010a, BBC 2010). During both of these events, a conservative administration ruled South Korea. In fact, while studies of DPRK-initiated conflict are rare, research on South Korean-instigated events is also absent. Thus using a variable to represent DPRK hostilities as reactions to South Korean administrations potentially provides an important way to explain these conflict events. For this study, I code periods that included conservative South Korean administrations as “one” and liberal administrations as “zero.”

3.a.3. The Cold War as the Control Variable

A potential rival explanation of the incidence of DPRK conflict during the study period might propose that the end of the Cold War had a significant impact on North Korea’s HFP activity levels. During the Cold War, both "threats and incentives" from both the US and Soviet Union potentially "kept the behavior of satellites in check" (Calaway 2001, 106-107). Some argue that in the post-Cold War period, the absence of the "stabilizing" impact of the superpowers may have caused increased repression and conflict actions by these same states (Calaway 2001, 107; Milner 1998). In the North Korean case, the political, military, and economic security provided by both the PRC and Soviet Union may also have worked to dampen DPRK efforts to pursue HFP actions. The cessation of support from the Soviets and changes

143 South Korean administrations that are coded as “liberal” include Yun Bo-seon (1960-1962), Kim Dae-jung (1998-2003) and Roh Myoo-hung (2003-2008). Yun Bo-seon, along with his Prime Minister Chang Myon, took power after Syngman Rhee’s resignation in 1960 and was the leader of “South Korea’s first democratic regime” (Cumings 2005, 350-351; see also Eckert 1990, 355-357). The more recent administrations of Kim and Roh more centrist and liberal compared to other ROK presidencies.

144 The Cold War included external influences (as proposed by P2), but also had such wide-ranging effects, such as ideological support to maintain the regime, Kim Il-sung’s confidence that the PRC and USSR would potentially support his military “adventures” against the ROK and US. The Cold War provided an overarching
demanded by the Chinese also might have affected the DPRK’s willingness to pursue HFP actions, not only in the 1990s, but also in the 2000s, after the worst effects of the famine period ceased. The presence (or absence) of the Cold War provides an alternative explanation for Kim regime conflict activities that have not been properly accounted for in either diversionary theory or the propositions. To account for these factors, I include the Cold War as a control in my multivariate regression models.

The DPRK’s propensity for external conflict might be influenced by the presence of the Cold War and the associated political environment regardless of North Korea’s internal conditions (P1) or the associated external influences mentioned in P2. United States’ and Soviet posturing during the Cold War routinely amplified regional tensions, as both states viewed the Korean peninsula as a strategic-level concern. Additionally, North Korea’s reliance upon the support of both China and the Soviet Union during the Cold War was a key component of its economic health and national security. For North Korea, the end of the Cold War included the evaporation of Soviet support, significant decreases in Chinese assistance, and the beginning of a period of economic crisis and widespread famine (Eberstadt, Rubin, and Tretyakova 1995; Noland 2000; Natsios 2001; Wallace 2007). In addition, China’s rapprochement with South Korea (beginning in the late 1980s) had detrimental effects on North Korea’s perceived ability to maintain its regional security posture (Scobell 2004). Thus, to account for this rival hypothesis, I control for the pre- and post-Cold War activities of North Korea by using the Cold War as a control variable. Years prior to 1992 are coded “one” to measure the Cold war period, with years 1992-2011 coded as “zero.”

3.a.4. Time Series Linear Regression Models

I constructed four models using time series analysis of quarterly observations between 1960 and 2011 of the dependent, independent and control variables described above. Model 1 includes all of the variables noted above that included reliable reporting and variance during and
after the Cold War between 1960 and 2011. Models 2, 3, and 4 are variations of the first model and include WGI, UN Resolutions, and refugee rates respectively.

The models test P1 and P2 by examining the relationship between the independent variables (described above) and the level of hostile foreign policy. Changes in these independent variables (IVAR) or conditions are related to changes in the dependent variable (Hostile Foreign Policy). Conceptually, this relationship is as follows:

\[
\text{Hostile Foreign Policy}_t = \beta_0 + \beta_1 \text{DPRK CINC}_t \cdot 1 + \beta_2 \text{WGI}_t \cdot 1 + \beta_3 \text{GDP}_t \cdot 1 + \\
\beta_4 \text{Trade}_t \cdot 1 + \beta_5 \text{Refugees}_t \cdot 1 + \beta_6 \text{Infant Mort}_t \cdot 1 + \beta_7 \text{Food}_t \cdot 1 + \beta_8 \text{UN Resolutions}_t \cdot 1 + \\
\beta_9 \text{Mil Exercises}_t \cdot 1 + \beta_{10} \text{US Leadership}_t \cdot 1 + \beta_{11} \text{ROK Leadership}_t \cdot 1 + \\
\beta_{12} \text{ROK Admin}_t \cdot 1 + \beta_{13} \text{Cold War}_t \cdot 1 + \mu_t
\]

Hostile Foreign Policy\(_t\) represents the dependent variable (DVAR) during a given quarter (t), \(\beta\) signifies the coefficients, and \(\mu_t\) is the error term. To ensure that I analyze data in the correct temporal order (IVAR followed by DVAR), I lag the independent variables by one quarter (denoted by “t-1”). I include only the lagged data in the regressions. Additionally, the four models were constructed to test these relationships based on differences in data, such as the span of observations. In the first model (\textit{Model 1}, the “Base Model”), I omit the independent variables \textit{WGI, Refugees, and UN Resolutions}, to allow for consistent reporting throughout the study period. This allows for an analysis of the DVAR over the entire study period (1960-2011) with most of the independent variables. The other three models introduce the omitted variables and only include observations during the post-Cold War period. The second model adds \textit{WGI} to \textit{Model 1} as an independent, external condition variable and examines the relationship between conditions faced by North Korea and its HFP activities from 1996 to 2011. \textit{Model 3} adds \textit{UN Resolutions} to \textit{Model 1} and examines the relationship between these conditions and DPRK conflict levels during the post-Cold War period (1992-2011). The final model (\textit{Model 4}) examines Model 1 with the addition of refugee data. Additionally, \textit{Model 4} only includes data from the post-Cold War period (due to lack of reliable reporting on refugees prior to 1992).

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\(^{146}\) In the first model, WGI was omitted due to limited reporting (1996-2011), UN resolutions were omitted because they did not vary during the Cold War (none were passed), and refugee rates prior to 1992 were not reliably reported by the ROK government.

\(^{147}\) I omit the Cold War variable from the other three models because it does not vary during the periods examined by those models. Additionally, UN resolutions were not included in \textit{Models 1, 2, and 3} because of lack of variance prior to 1992.
Model and Independent Variable Data Transformations

After examining the independent variable data, I adjust the models to ensure the use of valid social science and regression analysis techniques. I also adjust the data to account for differences in characteristics of the dependent variable (conflict) data and the independent variables. Specifically, the DVAR is reported as events (with a specific date associated) while the IVARs and control variables are only available in yearly increments. Thus, I collapsed the data into a uniform time period and tested each model using monthly, quarterly and yearly aggregation to see which provide the best statistical fit. Monthly data, although available for dependent variable, requires over-manipulation of the other variables while models using yearly data offer too few observations (52 total).\textsuperscript{148}

Because of these tests, I find that using \textit{quarterly} data (rather than monthly or yearly) provides a suitable “middle solution” that affords an acceptable number of observations without causing significant analytical problems. This provides enough occurrences to allow for regression analysis and consistency for analysis with other data (such as military exercises and leadership changes).\textsuperscript{149} More details and examples of specific data calculations are available in Appendix B.

Additionally, I analyze the models using statistical (regression) analysis to determine their predictive value.\textsuperscript{150} I conduct a series of diagnostic tests on each model to ensure conformity with multivariate assumptions. Detailed results are included in Appendix D. Multivariate regression assumes that the dependent variable (conflict) is continuous, that relationships between the IVARs and DVAR are linear, that the error term is not correlated with each IVAR, and that each independent variable exhibits an additive effect on the dependent variable (Berry and Sanders 2000, 38).

Linear regression analysis also assumes that the model is “correctly specified,” meaning that it includes variables that are necessary and excludes those that are not. Tests for specification bias indicated that there might be specification bias in the models, but I could not

\textsuperscript{148} King, Keohane and Verba (1994, 221) discuss problems with research involving small numbers of observations.\textsuperscript{149} Monthly and yearly aggregation of events were both considered and tested. Quarterly aggregation provided the most consistent event data calculations for analysis and provided enough fidelity to identify long-term trends without over-generalizing the data.\textsuperscript{150} For more detailed explanations on the types of adjustments required for this type of analysis, see Gujarati and Porter (2009, 34-54), Ostrom (1990, 7-16) and Downing and Clark (1996, 107-128).
implement typical solutions (such as finding additional variables) due to the lack of information on North Korea. Thus, I accept potential specification bias as an assumed risk in this analysis. To account for potential heteroscedasticity, I use robust standard errors. Additionally, the data shows correlation between successive time variables (i.e., autocorrelation), which is a common problem with time-series data. I correct for this by using Cochrane-Orcutt AR(1) regressions. Finally, I test for correlations ("multicollinearity") and find high levels of correlation did exist between some of the variables. After attempting a number of standardized remedies to problems associated with multicollinearity (i.e., transforming variables), none was effective. Thus, multicollinearity is also an assumed risk in this analysis.

3.b. Quantitative Analysis

In the statistical analysis portion of this research, I examine time-series event data surrounding the Kim regime’s hostile foreign policy events between 1960 and 2011. In this analysis, I find support for Proposition 1 and a correlation between heightened levels of conflict and both political and social instability. I also find some support for Proposition 2, although the

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151 Heteroscedasticity is a condition where the error terms are constant and not related to the DVAR and robust standard errors is a commonly used statistical procedure to correct for these types of errors.

152 I initially use ordinary least squares (OLS) regression, but detected autocorrelation. To correct for this, I use “autoregressive process of order 1” or AR(1) regression (Cochrane-Orcutt) for the analysis and found it to be a better fit for the data. The advantage of using the Cochrane–Orcutt AR(1) regression technique is that it initially provides an estimate of the autocorrelation error, then includes that error while estimating new regression coefficients, and finally provides a regression output that confirms that the “fitted residuals are independent” (Maggin et al. 2011, 308). See Cochrane and Orcutt (1949), Gujarati and Porter (2009, 55-85), Gujarati (2011), and DSS 2012 for a detailed discussion of this method of regression analysis and AR(1), OLS, and associated tests for validity.

153 Mean variable inflation factor (VIF) scores for each of the models (1 to 4) are at 10 or below, but individual variable scores were often higher. After conducting diagnostic tests of joint significance or the “joint f test” (Blackwell 2008), I find that Model 1 contains variables that are influential in relation to the dependent variable, regardless of their correlation. Similar tests run on Models 2, 3 and 4 indicate that removing variables had little effect on the DVAR, indicating significant correlation between variables in those models. See Appendix D for the statistical outputs of these tests.

154 I conducted a number of tests and transformations on the data (i.e., log, square or cube), but this resulted in either insignificant changes to the overall model outputs or significant skewing of the data. Thus, I simply use the original quarterly data without additional statistical transformations.

155 Gujarati and Porter (2009, 342) note that one method to deal with multicollinearity is to “do nothing” and given the characteristics of this data, this is the best option for this research.

156 This analysis uses longitudinal research, which involves the consistent and methodological collection and analysis of data across time (Menard 1991, 4). I obtained the data through repeated observation of DPRK-related activities (designated as the dependent and independent variables) during a given historical context (52 years, divided into 206 quarters). This method of focusing solely on the long-term activity of North Korea allows for a more structured and detailed examination of the DPRK and its conflict activities. Statistical analysis, with the help of the computer program Stata, is used to examine the data and help support conclusions on relationships between the variables. Stata is a commercially available statistical software package often used by social scientists to analyze the relationships between measurable characteristics (variables) of a specific phenomenon (Stata 2012).
external conditions associated with increased HFP are primarily based on the South Korean government and its activities. Additionally, relationships between the levels of conflict and the presence of the Cold War suggest that North Korean HFP activities are more prevalent during the post-Cold War period. The following pages summarize the data and the statistical outputs. Table 3.2 characterizes and summarizes the data by showing the number of data points, mean, standard deviation, and minimum and maximum (range) of observations.

Table 3.2 Descriptive Statistics for all Variables (1960-2011)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Variable Description</th>
<th>N</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hostile Foreign Policy Activities</td>
<td>Dependent</td>
<td>208</td>
<td>183.8269</td>
<td>184.0945</td>
<td>0</td>
<td>982</td>
</tr>
<tr>
<td>DPRK CINC</td>
<td>Independent (Political)</td>
<td>208</td>
<td>0.008994</td>
<td>0.002955</td>
<td>0.004855</td>
<td>0.013581</td>
</tr>
<tr>
<td>WGI</td>
<td>Independent (Political)</td>
<td>64</td>
<td>-0.0803125</td>
<td>0.3116647</td>
<td>-0.53</td>
<td>0.53</td>
</tr>
<tr>
<td>GDP</td>
<td>Independent (Economic)</td>
<td>208</td>
<td>1987.762</td>
<td>746.0711</td>
<td>1104.994</td>
<td>2841.079</td>
</tr>
<tr>
<td>Trade</td>
<td>Independent (Economic)</td>
<td>208</td>
<td>0.1148044</td>
<td>0.0738334</td>
<td>0.030464</td>
<td>0.368898</td>
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<tr>
<td>Refugees</td>
<td>Independent (Social)</td>
<td>80</td>
<td>0.0449841</td>
<td>0.0446442</td>
<td>0.0007884</td>
<td>0.1209954</td>
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<tr>
<td>Infant Mort</td>
<td>Independent (Social)</td>
<td>208</td>
<td>38.65601</td>
<td>13.13068</td>
<td>24</td>
<td>67</td>
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<tr>
<td>Food</td>
<td>Independent (Social)</td>
<td>208</td>
<td>0.154359</td>
<td>0.009751</td>
<td>0.13531</td>
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<td>UN Resolutions</td>
<td>Independent (External)</td>
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<td>0.1</td>
<td>0.3018928</td>
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<td>1</td>
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<td>Mil Exercises</td>
<td>Independent (External)</td>
<td>208</td>
<td>0.091346</td>
<td>0.288796</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>ROK Leadership</td>
<td>Independent (External)</td>
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<td>0.913462</td>
<td>0.2887958</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>US Leadership</td>
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<td>0.072115</td>
<td>0.259303</td>
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<td>1</td>
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<tr>
<td>ROK Admin</td>
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<td>0.7788462</td>
<td>0.2887958</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Cold War</td>
<td>Control</td>
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<td>0.6153846</td>
<td>0.4160251</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

As shown in Table 3.2, the dependent variable (Hostile Foreign Policy Activities) includes 206 quarterly observations with an intensity level ranging from 0 to 982, a mean (average) of 183.82 and standard deviation of 184.09. The political stability variables follow, with the DPRK national capabilities (CINC) measurements ranging from 0.0048 to 0.0135, a
mean of 0.0089, and standard deviation score of 0.0029. The other political variable, WGI score, has a range of -0.53 to 0.53, with a mean of -0.080 and standard deviation of 0.311. The economic stability variables include GDP per person (in US dollars) per quarter, ranging from 1104.99 to 2841.07 with a mean of 1987.76 and standard deviation of 746.07. I measure the economic variable, total trade per person, in millions of US dollars and it ranged from .0304639 to .3688978 with a mean of .1148 and a standard deviation of .0738. The first social stability variable, refugees, range from .0007884 to .1209954 per person, with an average of .0449 and standard deviation of .0446. Infant mortality rate per 1000 had quarterly averages ranging from 24 to 67 with a mean score of 38.65 and standard deviation of 13.13. The final social variable, food availability per person (in metric tons) ranges from 0.135 to 0.175 with an average of 0.154 and standard deviation of 0.097. I record the other independent (external condition) variables and the control variable as binary and designated these as either “one” or “zero” denoting the presence or absence of the variable. For example, I code periods that included the binary variables, such as UN Resolutions or the Cold War, as “one” and all other times as “zero.”

Table 3.3 shows the results of regression analysis on each of the four models. I use Cochrane-Orcutt AR(1) regression for each model. Appendix D includes the diagnostic tests and full analysis output tables from Stata.

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157 The external condition independent variables include UN Resolutions, Military Exercises, ROK Leadership Change, US Leadership Change, and ROK Admin. The control variable was Cold War.
### Table 3.3 Statistical Analysis Results: All Models

<table>
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<tbody>
<tr>
<td>DPRK CINC$_{(t-1)}$</td>
<td>-55154.67 (17969.03)**</td>
<td>77237.74 (80520.1)</td>
<td>3736.401 (41331.83)</td>
<td>-3189.311 (37417.85)</td>
</tr>
<tr>
<td>WGI$_{(t-1)}$</td>
<td></td>
<td>161.1741 (277.9712)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GDP$_{(t-1)}$</td>
<td>-0.0917953 (0.0705419)</td>
<td>0.1348404 (0.3197684)</td>
<td>-0.0527 (0.0612981)</td>
<td>0.0102596 (0.0714668)</td>
</tr>
<tr>
<td>Trade$_{(t-1)}$</td>
<td>-43.57502 (494.4618)</td>
<td>-502.8026 (1056.531)</td>
<td>116.7253 (703.9506)</td>
<td>-828.2668 (847.7516)</td>
</tr>
<tr>
<td>Refugees$_{(t-1)}$</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infant Mortality$_{(t-1)}$</td>
<td>-7.236242 (5.246148)</td>
<td>7.708937 (11.94308)</td>
<td>-2.374974 (5.832422)</td>
<td>2.756085 (6.745713)</td>
</tr>
<tr>
<td>Food$_{(t-1)}$</td>
<td>-3634.759 (2140.799)*</td>
<td>-11065.66 (12884.88)</td>
<td>-3537.73 (5751.358)</td>
<td>-2949.348 (5301.901)</td>
</tr>
<tr>
<td>UN Resolutions$_{(t-1)}$</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROK Leadership Change$_{(t-1)}$</td>
<td>93.37184 (48.12031)*</td>
<td>98.92562 (70.27786)</td>
<td><strong>107.4748 (61.30165)</strong></td>
<td>100.9797 (65.67377)</td>
</tr>
<tr>
<td>US Leadership Change$_{(t-1)}$</td>
<td>-29.74627 (23.42722)</td>
<td>-5.589573 (58.80727)</td>
<td>3.086805 (50.64341)</td>
<td>16.76734 (53.91637)</td>
</tr>
<tr>
<td>ROK Admin$_{(t-1)}$</td>
<td>110.6997 (49.11612)**</td>
<td>-14.34915 (118.7285)</td>
<td>46.22309 (81.23314)</td>
<td>52.4943 (77.06109)</td>
</tr>
<tr>
<td>Cold War$_{(t-1)}$</td>
<td><strong>179.9121 (58.40437)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R2</td>
<td>0.1221</td>
<td>.2025</td>
<td>.1789</td>
<td>0.2235</td>
</tr>
<tr>
<td>Number</td>
<td>206</td>
<td>62</td>
<td>78</td>
<td>78</td>
</tr>
</tbody>
</table>

*p < 0.10, **p < 0.05, ***p < 0.01

Note: Coefficients are listed first followed by standard errors in parentheses. I use robust standard errors for all models.

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158 In this first model, I omit WGI, UN Resolutions, and Refugees and test each of these in the other models. See next section for a detailed explanation for the characteristics and outputs of each model.
**Model 1** tests the overall relationships between the DVAR (hostility score) and the independent variables that were reliably reported throughout the study period (1960-2011). In this model, I omit WGI due to limited reporting (1996-2011) and do not include both UN Resolutions and Refugees due to lack of variance or unreliable reporting during the Cold War period. This first model includes a number of statistically significant and negative relationships between hostility levels and the independent variables such as DPRK CINC and food availability. Thus, between 1960 and 2011, I find that decreases in North Korea’s national capacity and food supplies are related to increases in hostile foreign policy behaviors. Additionally, ROK leadership changes and ROK administration type are associated with increased North Korean conflict. Finally, the control variable (Cold War) is also statistically significant, and demonstrates a negative relationship to the level of HFP. In other words, the presence of the Cold War is related to decreased levels of HFP, while the absence of the Cold War has the opposite effect.\footnote{\par Many scholars support the idea that the DPRK felt less secure after the loss of USSR and PRC support (Mceachern 2010, 68-70; Park 2012, 324; Cha and Kang 2003, 19; and Oh 2000, 185) and the quantitative analysis seems to support that viewpoint. As stated previously, one of the reasons for using the Cold War as a control is to address that alternate hypothesis. Yet, as the qualitative portion of this research will show, the end of the Cold War was less related to DPRK conflict than it might seem. In many respects, support to North Korea from its communist benefactor (China) never really stopped at the end of the Cold War. While the support from the Soviets evaporated (Radchenko 2011, 309), the Chinese continued to provide aid (either direct or in the form of subsidized goods) throughout the 1990s (Noland 2000, 187) and the PRC continues to do this today (Jayshree and Xu 2013). In fact, when Kim Jong-il died, there were reports of substantial PRC aid to North Korea to ensure stability (Yonhap 2012). China’s policy towards Northeast Asia remains stability and the status quo and an intact North Korea is a key part of that policy (Choi 2012, 54-55). Despite the end of the Cold War, North Korea still received a significant amount of aid (often in the form of trade) from China and that support helped ensure the DPRK remained solvent and sovereign.}

**Model 2** adds the World Governance Indicators (WGI) to **Model 1**, but limits the temporal scope of the analysis to 1996-2011. While this model uses the WGI political stability measures to test for correlations between conflict and the independent variables, I find no relationships and that the model itself is not statistically significant. **Model 3** includes the variables in the first model and UN resolutions, limiting the scope of the analysis to only the post-Cold War period. Aside from the resolutions in the 1950s, the UN did not enact any resolutions until 1993, during the first DPRK nuclear crisis. In this model, the only significant variable is a ROK leadership change (which provides additional support to P2) although the model is also not statistically significant. Finally, **Model 4** examines the relationship between
refugee levels and hostile foreign policy activities during the post-Cold War period. This statistically significant model finds a relationship between increased levels of refugees and heightened DPRK conflict during this period (in support of P1). This lends support to the contention that increased levels of North Korean hostile foreign policy occur in conjunction with higher refugee numbers.

The $R^2$ values for all of the models are relatively low, although Gujarati and Porter (2009 206-207) note that a low score is not “necessarily bad.”160 Based on the $R^2$ value, Model 1 explains 12% of the variance in the level of conflict (DVAR) while Model 4 accounts for 22% of the change in the dependent variable. These two statistically significant models (Model 1 and Model 4) do provide support for Proposition 1 (internal conditions) and limited support for external or international community-based conditions (Proposition 2). Model 1 also shows that other factors are influential, such as ROK election periods, conservative administrations, and the control variable (presence of the Cold War). Additionally, Model 4 is the most robust (with the highest explanatory power) and does provide limited support for the contention that after the Cold War, domestic distress (based on the numbers of refugees) experienced by the DPRK is related to the propensity for increased hostile foreign policy behavior. Models 2 and 3 add little to these arguments and show (with the exception of ROK leadership changes in Model 3) no significant relationships between the variables.

Interpreting the slope coefficients also provides valuable information about the direction and intensity of the relationships between the variables. In multivariate regression, these coefficients measure the “responsiveness” of the DVAR to a change in a particular IVAR when the other independent variables are held constant (Berry and Sanders 2000, 31). Thus, the regression coefficients provide a prediction of the effects of each independent variable on the DPRK’s hostile foreign policy activities. In Table 3.4, I show the substantive effects of a change in each of the significant independent variables from one standard deviation below the mean to one standard deviation above the mean.

160 $R^2$ is a measure of proportional reduction in error and helps determine the ability of the independent variables to explain or predict the dependent variable (DPRK hostilities) (Pollock 2005, 163-164). Alternatively, Gujarati and Porter (2009, 206-207) warn that overemphasizing $R^2$ is a common problem and that scholars “should be more concerned about the logical or theoretical relevance of the explanatory variables to the dependent variable and their statistical relevance.”
Table 3.4 Substantive Effects (Significant Variables)\textsuperscript{161}

<table>
<thead>
<tr>
<th></th>
<th>HFP Unit Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Model 1 (Base)</strong></td>
<td></td>
</tr>
<tr>
<td>$DPRK \text{ CINC}_{(t-1)}$</td>
<td>-992</td>
</tr>
<tr>
<td>$Food_{(t-1)}$</td>
<td>-1122</td>
</tr>
<tr>
<td>$ROK \text{ Leadership Change}_{(t-1)}$</td>
<td>170</td>
</tr>
<tr>
<td>$ROK \text{ Conservative Administration}_{(t-1)}$</td>
<td>172</td>
</tr>
<tr>
<td>$Cold \text{ War}_{(t-1)}$</td>
<td>-221</td>
</tr>
<tr>
<td><strong>Model 3 (Base + UN)\textsuperscript{162}</strong></td>
<td></td>
</tr>
<tr>
<td>$ROK \text{ Leadership Change}_{(t-1)}$</td>
<td>196</td>
</tr>
<tr>
<td><strong>Model 4 (Base + Refugees)</strong></td>
<td></td>
</tr>
<tr>
<td>Refugees$_{(t-1)}$</td>
<td>258</td>
</tr>
</tbody>
</table>

Table 3.4 above shows the intensity of the effects of changes in the IVARs on the DVAR (hostile foreign policy). *Model 1* demonstrates the most amplified effects of changes in internal conditions (CINC and Food availability) and conflict levels. For example, a one unit increase in DPRK national capabilities result in a significant (992 unit) decrease in the level of hostile foreign policy activities and a similar change in food availability results in a 1,122 unit decrease in HFP scores. Refugee levels affected the hostile foreign policy scores as predicted, as a similar increase in refugees resulted in a 258 unit increase in HFP levels. Additionally, the presence of the Cold War resulted in a decrease in the level of HFP by 221 units. Two external conditions were associated with increased levels of HFP. The first was the presence of a ROK Leadership Change, which increased the hostile foreign policy scores by 170 and 196 in Models 1 and 3 respectively. Additionally, ROK conservative governments were associated with heightened HFP and increased the level of conflict by 172 points.

Some of the interpretations above are unrealistic because of the characteristics of the data. For example, CINC scores are extremely small (with a mean of 0.008994) and are also negatively correlated with hostility levels, which range from 0 to 982. Thus, based on the information from the Descriptive Statistics (Table 3.2), a one unit change in CINC would seem to cause hostility levels to increase by over 55,000! This is because of the measurement

\textsuperscript{161} Only the statistically significant variables are included in this table. The substantive effects for all of the variables, are provided in Appendix E (Figure E.5). I calculate the substantive effects by multiplying the standard deviation times two (to represent a change in the DVAR of one standard deviation below the mean to one standard deviation above the mean), multiplied by the slope coefficient ($2\sigma \ast$ coefficient). This demonstrates the influence of the independent variables on the change in the hostile foreign policy scores.

\textsuperscript{162} There were no statistically significant variables in Model 2.
technique used for CINC, which calculates a proportion of global capability (zero indicates no capability, while one indicates all of the world’s capability). This is also reflected in the substantive results above and these calculations offer varying levels of utility in showing the responsiveness of the DVAR to changes in the IVAR.

More appropriate methods exist to examine these relationships. One method is to analyze the changes in HFP activities in temporal relation to the significant IVARs. This provides a more accurate insight into the complicated relationships that I find in this research. Figure 3.2 shows the relationship between HFP, CINC, food availability, and refugee levels. CINC and food availability were scaled to account to allow for comparison.

Figure 3.2 Significant Variables Comparison

Exercising CINC scores reveals near constant increases throughout much of the study period. Yet at the end of the Cold War (and just prior to the famine period), there was an increase in CINC scores (42 percent between 1988 and 1992) that accompanied a relatively low level of HFP activity. This increase in capabilities, along with the continued support of both the USSR and China, might have allowed North Korea to rely less upon HFP activities to achieve its national goals. The end of the Cold War and loss of support saw a gradual increase in JFP activities and the accompanying economic and social disasters that occurred during the famine period in the 1990s.

163 Only the statistically significant variables that are continuous (CINC, Food Availability, and Refugees) are included in this figure.
Additionally, examining food availability shows that between 1966 and 1967, HFP scores increased dramatically (almost 800 percent) and during the same period, there was a 12 percent decrease in food availability per person. Additionally, the increase of hostilities in 2009 (84 percent higher than in 2008) was preceded by was a nine percent decrease in food availability per person between 2006 and 2008. These observations provide support to the idea that as the Kim regime encounters difficulties in feeding its people, it potentially turns to HFP activities and diversion in efforts to gain concessions and distract the public’s attention from food shortages.

Finally, examining the refugee levels shows a correlation between HFP levels and both increases in refugee levels during two periods (2000-2003 and 2007-2009) and decreases in refugees between 2004 and 2005. Between 2000 and 2003, refugee levels increased over 300 percent and during the same time, conflict levels increased over 500 percent; between 2007 and 2009, increases in HFP activities (170 percent) accompanied increases in refugee levels (15 percent) during the same period. Decreases in refugee levels occurred either just after or in the same year as decreases in HFP levels in both 2005 and 2010. This lends support to the idea that decreases in hostilities are potentially related refugee levels, especially after the famine period. In other words, as diversionary incentives (such as domestic distress, indicated by refugee levels) disappear, the levels of North Korea’s HFP activities also decrease.

3.c. Summary and Conclusions

This analysis of North Korean activity demonstrates the complicated nature of dealing with unruly sources of data on a closed state. It also shows statistically significant relationships between conflict and the conditions the Kim regime has faced over the past 52 years. The data provides support to P1 and diversionary theory as a possible explanation for DPRK conflict activities. Decreases in political stability (measured by DPRK CINC) and social stability (Food and Refugees) were correlated with increases in HFP activities indicating support to H1 and H3. The analysis also provides some support to P2, but only with the variables focused on the characteristics of the ROK government. I find that two of the hypotheses (H5 and H8) associated with external influences are positively correlated with conflict levels and indicate that the actions of South Korea are associated with increases in conflict activity. Finally, the control variable (Cold War) is significant, but associated with decreased hostile foreign policy activities. This indicates that prior to 1992, North Korea demonstrates a lower propensity to conduct external conflict activities compared to the post-Cold War period. The lower overall incidence
of conflict during the entire Cold War (despite the spike in activity in the late 1960s) may have been due to a combination of the overall economic difficulties experienced beginning in the 1970s and the overarching security “umbrella” as a result of economic support and the defense alliances with the USSR and PRC. After the Cold War ended (and subsequent loss of support), the Kim regime might have been more inclined to engage in conflict to increase its security posture within the region and in an attempt to ensure domestic stability.

Finally, some of the most important results of this examination come from the relationships not present between the DVAR and variables such as UN Resolutions, ROK-US military exercises and internal DPRK economic conditions. For example, throughout all of the models, I find that economic conditions and infant mortality levels have no relationship with hostility levels. Similarly, military exercises and US leadership changes are not associated with variances in North Korean conflict levels. Perhaps most striking is the lack of relationship between UN resolutions and DPRK actions, which I find to be uncorrelated in Model 2. Thus, the lack of relationships potentially leads to questions about which external conditions and actions by the international community actually affect North Korea’s conflict behaviors.

Based on the empirical evidence presented, this chapter shows there is a relationship between North Korea’s internal conditions and its external activities. Yet this fails to tell the complete story. Determining if particular events were actual cases of diversion, or related to other motivations, remains problematic and a much more thorough analysis of individual events is required. Unfortunately, the quantitative analysis I present above only provides evidence of statistical linkages between hostile events and conditions and is insufficient to explain the relationships between conditions faced by the regime and external conflict. These findings potentially support the contention that diversionary behavior might be present (i.e., increased external conflict because of internal instability). Additionally, while the analysis above uses some of the best proxy data available on North Korean activities, the concept of “intent” of the regime to divert the public’s attention is difficult to quantify. Thus, although the quantitative analysis provides insight into the conditions faced by North Korea and its level of external conflict, this is an incomplete characterization. The addition of case studies to examine individual periods of internal distress and conflict provides for a more comprehensive examination to determine if diversion was a factor. More evidence is needed to test both propositions and to identify stronger historical linkages between domestic distress and hostile
foreign policy activities. The next chapter provides an analysis of three case studies on DPRK conflict behavior during times of both internal and external stress to complement this quantitative research.
Chapter 4 - Case Study Analysis of North Korean Conflict

Kim is neither crazy nor strange; he is just doing his job.  
_Hassig and Oh_ (2009)

This quantitative analysis uses a systematic approach to compare three case studies and provide a more holistic examination of North Korean conflict actions. Case study analysis, or the qualitative analysis of a single event to “shed light on larger class of cases” (Gerring 2007, 20), has received greater attention from political scientists in recent years. As Levy (2007, 197) notes, “We see a growing recognition in the discipline that case studies can in principle play a useful role, not only in historical description but also in the development, refinement, and perhaps testing of theories.”

In this chapter, my findings do not provide substantial support to the idea that domestic conditions are the primary influencers of conflict behavior by the DPRK. In fact, the case studies provide less support than the quantitative analysis to the first proposition and that while domestic conditions were sometimes influential in HFP levels, they were only to a limited extent. Additionally, while diversionary-type activities did occur, the conflict levels during the first two case studies did not conform to diversionary theory predictions. I find that external influences were much more influential in DPRK conflict actions than internal conditions.

This section begins with a discussion of the research methods, case selection concept, and each case’s relevance to the research. Next, I discuss the comparison methods used and conclude with an explanation of how structured methods help to identify influential events in the individual cases. This section provides the basis for the case studies and comparisons that follow later in this chapter.

4.a. Research Design and Methods

Case study selection for this research follows techniques described by a number of methods theorists including George (1979), King, Keohane, and Verba (1994), and Seawright and Gerring (2008). For valid analysis, cases should be chosen to avoid selection bias concerns\textsuperscript{164} and vary on the dependent variable (hostile foreign policy) (King, Keohane, and

\textsuperscript{164} Collier and Mahoney (1996, 59) define selection bias as “occurring when some form of selection process in either the design of the study or the real-world phenomena under investigation results in inferences that suffer from systematic error.”
Additionally, case study selection should have “useful variation on the dimensions of theoretical interest” and should include a sample that represents the larger population (Seawright and Gerring 2008, 296). This study limits its cases to similar historic situations in North Korea and strives to achieve unit homogeneity\(^{165}\) to the extent possible. The advantage of homogenous cases is that when the theoretical “experiment” is run, the outputs should be similar (King, Keohane, and Verba 1994, 91).

Goertz and Diehl (1995, 31) note that in order for a significant change in the pattern of international conflict, a “large shock” might have to occur. They describe this condition as a “political shock” and define it as “a dramatic change in the international system or its subsystems that fundamentally alter the processes, relationships, and expectations that drive nation-state interactions” (Goertz and Diehl 1995, 31). While Goertz and Diehl (1995) examine this concept in relation to enduring rivalries, this same method can apply to the analysis of states such as North Korea. In this research, I use the concept of “political shocks” to identify North Korean cases that have significantly affected the political and security status quo within East Asia.\(^{166}\)

My case selection strategy identified two cases (famine in the 1990s and the succession efforts in the 2000s) in North Korea’s history based on “shocks” to the domestic and international political environment associated with the Kim regime. Additionally, I include a third case (North Korea’s rise to power) which includes a period relative political stability for North Korea that provides depth to the discussion. The final case demonstrates the difference between the independent and dependent variables in periods of domestic stability and instability for the DPRK and conforms to the case selection concept of “useful variation” (Seawright and Gerring 2008, 296). The cases are listed chronologically below and a synopsis of each follows:

**Case 1 – North Korea Becomes a Regional Power (1963-1969).** This period saw North Korea’s rise as a stable communist state with political and economic links to both the Soviets and

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\(^{165}\) King, Keohane, and Verba (1994, 91) define unit homogeneity as the condition when “the expected values of dependent variables from each unit are the same when our explanatory variable takes on a particular value.”

\(^{166}\) In his qualitative analysis of Korean “military-diplomatic campaigns” Michishita (2009, 4) based his selection of Korean cases on two criteria: sustained use of force or threat for at least a year and a major crisis in which the US-ROK authorities significantly increased their defense condition level (DEFCON). Although these criteria yielded important cases of North Korean conflict, Michishita’s research omitted significant crises associated with “shocks” (such as famine) to North Korea, which had significant impacts on the DPRK’s domestic institutions and forever changed the Kim regime’s relationship with the international system. Additionally, events such as North Korea’s famine also resulted in a redistribution of power within the international system and constituted a political shock as described by Goertz and Diehl (1995, 36).
Chinese. Additionally, the Kim regime did not hesitate to use force as a means for diplomacy, which changed the regional balance of power and increased both international tensions and reactions (both military and diplomatic) from the US and ROK. Although this was a time of relative prosperity for the DPRK, it did experience the beginnings of economic difficulties that would become amplified in the decades that followed. This case also adds considerable depth to the research by expanding the overall temporal framework of the study. Additionally, the inclusion of the Kim regime’s actions and relative stability during the 1960s allows for useful comparison and contrast with the other two cases of “political shocks” to the DPRK regime.

**Case 2 – The Great Famine (1993-1999).** This “political shock” resulted in the deaths of five to ten percent of the population and caused North Korea’s first-ever appeal for substantial humanitarian assistance. During this time, North Korea weathered the death of its founder (Kim Il-sung), the leadership succession to Kim’s son, and a nuclear standoff with the United States and South Korea. This period fit the criteria of a “political shock” as North Korea assumed a new role in the region: as an aid recipient that concurrently posed a conventional security threat to the international community.

**Case 3 – Regime Succession (2008-2011).** This period included efforts to secure the Kim regime's succession and was accompanied by a range of active foreign policy behaviors. The “political shock” was significant as the DPRK again experienced challenges associated with Kim Jong-il’s declining health and preparations for its second father-to-son dynastic power transfer. During this same period, North Korea established itself in yet another role as a proven nuclear-armed state that was chronically dependent on external sources of economic assistance from the international community.

To ensure case comparability, the concept of “unit homogeneity, equivalence, and cross-case validity” (Gerring 2005, 183) also influenced the selection process. Based on these criteria, selected cases include periods of international hostilities (all cases), external aid intervention (Cases 2 and 3), and internal tension (all cases) based on conditions facing the Kim regimes. These cases have similar background conditions (such as the same ruling regime and similar regional security conditions) and I evaluate these using the consistent independent

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167 Not all of these cases are “perfectly” congruent and comparable (although no case selection can achieve perfect symmetry), but this selection allows for a representative sample of events that have occurred between 1960 and 2011.

168 This includes conflicts involving North and South Korea.
variables. Admittedly, these three cases encompass a wide timeframe, but one of the most effective methods to analyze North Korea’s activities is to encompass a broad historical spectrum as demonstrated by Michishita (2009). This also leverages the advantages of the blending of both international relations qualitative methods and “history-centric” views (Levy 1997; Gaddis 1997; Kennedy-Pipe 2000) of hostile foreign policy actions by North Korea.

When I apply the propositions (P1 and P2) to these cases, the following outcomes are expected:

Table 4.1 Case Study Expected Outcomes

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Expected Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Case 1</strong> (Emergence)</td>
<td></td>
</tr>
<tr>
<td>Political Difficulties</td>
<td>Low</td>
</tr>
<tr>
<td>Economic Difficulties</td>
<td>Low to Medium</td>
</tr>
<tr>
<td>Social Difficulties</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>Lower than average levels of conflict</td>
</tr>
<tr>
<td><strong>Case 2</strong> (Famine)</td>
<td></td>
</tr>
<tr>
<td>Political Difficulties</td>
<td>Medium</td>
</tr>
<tr>
<td>Economic Difficulties</td>
<td>High</td>
</tr>
<tr>
<td>Social Difficulties</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>Higher than average conflict</td>
</tr>
<tr>
<td><strong>Case 3</strong> (Succession)</td>
<td></td>
</tr>
<tr>
<td>Political Difficulties</td>
<td>Medium to High</td>
</tr>
<tr>
<td>Economic Difficulties</td>
<td>Medium to High</td>
</tr>
<tr>
<td>Social Difficulties</td>
<td>Medium to High</td>
</tr>
<tr>
<td></td>
<td>Higher than average conflict</td>
</tr>
</tbody>
</table>

Table 4.1 shows the expected levels of conflict based on the internal conditions according to P1, the primary focus of this study, which expects that those conditions are related to external conflict. The structured analysis of the case studies demonstrates that external conflict was related to domestic conditions, but not always in the manner expected.

4.1. Comparing Cases and Variables

To test the hypotheses mentioned previously, I analyze each case using two methods: structured, focused comparison and process tracing. Structured, focused comparison requires developing a set of questions and applying these to each case. This case study analysis method allows for a “systematic comparison and culmination of the findings of the cases possible…and deals with only certain aspects of the historical cases examined” (George and Bennett 2005, 67). I focus the questions on a theoretical concept (diversionary theory) to examine whether or not
causal relationships exists between conditions faced by the Kim regime and external conflict. This method is “structured” for comparison and “focused” to limit the examination to important aspects of each case. The questions provide for an examination of the cases in light of both propositions. Oakes (2012, 69) and Jung (2012, 90-91) use similar technique in their studies of diversionary behavior.¹⁶⁹ The following questions focus on the presence and effects of the independent variables and the associated hypotheses are included in parenthesis:

Measuring the level of conflict (dependent variable)
1. What was the level of hostile foreign policy (HFP) during the case study?

Effects of internal conditions (independent variables):
2. Was political instability associated with heightened HFP activities? (H1)
3. Were economic difficulties associated with increased HFP? (H2)
4. Was social instability associated with periods of increased HFP? (H3)

Effects of external conditions (independent variables):
5. Were UN resolutions against the DPRK associated with increased HFP? (H4)
6. Were ROK leadership changes associated with increased HFP? (H5)
7. Were US leadership changes associated with increased HFP? (H6)
8. Did ROK/US strategic-level military exercises associated with increased HFP? (H7)
9. Was the presence of a conservative ROK government associated with increased HFP? (H8)

Using a structured, focused comparison to initially review each case in the aggregate allows for a subsequent in-depth comparison of the characteristics or “processes” which exist in each case. This method of within-case comparisons or "process-tracing" provides significantly more fidelity to my analysis. Process-tracing involves analyzing the cases based on "causal mechanisms, or processes, events, actions, expectations, and other intervening variables, that link putative causes to observed effects" (Bennett and George 1997) and provides a useful method to examine North Korean conflict case studies.¹⁷⁰ These questions represent the overall research design and will examine the linkage between the dependent variable (hostile foreign policy) to

¹⁶⁹ Jung (2012, 90-91) adapts a technique (the “hoop test”) developed by Van Evera (1997, 29-31) to measure the validity of his theories. He notes that if the concept successfully passes the tests (by answering the questions or passing through the “hoops”), then the “confidence in the validity of a given hypothesis” is increased (Jung 2012, 91). Admittedly, this is not a perfect measure, but given the subjective nature of qualitative analysis, it does provide a means to compare each case.

¹⁷⁰ This method is particularly important for examining the North Korean cases in that process-tracing methods clarify inconsistencies between cases by “helping to assess whether differences other than those in the main variable of interest might account for the differences in outcomes” (George 1979, 81).
the independent variables (the internal and external conditions faced by the DPRK). In the following section, I provide details on these variables and the methods chosen to examine them in the case studies.

4.a.2. Measuring Hostile Foreign Policy (Dependent Variable)

To support the case study analysis, I constructed a database of events that records reported instances of hostile foreign policy activities. The sources for the events were government reports from the US, South Korea, and North Korea compiled by a number of ROK and US agencies.\(^1\) This database provides the basis to analyze North Korea’s hostile foreign policy events (see previous chapter for more details). In the introduction to each of the case studies, I compare the level of conflict for each case to the overall average level of conflict throughout the study period to allow for an examination of the intensity levels in relation to the independent variables.

4.a.3. Internal conditions (Independent Variables)

This qualitative analysis is consistent with the quantitative section and examines the same internal and external conditions faced by the Kim regime. As noted previously, Proposition 1 (P1) contends that difficult domestic conditions in North Korea are related to the incidence of conflict on the Korean peninsula. If P1 is correct, the internal conditions present in North Korea will spur diplomatic and military conflict. I test this by analyzing the political, social, and economic stability of North Korea in these case studies. For these case comparisons, political instability measures the overall political control exercised by the North Korean regime and the government’s ability to remain intact. I measure economic instability in North Korea by using historical cases of economic difficulties for North Korean citizens as indicated by the expansion or contraction of the economy. Social instability indicates the ability of North Korea to meet its citizens’ basic needs and includes the availability of food, energy, and shelter using historic events, refugee testimonies and United Nations’ reports on overall food availability in the DPRK.

4.a.4. External Conditions (Independent Variables)

\(^{171}\) I use six data sources to construct the event database used in this analysis: the USFK Command History Office, the United Nations Command (UNC), the South Korean government’s Korean Institute for National Unification (KINU), Fischer’s CRS Report, the New York Times Historical Archive, and Lexis-Nexis Academic Search.
The second proposition (P2) states that external conditions are more able to explain North Korea’s hostile foreign policy activities. Thus if P2 is correct, then North Korea’s actions are based on exogenous influences such as international sanctions, external elections and “enemy” military exercises. The presence of UN resolutions and sanctions are another key variable and I examine the effects of these decisions on the DPRK. Another possible influential factor in North Korean behavior is the presence of presidential elections (or succession) in the US and ROK. I also include strategic-level US-ROK military exercises (such as “TEAM SPIRIT” or its equivalent) along with North Korean responses.

4.a.5. Methodological Concerns

Research on closed stated such as North Korea often requires a refined approach based on the availability of data and this has influenced both the selection of cases and variables. I chose cases for this research and identified variables based on theoretical concepts (diversion) and operationalize using generally accepted standards for qualitative analysis (Seawright and Gerring 2008; Gerring 2001). I also incorporate commonly used analytical methods used to examine authoritarian states when possible. Additionally, scholars often use many of the variables mentioned (economic factors, military capabilities, election cycles, political stability, and societal factors) in diversionary literature. Thus, these case study methods, selection techniques, and variables are among the best (and often the only) options available to support a comprehensive analysis of the Kim regime’s foreign policy choices. In the following sections, I analyze three case studies using structured, focused and process tracing methods to identify and discuss the relationships between the conditions faced by North Korea and its external conflict activities.

172 I discuss ongoing resolutions, but only newly enacted resolutions are counted for this measure.
173 From 1976-1993, the US and ROK conducted “TEAM SPIRIT” strategic military exercises to improve joint and combined operations capabilities and to exercise US reinforcement of South Korea in the event of war with North Korea (Yoon 2003, 98). The ROK and US also conducted other strategic exercises and relevant ones will be discussed in each case study.

There is no mistaking North Korea's assertion of independence. Pyongyang's maturity in power and economic stability has enabled Kim II-song to firmly establish his own autonomy and independence.  

Kim R. (1968)

In this chapter, I analyze the relationship between the internal and external conditions North Korea experienced between 1963 and 1969 and the incidence of DPRK hostile foreign policy. I use the questions identified in the previous section to analyze the relationship between conditions faced by the regime and the DPRK’s pursuit of military and diplomatic hostilities. I find that North Korea experienced internal stability throughout much of the 1960s, although the levels of hostile foreign policy (HFP) activities during this period were at unprecedented levels. Although there was evidence of diversionary-type activities identified during this study, the much of this effort were focused on coalescing domestic support for external conflict actions, rather than distracting the public from internal conditions. At the same time, as the DPRK began to experience difficulties associated with centralized economic policies, the level of hostile foreign policy activities increase significantly. But more significantly, I find that a number of external conditions were associated with changes in the level of conflict, such as ROK and US leadership changes, military exercises, and the presence of a conservative South Korean government. Other factors are also influential in HFP activities, such a Kim’s desire to reunite the peninsula, and the activities and characteristics of the South Korean government. Analysis of the conditions within this case provide support to P2 and only limited support for both P1 and diversionary theory as possible explanations for North Korea hostile foreign policy activities.

The case study begins with a discussion of North Korea’s initial success as an emerging communist state followed by an examination of the Kim regime’s decision to increase the level of hostilities on the peninsula. Next, the case is subjected to the qualitative tests (questions) mentioned in the previous chapter to determine the validity of the two hypotheses. These questions examine North Korea’s internal conditions (political, economic, and social), external influences (UN resolutions, South Korean elections, and ROK-US military exercises), and the

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174 During this case study, I find evidence that the Kim regime used diversionary behavior throughout the period to support a constant air of “wartime readiness” and mobilization of the population against external threats to sustain its grip on power. Domestic conditions during this case study were generally stable, arguably the best during the entire study period (1960-2011).

175 Both North and South Korea considered the division of the peninsula by external powers an unnatural state of affairs as reunification was always a foreign policy priority for both states.
relevance of diversionary theory to the case. The chapter concludes with a summary of the test results and a discussion of the relationships between the independent variables (questions), the dependent variable (hostile foreign policy), both hypotheses, and the concept of diversion. Finally, I enclosed a timeline (see Figure 4.6) at the end of the chapter to provide historical perspective to the events described in the analysis.

4.b.1. North Korea Emerges and then Risks War

The 1960s were the “Golden Age” for North Korea compared to later, much more difficult times. While the economy was not performing to its full potential, the DPRK enjoyed a standard of living higher than many of its neighbors, including South Korea and China. North Korea provided free education and health care and literacy rates rose significantly. Kim Il-sung had gained international prestige as his government navigated a political and economic path between both the PRC and USSR. By the early 1960s, North Korea had successfully emerged from the devastation of the Korean War and firmly established itself as a stable communist state.

North Korea demonstrated its unique international position by maintaining active diplomatic relations with both the Chinese and Soviets despite the Sino-Soviet split during that time. Through 1962, the DPRK was able to remain relatively neutral in the disagreements between the Soviets and Chinese\textsuperscript{176} but soon began to “lean” towards China because of fundamental disagreements over Soviet ideological shifts and differences in how to approach the West, especially the US (Kiyosaki 1976, 55).\textsuperscript{177} Additionally, Chinese concessions to the North Koreans on border negotiations and disagreements over arms sales with the Soviets pushed Kim into closer alignment with Beijing (Westad 2007, 164; Shimotomai 2011, 139).\textsuperscript{178} Strained relations continued in 1963 and 1964 and the Soviets and North Koreans continued to experience a number of economic disputes.\textsuperscript{179}

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\textsuperscript{176} One of the most significant outward signs of this neutral stance was Kim’s agreement to mutual defense treaties with both Moscow and Beijing in 1961. Additionally, Scalapino (1963) provides a useful overview of North Korea’s balanced attitude in 1962 towards its “fraternal Socialist allies.”

\textsuperscript{177} Both North Korea and China considered the US an obstacle to their reunification policies and “favored the adoption of a tough posture toward the United States rather than an attitude of conciliation” (Kiyosaki 1976, 55).

\textsuperscript{178} These actions resulted in a reduction of both financial and technical support from Moscow (Koh 1976, 126).

\textsuperscript{179} The Soviet Ambassador to North Korea mentioned a noticeable change in his communications with DPRK diplomats stating, “I am noticing as of late that all responsible Korean officials, beginning with the highest leadership, have turned into meteorologists. They cannot find any other topic for discussion except for weather” (Moskovsky 1963).
Khrushchev’s removal from power in October 1964 allowed the North Koreans to improve relations with Moscow without having to face the former communist leader directly (Kiyosaki 1976, 62). Relations between the North Koreans and Soviets immediately began to thaw and were enhanced by the reestablishment of military support, such as Moscow’s agreement to supply air defense systems to the DPRK in May 1965 (Kuznetsov 1965). Additionally, after a series of coordination visits between the North Koreans and Soviets, both signed formal economic agreements in June 1966 providing long-term support for DPRK industrial projects and trade (RFE 1966). During this time, North Korea’s emergence as an active player within the communist bloc forever changed the relative balance of power within the region.

In the early 1960s, Kim’s national focus shifted from efforts to improve the DPRK’s economy towards prioritized support to the military, which signaled a change in foreign policy emphasis from “peaceful unification” to a more aggressive policy of “Korean revolution” in the South (Kim H. 1977, 208). Additionally, “it became clear that the North Korean regime had changed its tactics for national unification” by efforts to blend both political and military measures to destabilize the South (Kim H. 1977, 212-213). As a result, North Korea’s military expenditures increased exponentially during this period. As shown in Figure 4.1, from 1956 to 1966, defense spending accounted for 4.3 percent of the DPRK’s total budget and this number rose to 30 percent of total spending from 1967 to 1970 (Vreeland and Shin 1976, 37):

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180 In 1964, North Korea chose to distance itself from Mao and engage the Soviets due primarily to the economic consequences of poor relations with Moscow. The loss of Soviet military aid forced Kim to divert precious resources (both labor and materials) to North Korea’s defense industry and China’s aid was always insufficient to fill DPRK needs (Kun 1967, 48-49). Soviet diplomats also noted that North Korea became uncomfortable with “the negative consequences of their orientation only towards China” including Beijing’s alleged use of the DPRK to split the “international communist movement” (Borunkov and Gorovoi 1965). Finally, the Kim regime reoriented its focus of the “main enemy” of international communism from “modern revisionism” (a key aspect of Soviet post-Stalin Soviet policies) to imperialism and called for unified action from socialist states (Kun 1967, 56-57).

181 Kim had been asking for these systems at least as early as 1962 (Moskovsky 1962).

182 This formally marked another political “tilt” by the DPRK, this time towards the Soviets.

183 Kim Il-sung declared in 1961 that South Korea’s “broad masses of the people came to realize…that without the peaceful reunification of the country they could not free themselves from poverty, complete lack of rights, and colonial slavery” (KIS 1961, 137). He went on, “The only way for the South Korean people to completely free themselves from their present tragic situations is to drive out the U.S. army, overthrow the fascist dictatorship and reunify the country peacefully” (KIS 1961, 148). Kim seemed to imply initial armed conflict against the Americans from the peninsula to pave the way for “peaceful reunification” with the South. This policy of revolution in the South was often referred to as a “national salvation struggle” or “national liberation war” and was a major theme of Kim Il-sung beginning in September 1961 (Kim H. 1977, 211).
Kim’s national slogan for North Korea became “A Gun in One Hand and a Hammer or a Sickle in the Other!” (DPRK 2001, 228). In a 1965 speech in Indonesia, Kim also argued that the US used aid to oppress and “plunder” South Korea, and that “U.S. imperialism is the real ruler in South Korea” (KIS 1965, 240-241). Kim also accused the US of needing to occupy South Korea “as the logistical base for the occupation of the whole of Korea, as a bridgehead for hostile activities against the Soviet Union and the People’s Republic of China…[and] as an important strategic point for world domination” (KIS 1965, 244). North Korea continued to view the United States as the biggest obstacle for eventual reunification of the Korean peninsula and actively began to pursue a foreign policy directed at destabilizing the South and straining US-ROK relations in hopes of the retreat of US forces from the South. Yet there were other influential factors that influenced the Kim regime’s decision to pursue increased hostile foreign policy activities.

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184 Kim Il-sung noted that South Korea used US aid as a substantial part of its national budget and that the Americans controlled “45-50 percent of South Korea’s financial budget and 30 percent of its banking funds, and monopolize 70 to 80 percent of its raw materials supply and 80 percent of its import trade. Today the South Korean economy is tied up entirely to the United States; the financial and economic organizations and enterprises in South Korea are in a situation where they will have to stop operations the moment US imperialist ‘aid’ is cut off” (KIS 1965b, 240-241). Other sources reported that US economic and military aid in the early 1960s actually declined (from $529 million in 1960 to $309 million in 1965), and averaged about $438 million per year (USAID 1998, 55-56).
Beginning in the mid-1960s, North Korea’s military activities changed the overall security environment between the Koreas from an uneasy peace to an atmosphere of military confrontation. Kim Il-sung sought to destabilize the peninsula and set the conditions for reunification while the South’s Park Chung-hee also strove to counter North Korea’s actions and achieve security through economic growth. As a result, tensions were high on the peninsula as military confrontations on both sides of the DMZ resulted in hundreds of casualties and cross-border incursions became commonplace. For example in 1966, there were many instances of DPRK military attacks including bombings of a US barracks, seizure of an American reconnaissance naval vessel (USS Pueblo), a direct attack against the South Korean president’s residence, the shooting down of a US Navy reconnaissance aircraft, and hundreds of smaller confrontations. In fact, between 1965 and 1971, there were over 2,000 total casualties associated with North-South conflict (Finley 1984, 220).

Why did North Korea pursue intense levels of hostile foreign policy actions during this period when it was experiencing seemingly low levels of domestic distress? On the surface, Kim had little to gain by war with the South and the near consistent provocations that occurred could have brought the US (and potentially China) into another Korean War. Yet heightened levels of conflict did occur. The following questions help analyze the internal and external conditions that were present during this period of both conflict and prosperity for the DPRK.

**4.b.2. Structured Questions and Analysis**

In this section, I use a list of questions based on the variables described above to determine the relationship between conditions faced by the Kim regime, diversionary theory, and the incidence of hostile foreign policy activities. These “tests” of the case study constitute a structured, focused method to examine this case (Levy 1989, 284; George and Bennett 2005, 67; George 1979) and allow for comparisons with the other cases in this study. The following test

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185 The turmoil during this period has been analyzed by a few scholars including Bolger (1991), Michishita (2009, 1-51), and Park (2009). Additionally, recently opened archival and declassified information has provided important perspectives to this period such as the Wilson Center’s North Korea International Documentation Project (2012), which includes primary source information on diplomatic relations with North Korea by the Soviet Union, China, and a number of other former communist states as Hungary, Bulgaria, and the German Democratic Republic. The CIA’s Freedom of Information Act Site (CIA FOIA 2012), Foreign Relations of the United States (FRUS 2012), and Finley’s (1984) history of US Forces in Korea also provide in-depth analysis of DPRK and regional interactions from a US perspective during this period.

186 From 1965 to 1971, there were 1,129 ROK casualties (including 203 civilians), 270 US losses (including 82 sailors from the USS Pueblo that were later repatriated) and 815 North Korean soldiers killed, captured or wounded (Finley 1984, 119, 128, 130 and 220).
questions provide for a nuanced examination of the Kim regime and its environment during this period.

**Question 1.** What was the level of hostile foreign policy activities during this period?

This period saw North Korea’s emergence as a viable communist state and included the Kim regime’s shift towards a more militant foreign policy towards South Korea and the US. The events during this period were also the most intense levels of interstate conflict experienced on the peninsula since the Korean War. Figure 4.2 shows the level of conflict from 1960-1970, as recorded in the event database (described in Chapter 3) and scored using Azar’s (1993) intensity scale.187

Figure 4.2 Hostile Foreign Policy Activities 1960-1970

![Graph showing DPRK Hostile Foreign Policy Activities 1960-1970]

Source: Korea Conflict Database (Appendix C)

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187 Figure 4.2 shows the entire decade of the case study for historical comparison. See Chapter 3 for additional information on Azar’s (1993) scale and hostility score calculations.
As shown above, the conflict intensity levels during the first case study period (1963-1969) were 66 percent higher than historic norms during the entire study timeframe (1960-2011). Additionally, when compared to the rest of the decade, the end of the 1960s were characterized by a noticeable increase in DPRK hostile foreign policy actions. In the following sections, I provide descriptions of the most significant categories of HFP events during the case study.

**DMZ Confrontations.** Beginning in 1966, clashes along the DMZ between North Korean and ROK-US troops occurred regularly, and these were often brutal and intense engagements. The following narrative of the November 1966 ambush of US and ROK troops was typical of many of these firefights:

In the predawn darkness on 2 November, while the American president slept near Seoul under heavy guard, a KPA [North Korean People’s Army] squad tracked an eight-man patrol from Company A, 1-23 Infantry. The northerners, probably from the 17th Foot Reconnaissance Brigade, paralleled the oblivious American soldiers. Once the U.S. element reached a point about a kilometer south of the DMZ proper, the North Koreans estimated that the Americans had relaxed their vigilance. The Communist soldiers swung in ahead of the plodding American file, assumed hasty ambush positions, and engaged the Americans with hand grenades and submachine guns.

The U.S. squad disintegrated under a hail of bullets and grenade fragments. Despite later wishful stories of heroics, six Americans and a KATUSA [Korean soldier augmentee] went down almost instantly. A seventh American survived by playing dead. The KPA troops pumped a few more bursts into some of the corpses, plunged in a bayonet here and there, and disappeared into the night. One northerner might have been wounded in the one-sided fight. The sole American survivor ran for his life as soon as the attackers pulled out (Bolger 1991, 37-39).

These types of infantry engagements occurred repeatedly along the DMZ and those attributed to the North Koreans are well documented. Yet those initiated by ROK forces were rarely recorded in publically available literature, except for fleeting references in US intelligence memorandums (FRUS 1966b). Indeed, the ROK media was controlled by the South Korean government until the 1990s (Park 2009, 3) and the US had no interest in having the situation in Korea portrayed as being related to South Korean military activities (FRUS 1967a). During this case study, other more intense incidents also occurred, to include an attempt to kill South Korean

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188 Conflict intensity scores for the case study period (1963-1969) averaged 1222 per year while the scores for 1960-2011 were an average of 735 annually (Appendix C).
President Park, the seizure of a US naval intelligence ship and the downing of a US reconnaissance aircraft.

_The Blue House Raid._ In January 1968, the North Koreans crossed the DMZ during a commando operation intended to “destroy the ‘Blue House’ presidential mansion, and key members of the ROK government, most importantly, the ROK president” (EUSA 1968a). The operation began on 18 January 1968 as the DPRK team, dressed as South Korean soldiers, cut through the fence in the 2ID sector in the DMZ. The team encountered and detained four ROK civilian woodcutters, eventually releasing them.\(^{189}\) The civilians informed the ROK police and pursuit of the DPRK infiltrators began. After engagements with the ROK Army and national police, the South Korean stopped the commandos a mere 800 meters from the ROK Blue House and firefights continued until 31 January (EUSA 1968b; NYT 1968b). In the end, twenty-seven North Koreans were killed (one was captured and two were never found), thirty-eight South Koreans died and sixty-four were wounded (EUSA 1968b).\(^{190}\)

_USS Pueblo Seizure._ One week after the North Korean raiders infiltrated into South Korea, the DPRK fired upon and boarded the US intelligence ship, the USS Pueblo, and towed it to North Korea’s east coast port of Wonsan (CIA 1966b, 1).\(^{191}\) This ship was the US Navy’s first seaborne electronic surveillance vessel used on a mission against the North Koreans (HASC 1969, 1620). While some within the US government considered the mission risky,\(^ {192}\) the signals surveillance ship began its scheduled 17-day intelligence mission on January 11 (Gallery 1970, 153-154). On January 23, the Pueblo was initially shadowed, then fired upon by the North Koreans, and then boarded. One US service member died and the North Koreans detained the

\(^{189}\) The North Koreans held the civilians for five hours, provided them with propaganda items, “praised North Korean dictator Kim Il-sung, and boasted that Korea would be reunified in 1968,” threatened retaliation if the woodcutters reported their presence and one of the agents gave the civilians a watch to compensate for the “loss of a day’s work” (EUSA 1968b).

\(^{190}\) Bolger (1991, 62-65) provides a useful synopsis of the attack and an analysis of the effectiveness of ROK anti-infiltration efforts and noted that the incident had resulted in too many casualties, but the attack had been successfully stopped due to “DMZ enhancements” (which provided evidence of the infiltration) and ROK quick reaction force operations.

\(^{191}\) The USS Pueblo remained in North Korea as a tourist attraction and, as of this writing, possibly being refurbished for installation in a museum in Pyongyang (NK News 2013).

\(^{192}\) The US National Security Agency (NSA) sent a message to the Joint Chiefs of Staff (JCS) stating that the increased hostile attitude and actions of the North Korean regime possibly posed a danger to the Pueblo mission, although this was not brought to the attention of senior leaders or the crew prior to departure from Japan on 11 January (HASC 1969, 1623). Additionally, the USS Pueblo was never informed about the Blue House incident that occurred during its mission as the Seventh Fleet intelligence officers assumed that information would flow to the crew via routine intelligence reports (Armbrister 2004, 33).
remaining eighty-two crewmembers (US Embassy 1968a; FRUS 1968b; Bolger 1991, 65). Six hours later, the Pueblo found itself docked at the DPRK port of Wonsan (Mobley 2003, 41).\(^{193}\)

The timing of the USS Pueblo seizure might seem illogical as North Korea had managed to conduct extremely serious attacks against both the US and ROK in the span of a few days. Yet, these incidents were related to the Kim regime’s strategic goals. The CIA assessed that the seizure of the USS Pueblo was, among other things, a sort of “insurance policy” against ROK retaliation for the Blue House attack (CIA 1969a, 5). The CIA notes that

As the US became even more heavily engaged in Vietnam, Kim evidently decided that he could stage more risky provocations with relative impunity. The Blue House raid and the seizure of the Pueblo followed. The North Koreans clearly calculated that their possession of the Pueblo and its crew would exert an additional powerful deterrent against retaliatory action. Pyongyang took pains to draw attention to its leverage by threatening to try to punish the Pueblo crews (CIA 1969a, 4-5).

Additionally, Bolger (1991, 69) notes the timing of the Blue House raid and Pueblo seizure in relation to events in Southeast Asia: in Vietnam, the NVA attacks against Khe Sanh and the Tet Offensive also occurred during January 1968. Thus the Blue House and USS Pueblo attacks might have been Kim Il-sung’s contribution to the overall communist fight against the US “imperialists” and their allies, such as the “puppet” South Korean regime (US Embassy 1968a).\(^{194}\) In any case, these actions had wide-ranging effects on the ROK-US alliance.

When South Koreans compared the US response to North Korea’s attack on the Blue House with the response to the capture of the USS Pueblo, they noticed a significant difference. The US-led United Nations Command’s response to the Blue House raid was to call for a Military Armistice Committee meeting to criticize the incident while the USS Pueblo resulted in a US protest to the UN Security Council (FRUS 1968a). The USS Pueblo incident also spurred

\(^{193}\) Lerner (2002), Mobley (2003), and Armbister (2004) provide useful and in-depth narratives of the entire Pueblo incident. Additionally, the US House Armed Services Committee meeting reports (HASC 1969) include a detailed investigation of the incident and the lessons learned from the US government’s perspective.

\(^{194}\) As the US Ambassador noted, “NK leadership may well have felt that they could make no greater contribution to Communist cause and to their own purposes in Korea than to take bold actions designed to reduce support in ROK for augmented or even continued participation in Vietnam, to take advantage of current political difficulties of and to further reduce public confidence in Park government, and to shake mutual confidence between U.S. and ROK. Bold action could also, of course, create a diversion in Korean peninsula and force U.S. to divert military resources from Vietnam effort and stimulate additional domestic and overseas pressures against U.S. Asian policy” (US Embassy 1968a).
the deployment of a US naval carrier task group, led by the USS Enterprise and supported by the US Seventh Fleet, the movement of the Fifth Air Force to Osan (South Korea), the callup of over 14,000 Air Force and Navy reservists, and the deployment of almost 200 aircraft to South Korea and Japan as a show of force (Bolger 1991, 71-72; EUSA 1968a, 6). While the North Koreans stated that the seizure of the Pueblo was in response to “a provocative act directed at gathering intelligence” (Romanian Embassy 1968a), the US perspective was that the motivation for the seizure of the USS Pueblo was, among other things, also related to an effort to “harass the US in its conduct of the [Vietnam] war” (FRUS 1968c). The United States presented the Pueblo situation as a complaint to the UN Security Council, but no action resulted (UN 1968a). The North Koreans released the USS Pueblo crew in December 1968.

**EC-121 Shootdown.** Just four months later, two NKAF MiGs shot down a US Air Force EC-121 reconnaissance aircraft, killing all thirty-one crewmembers (ROK MND 1986, 76; Beecher 1969a). The US intelligence aircraft had been conducting signals surveillance and mapping North Korea’s modernized east coast air defense shield and radar sites (Mobley 2003, 99). For months, the US had conducted similar intelligence missions without incident and while North Korea had often scrambled aircraft in response (and previously attacked a US RB-47 on a similar mission four years earlier), there had been no current indications that the DPRK would undertake a lethal engagement (Mobley 2003, 100-103).

In response to the EC-121 incident, North Korea accused the US of violating its airspace both in its domestic press and in Armistice Commission negotiations five days after the downing (NYT 1969; CINCPAC 1970, 134). The immediate US reaction was to activate a task force of warships to the area, including six aircraft carriers and a battleship (Zagoria and Zagoria 1979, 38-39). While the shootdown resulted in a three-week cessation of reconnaissance flights and a

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195 This overwhelming US reaction to the Pueblo crisis and seemingly lower priority given to the Blue House attacks resulted in negative reactions by the South Korean public and its leaders. Bolger (1991, 70) notes that many in the South “urged Park to ‘go north’ – with or without the Americans.” There were reports of student demonstrations at the US embassy in Seoul that had to be dispersed by US soldiers firing weapons into the air as the South Koreans felt “that the United States was far more concerned over the humiliating loss of the Pueblo” than an attack against a sitting head of state (NYT 1968c). From South Korea’s view, the ROK fully supported the United States as a reliable ally, as demonstrated by the deployment of over 48,000 South Korean troops to fight in Vietnam. Thus the perceived lack of action by the US to this personal attack was alarming to the Park regime.

196 In discussions, the USSR noted that the captain himself (who was in North Korean captivity) admitted to entering the territorial waters of the DPRK and that the UN Security Council did not have the jurisdiction to act on matters involving territorial water violations (UN 1968a). Yet in diplomatic communications between the Soviet embassy and the North Koreans, the Soviets made it clear that they did not support DPRK efforts to “to hasten reunification through the use of force” (Romanian Embassy 1968b). Additionally, the official Security Council record included no mention of the Blue House attacks (UN 1968a).
flurry of US government meetings, the final response from the Nixon administration was to conduct a naval show of force with several aircraft carriers, publically denounce the attack, and to resume flights (Mobley 2003, 139; Bolger 1991, 101-107). On 28 April 1969, the US began moving its “show of force” naval fleet (Task Force 71) out of Korean waters (Lydons 1969). In an effort to decrease tensions, the Soviets made an effort to distance them from responsibility for the incident, provided on-site assistance to the US naval effort to find survivors, and offered condolences for the loss of personnel (CINCPAC 1970, 139). This event and the others described above demonstrate the intense level of conflict that occurred during this period. These types of spectacular events and the constant air of tension brought the peninsula closer to all-out conflict that any other time since the Korean War.

Question 2. Was political instability associated with heightened HFP activities? (Hypothesis 1)

Political instability during this period was low. Kim Il-sung reaffirmed his position as leader of the DPRK throughout the mid-1960s, both through non-violent purges in the North Korean leadership structure, active participation in domestic activities, and international actions such as the re-establishment of diplomatic and economic ties with the USSR and increased engagement with developing nations. Kim conducted political purges during the 1960s over policy failures including the removal of civilian party officials who were considered supporters of Chinese ideology (in 1966), others who opposed the “hawkish” strategy towards reunification (in 1967) and several military generals in 1968 after the attack against the South Korean presidential residence (DVO 1967; Nam 1974, 146-147). The North Korean leader also remained engaged with the public and used “on-the-spot guidance” visits to industrial sites, farms, and military units. These visits were intended to portray Kim as a “young and energetic

197 Military responses were considered, but none were undertaken (Mobley 2003, 139). The lack of military retaliation by the Nixon administration was seen by North Korea as proof that the US was a “paper tiger” and that the North Koreans “had nothing to fear” from the Americans (Kim I. 1975, 312). Nixon is reported to have considered an immediate air strike as a response, but was dissuaded by logistical problems (few US forces were in the area that were capable of an effective strike), recommendations by aids to find a diplomatic solution, and parallels to US actions in the Gulf of Tonkin in 1964 which included airstrikes against targets in North Vietnam and a widened American commitment to that war (Beecher 1969b)


199 The motivation for these political demotions differed significantly from those that occurred in the past. Previous purges were often based on power struggles while the ones during this time were due to policy disagreements and failures (Nam 1974, 146-147).
leader” and were an attempt to inspire and sustain the North’s expanding economic progress by focusing on the individual worksites and citizens (Suh 1988, 163-164).

The DPRK’s national capacity expanded throughout the 1960s as measured by the Correlates of War CINC (Composite Indicator of National Capabilities) index (CINC 2011). In this study, I use this index to measure the overall political stability of the Kim regime, as increased capacity provides North Korea an enhanced ability to maintain control over its population and thus increases the overall stability of the North Korean government. The following chart shows the overall CINC scores for North Korea during the 1960s with South Koreas added for comparison.

Figure 4.3 Composite Index of National Capacity Scores 1960-1970

![National Capacity Score Chart]

Source: CINC 2011

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200 This index provides a composite score based on defense personnel levels, military spending, population, iron and steel production and energy consumption (CINC 2011).
201 Other scholars have measured political instability based on mass and elite unrest in a given society. For example, Banks’ (2004) Cross-National Time-Series (CNTS) Data Archive has reporting on internal instability (including purges, strikes and riots) has been cited by a number of scholars as a measure of political unrest (Pickering and Kisangani 2005; Bell 2009; Tir 2010), although the CNTS contains only limited information on North Korean instability.
As shown in Figure 4.3, North Korea maintained and improved its national capacity levels throughout the decade.\textsuperscript{202} Fluctuations in 1965 were most likely related to stagnated military spending during that period and defense spending rose significantly beginning in 1966 (CINC 2011). This graduated increase in overall capacity during the 1960s provided Kim with the means to both maintain power and pursue hostile foreign policy activities.\textsuperscript{203}

Kim also sought to secure North Korea’s place in the international community through active engagement the Soviet Union. North Korea never completely severed its diplomatic contacts with the Soviets in the early 1960s and with the departure of Khrushchev in 1964, began efforts to improve their relationship with the USSR (Shimotomai 2011, 139-140).\textsuperscript{204} Relations began to improve and, in 1965, the Soviets and North Koreans agreed to resume military and economic cooperation. That same year, the USSR provided 150 million rubles (about 75 million US dollars) in military equipment and after personally thanking the Soviet Ambassador for the aid, Kim immediately asked for more military assistance (Kuznetsovv 1965). In 1966, the DPRK made efforts to change the nature of its dealings with the PRC based primarily on economic factors. The North’s economy was having trouble and the Kim regime needed Soviet capital to finance both its economic and military goals (Koh 1969, 953). To appease the Soviets, North Korea began to dampen contacts with the PRC, ceased cultural exchanges, limited diplomatic contacts, and stopped both the publishing of Chinese written materials and the radio broadcast of Chinese news programs (Soviet Embassy 1966).\textsuperscript{205} Kim understood that maintaining a productive relationship with the Soviet Union was essential to achieving his own foreign policy goals and was willing to dampen relations with the PRC to ensure Soviet aid remained intact.

This “balancing act”\textsuperscript{206} by Kim between the Soviets, who installed Kim as leader of the DPRK in 1948 and provided critical financial support, and the Chinese, who had saved North Korea from

\textsuperscript{202} South Korean gains in national capabilities were largely due to increases in defense spending beginning in 1966, and expanded industrial capacity due to increases iron and steel production and energy consumption throughout the decade (CINC 2011).
\textsuperscript{203} Of note, World Governance Indicators (WGI) are not discussed in this case as that index is only available beginning in the 1990s.
\textsuperscript{204} In fact, trade between the Soviets and North Koreans remained relatively steady despite tense relations (between 1961 and 1964) and ranged from $156 to $170 million per year (Carter 1972, 114-115).
\textsuperscript{205} Kim Il-sung was quoted in private conversations as referring to Mao’s Cultural Revolution as “incredible madness” and also made similar statements in closed KWP meetings (DVO 1967).
\textsuperscript{206} Shimotomai (2011) and Koh (1969) provide useful historical discussions on Kim Il-sung’s ability to maintain North Korea’s independence and generally cordial relations with both communist hegemons.
annihilation during the Korean War, served to solidify his political power in both the DPRK and the international community.

Finally, North Korea pursued international relations with less powerful states, such as those associated with the Non-Aligned Movement, an international forum for developing states. For example, between 1964 and 1967, Kim hosted visits by the leaders of a number of states such as Mali, the Congo, and Mauritania (Suh 1988, 224). Nam (1974, 147) comments that “the basic characteristics of the North Korean leadership – namely, the absolutism of Kim Il-song and the pervasive influence of his former partisans from Manchuria – remained the same.” Throughout this period, Kim Il-sung was clearly in control of North Korea and its domestic and international activities. Thus during this period, there was little overall political instability and domestic conditions allowed the Kim regime to pursue its foreign policy goals without significant resistance from the DPRK citizens or the ruling elite.

Question 3. Were economic difficulties associated with increased HFP? (Hypothesis 2)

Although the economy performed well during the first half of the 1960s, the onset of economic downturns coincided with an initiation of a period of heightened hostile foreign policy activities. This period began with North Korea’s economy showing indications of strength and robust expansion, yet beginning in 1966, the DPRK’s successes began to demonstrate the limits of command-directed economic systems. Yet North Korea’s economy did perform well enough for Kim to commit significant levels of resources to the defense sector and to support “military adventurism” beginning in the mid-1960s.

North Korea’s official industrial growth statistics were impressive and Kim Il-sung stated that between 1957 and 1970, North Korea’s industrial production increased at a rate of 19.1 percent per year (Kim 1972, 412). In 1957 alone, the North Koreans reported that industrial output had increased by 44 percent and that grain production (in excess of requirements) was 12 percent (DPRK 2001, 203). North Korea's reported GDP per person grew steadily throughout the 1960s, rising from an estimated $1,104 per person in 1960 to $1,954 in 1970 with growth

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207 “Non-aligned” nations generally included those involved with the Non-Aligned Movement (NAM). The NAM was initially established in 1955 in Indonesia and included 29 developing nations with the overall goal of “resisting the pressures of the major powers, maintaining their independence and opposing colonialism and neo-colonialism, especially western domination” (NAM 2012).
rates ranging from -1.0 to 12 percent per year (Maddison 2008). Additionally, North Korea’s trade levels also rose throughout the decade from $320 million per year in 1960 to $710 million per year in 1970 (COW 2011). At least on paper, North Korea’s economy was robust enough to support the redirection of funds in support of increased defense spending.

Yet Eberstadt (2007, 29-31) notes that while the DPRK’s per capita income steadily rose throughout the 1960s, “there is no reason to invest any great confidence in official DPRK claims about per capita national income or national output” due to inconsistencies in reporting methods and data. Additionally, North Korea experienced significant problems during this time with “unbalanced growth” (over-allocation of resources to heavy industry), inconsistent levels of assistance from the Soviet Union and China, poor harvests and production difficulties due to poor economic planning (Lee 1993, 13). By 1966, North Korea realized that its national goals were not being met, and Kim Il-sung commented, “industry and agriculture are not balanced” and called for “general equilibrium” in the North’s economic plan (KIS 1965, 256 and 274). These difficulties resulted in an extension of its ongoing economic plan by three years to 1970 and beginning at this time, North Korea ceased to report “detailed economic statistics to the outside world” (Lee 1993, 13).

During the latter half of the 1960s, North Korea’s command economy began to demonstrate signs of distress. Per capita income was reportedly double that of the South, although one analyst observes that “A North Korean has to work five or six times as long as a South Korean to earn enough money to buy a comparable item” (Trumbull 1967, 14). Further, the Kim regime’s economic priorities had shifted from domestic production to military defense. Due to the “military coup d’état” in South Korea in 1961, the North switched its economic focus in the 1960s towards defense and away from economic development, setting back the North Korean economy “at least 10 years” (Trumbull 1967, 14). By the mid-1960s, economic development slowed for North Korea as the result of the "diversion of resources to military

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208 Maddison’s (2008) data is reported in 1990 international dollars.
209 Additionally, the economic growth that North Korea did experience was directly related to external aid. The Kim regime was often able to obtain aid based on the competition between the Soviets and Chinese and those states’ efforts to establish strong alliances and shape the development of fledgling communist states such as the DPRK. Prybyla (1964, 468-469) notes that Sino-Soviet support to the communist regimes in Vietnam and Korea included loans, grants, industrial goods and equipment, training, and workers. Park (1984, 277) calculates that the Soviet Union and the PRC provided the majority of economic aid to North Korea (until the early 1970s) compared to other communist states and the rest of the world. From 1945 to 1980, total economic aid provided to North Korea was $2.76 billion (1984 rates), with the Soviets providing the majority (57.7 percent) followed by China (30.5 percent) (Park 1984, 275).
modernization,” cessation of aid from China and the Soviets, and "unrealistic economic planning" (CIA NIE 1972, 9-10). During the latter half of the 1960s, North Korea was spending 30 percent of its national income on defense (Axen and Matern 1967).

As shown in Figure 4.4, “economic expenses” (which were costs associated with domestic production) decreased significantly beginning in 1966 and military spending jumped 20 percent between 1966 and 1967 (Kim I. 1975, 288). By 1967, North Korea had only achieved 57 percent of its goals under its economic development plan initiated in 1960 (Trumbull 1967, 14). In discussions with the Soviet Embassy (1968), Kim Il-sung admitted that while industrial and agricultural production was meeting target goals, domestic construction was lagging behind other sectors. Energy production deficits were negatively affecting metal and chemical production (both were running at 50 percent as a result) and drought in the winter of 1967 and spring of 1968 cut wheat and barley production in half (Soviet Embassy 1968). It was at this same time when a significant increase in North Korea’s hostile foreign policy activities occurred. Between 1966 and 1967, North Korea’s hostile foreign policy events increased nine-

For more details on the Seven-Year Plan, see Chung (1972).
fold (from a score of 264 to 2328) in intensity between 1966 and 1967 and through the end of the decade, remained at their highest levels since the Korean War.

These difficulties resulted in efforts by the Kim regime to invigorate the economy through increased contacts with the international community for economic assistance. By the 1970s, North Korea began to purchase “turn-key” plants from both Japan and the West to increase industrial capabilities; these purchases and continued economic distress resulted in high external debt and marked the beginning of a sustained financial downturn (Savada 1993, 41). Chung (1972, 527) describes North Korea’s economic experiences during the 1960s as a “decade of mixed achievements and failures. For the first time since the inception of the North Korean regime, it experienced setbacks and slowdowns throughout the economy, a far cry from the days of unparalleled growth during the 1950's.” North Korea’s economy did support Kim’s efforts at sustained military activities against the South in the latter half of the decade; yet this reallocation of resources, as mentioned above, came at a high price. Overall, there was economic progress during this period and relative economic stability, but when difficulties did occur, there was also an increase in HFP activities.

Question 4. Was social instability associated with periods of increased HFP? (Hypothesis 3)

Social instability during this period was low and unrelated to HFP activities. By most accounts, North Korea was able to provide for its citizens’ needs. The North Korean public enjoyed more food availability (as compared to the ROK), better access to advanced medicine, higher levels of employment, and an overall quality of life that outpaced the South. During the 1960s, North Korean citizens reportedly benefited from heavily subsidized food rations and housing, free healthcare, an 8-hour workday, equal opportunity for both sexes, and no taxes (LOC 2007; Barrett 2011, 53; Fukushima 1975, 221, 245-246). One defector notes that during this time,

…even though it was difficult to have an easy and comfortable lifestyle, at least the rations came regularly – never delayed [sic]…There were actually goods made in North Korea that you could buy in the stores – clothing, material, underwear, candy [sic] (Martin 2006, 121).
The DPRK also made significant progress in other basic necessities, including electricity for 71 percent of its population by 1963 and by 1970, nearly all citizens had access to power (Cha 2012, 24). In addition, the DPRK instituted compulsory primary education in 1956 and by the mid-1960s, the DPRK had twice as many university students as the ROK (Kim I. 1975, 290-291). Food availability, which would become a devastating problem in the 1990s, was at levels similar to other states in the region. DPRK cereal (grain) availability per person outpaced both the ROK and PRC through 1968 and remained consistent throughout the rest of the period as shown in Figure 4.5.  

Figure 4.5 Yearly Cereal (Grain) Availability per Person (in metric tons)

Another measure of social stability, the levels of defectors, provides a proxy measure of the level of satisfaction citizens feel towards their society. While defections from North Korea to the South most likely happened during this period, they were most likely limited to only a handful each year and exact numbers are not available.  

Individual North Korean defections to the South were at low levels, with only a handful of persons fleeing each year. But those that were reported included a spectacular escape in 1967 by a North Korean journalist (who was later

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211 In 1967, the DPRK experienced problems with flooding (Soviet Embassy 1968), probably due to monsoon rains, and this potentially affected harvest levels in 1968.

212 South Korean government statistics on defectors are only published in aggregated form prior to 1989. This database shows that “prior to 1989,” 607 refugees from the DPRK entered South Korea (ROK MOU 2012a). Most likely, this means that between 1953 and 1989, the ROK documented 607 refugees fled the DPRK.
found to be a North Korean agent) through the Joint Security Area at Panmunjom and the

Alternatively, North Korea did experience an influx of repatriated Koreans who returned
from Japan and other locations during the early 1960s. While approximately 1.4 million Koreans
returned from Japan immediately after the end of World War II in 1945, over 600,000 remained
(in Japan) although they were denied Japanese citizenship and faced severe discrimination
(Creamer 2003, 14; Morris-Suzuki 2006, 305). For those willing to return to the DPRK, North
Korea offered free education, health care, jobs, and housing (Morris-Suzuki 2005, 372). Comparatively, the South Koreans offered “practically no assistance” for returnees from Japan
(Foster-Carter 1978, 147, quoting DeVos and Wetherall 1974, 15). As many as 75,000 ethnic
Koreans were repatriated from 1959 to 1962 as part of the Calcutta Agreement between the

The number of returnees slowed significantly by the mid-1960s and stopped completely between 1967 and
1971 due in part to Japanese government efforts to limit the activities of the Chosen Soren, a pro-
North Korean group of ethnic Koreans in Japan (Foster-Carter 1978, 148). Despite willing
repatriation to their ancestral home, most of the returnees found life in North Korea difficult and
often were persecuted in the DPRK as “distrusted as outsiders”: in fact, thousands “vanished into
prison camps, and of these, many were never heard from again” (Morris-Suzuki 2005, 259).

Indeed, North Korea solidified itself as a police state during this period. After Kim Il-
sung came to power, he immediately began to establish a “Stalinist” atmosphere in North Korea
(Martin 2006, 60) and in 1946, the DPRK formed the Ministry of People’s Security (MPS) to

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213 As (Morris-Suzuki 2005, 372 ) notes, the Koreans in Japan were “debarred by law from all forms of
public sector employment, including teaching in public schools and even the most menial local government jobs,
while careers in large companies were in effect closed, not by law but by entrenched tradition. The very limited
welfare that they could obtain was not a right but a ‘gift’ bestowed by administrative discretion…Now, suddenly
they were presented with the offer of cheap housing, guaranteed jobs and free welfare in [the DPRK] where they
would be full citizens. Pictures published by North Korea at the height of the repatriation movement contrasted the
spotless new apartments promised to returnees with the squalor of their slum dwellings in Japan.”

214 Ironically, there a few young American soldiers who defected to North Korea during the
1960s. Between 1961 and 1965, four US Army enlisted soldiers (all between 19 and 21 years old) defected to North
Korea including Charles Robert Jenkins, an American NCO who was released by North Korea in 2004 to reside in
Japan (UNC 2012; Brooke 2012). Jenkins reportedly crossed the DMZ and defected to the DPRK in order to “avoid
military service in Vietnam” (Brooke 2012).

215 The Chosen Soren was founded in 1955 by “overseas citizens of the DPRK” living in Japan and fully
supported both Kim Il-sung and North Korea’s policy for eventual reunification (Creamer 2003, 2).
provide internal security and protect the borders (Hyun 2004, 7). Beginning in 1958, efforts began to classify all North Korean citizens based on political loyalty and between 1967 and 1970, the population was divided into three overarching classes with fifty-one subordinate designations (Hassig and Oh 2009, 198 and KINU 2011b, 149). As part of this campaign, North Korea designated thousands as sectarians or anti-revolutionaries and these individuals were either executed “or sent to remote sites” (Gause 2012, 104). During the 1960s, the MPS reportedly sent 70,000 individuals to political prison camps and executed more than 6,000 North Korean citizens (KINU 2011b, 149).

Nevertheless, while the Kim regime was repressive and continued to refine its ability to control DPRK society, it did adequately provide for the welfare of North Korean citizens during this period. Yet this quality of life had a price, which included consistent pressure by the Kim regime to increase efficiency and production and prepare for “inevitable war with the South.” During the 1960s, North Korea provided food for its citizens on par with other East Asian states and DPRK citizens did receive the education and healthcare benefits promised by the Kim regime. Nevertheless, it was a bland and repressive atmosphere as choices for the consumer were limited, and as one analyst observes, “Everything is uniform. There is no poverty, but no prosperity either” (Trumbull 1967, 14). During this period, North Korean society was stable and Kim Il-sung’s extensive control allowed him to pursue domestic and internal policy goals. Concurrently, I find that there was no direct relationship between social instability and the level of HFP activities.

216 The MPS assumed the security duties of the departing Japanese military forces. While this organization went through some changes, namely subordination to the Department of Internal Affairs in the 1950s and subsequent re-emergence as an independent bureau in 1962, the MPS was tasked with internal security and policing throughout most of the 1960s (Hyun 2004, 10-12).

217 There were three primary class designations: the core, wavering or “basic,” and hostile or “complex” classes (Hassig and Oh 2009, 198; KINU 2011b, 219-221). The core class (28 percent of the population) included those loyal to the regime, the wavering or "basic" class (45 percent) consisted of those not in the core class, generally workers and low-level technicians and the hostile or "complex" class (27 percent) were those that were "branded enemies, impure elements, and reactionaries" (KINU 2011b, 219-221). This classification system remains in place today.
**Question 5.** Were UN resolutions against the DPRK associated with increased HFP? (Hypothesis 4)

From 1963 to 1969, the UN Security Council passed no resolutions on the Korea situation, but there was periodic discussion in both the Council and General Assembly on the future of the peninsula. After 1953 and throughout the 1960s, the United Nations General Assembly participated in an annual “ritual” of debating the future of the Koreas (Koh 1995, 31-32). These included the consideration of five topics on the Korean issue: invitations for both Koreas to participate in the discussion, the annual UN Commission on the Unification and Rehabilitation of Korea (UNCURK) report, the disbanding of the UNCURK, withdrawal of foreign military forces from the peninsula and the ending of discussion of the Korean question (Pak 2000, 52-53). North Korea objected to these debates in the UN General Assembly and demanded that “all parties” participate, including the DPRK (Kim H. 1977, 224-225). As Kim H. (1977, 225) notes, “the North Korean regime still utilized the world forum [UN] for its cause. Thus every year, the [DPRK] transmitted its unification formula to the United Nations.” As a result, North Korea ensured that the Korea question was consistently submitted the United Nation for debate, despite little hope of UN action on the issue.

In 1969 and 1970, UN supporters of North Korea submitted a draft resolution (which failed to pass) calling for the expulsion of foreign troops from the peninsula and the dissolution of the UNCURK which had been established in 1954 to facilitate the economic recovery of the peninsula after the Korean War (Koh 1995, 31). The UNCURK issued a yearly report (which was put before the General Assembly for approval) which detailed not only economic and political progress in South Korea, but also North Korean “provocations” and issues surrounding reunification (Pak 2000, 55). While these discussions occurred yearly, there were also at least two General Assembly resolutions that passed on the Korean issue, such as Resolutions 2516 and 2668 (enacted 1969 and 1970), both reaffirming UN objectives to establish a unified, democratic and peaceful Korea (UN 1969 and UN 1970). Both North and South Korea viewed reunification as something that had to occur under either a communist or Western democratic system, but not

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218 This was the same proposal that the DPRK consistently used in discussions with the ROK and included removal of US forces, reduction of armed forces to 100,000 on each side, an international conference to discuss solutions, and direct DPRK-ROK negotiations (Kim 1977, 225).

219 The UN established this organization in 1950 (and disbanded it in 1973) with the purpose of oversight of “relief and rehabilitation in Korea, as determined by the [General] Assembly in accordance with the [UN] Economic and Social Council” (Pak 2000, 7).
both, thus stifling any hope of a negotiated solution under the purview of the United Nations. Thus the effects of UN Security Council resolutions on hostilities are difficult to measure (because there were no actual UNCR resolutions passed), yet the UN’s forum allowed for debate on issues surrounding the ongoing division between the Koreas. Likewise, there was no discernible relationship between these UN activities and the levels of North Korean hostile foreign policy actions.

**Question 6. Were ROK leadership changes associated with increased North Korean hostile foreign policy activities? (Hypothesis 5)**

During this period, another external influence, national elections, were associated with HFP activities. After assuming control of South Korea by coup in 1961, Park Chung-hee shed his military uniform, ran for president in democratic elections, and narrowly won presidency in South Korea in both 1963 and 1967 (Savada and Shaw 1990, 39). Park then pushed through constitutional change allowing for a third term and narrowly won against his liberal political foe, Kim Dae-jung, in 1971 (Durkin 1972).

Few North Korean incidents of note occurred during Park’s election in 1963, but an intense spike in DPRK hostile foreign policy activity coincided with Park’s reelection bid in 1967 (see Figure 4.2). North Korea’s activities during Park’s campaign and election demonstrated a significant shift towards military action against the ROK and US forces in South Korea. In fact, North Korean activity began in earnest in March 1967 and by mid-year, the US government reported over 300 DMZ incidents (ranging from non-violent confrontations to firefights) – a six-fold jump compared to previous years – and significant increases in the infiltration of DPRK agents in rear areas of South Korea for guerilla and sabotage missions (CIA NIE 1967, 2). Additionally, between Park’s party nomination in February 1967 and his election in May 1967, military incidents included infiltration attempts, ambushes, the sinking of a DPRK naval vessel, and a six-hour small arms and artillery engagement between dozens of troops on both sides of the DMZ (Finley 1984, UNC 2012). Non-military hostile actions by the North Koreans included pronouncements against US actions in Vietnam, South Korean activities, and DMZ incidents. Thus during this period, the reelection of South Korea’s Park Chung-hee in 1967 did occur in conjunction with a significant increase in conflict on the peninsula.

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220 Kim ran for election in 1963 after pressure from the Kennedy to transition his government to a representative democracy (FRUS 1961b; Oberdorfer 1997, 32).
**Question 7.** Were US leadership changes associated with increased North Korean hostile foreign policy activities? (Hypothesis 6)

North Korea’s hostile foreign policy activity levels varied during the US election periods, but showed noticeable increases during the 1968 presidential election timeframe. The US administration underwent three leadership changes during the case study period: Lyndon B. Johnson’s assumption of the presidency after Kennedy’s assassination in 1963; Johnson’s election in 1964; and Richard Nixon’s selection as US president in 1968. The installation of Vice President Johnson as the US leader in December 1963 occurred at a time when conflict between the Koreas was at a relatively low level (see Figure 4.2). Although there were a few military confrontations between North Korea and US-ROK forces in 1963, there was no discernible relationship between Johnson’s assumption of the presidency of the United States and hostile foreign policy actions on the peninsula. There was no significant change in North Korean activities during Lyndon Johnson’s campaign and subsequent election in 1964.

Four years later, conflict on the Korean peninsula was at unprecedented levels. North Korea’s actions between the US political party conventions in August 1968 and national elections in November included at least 12 firefights along the DMZ with a total of 30 US and ROK casualties (killed and wounded) and 31 North Korean casualties (Bolger 1991, 138-139; ROK MND 1986, 107-108). Other hostile foreign policy actions included diplomatic pronouncements criticizing US policy in Laos and Okinawa and negative statements concerning US actions along the DMZ. There was little mention of the US presidential contenders (Nixon and Humphrey) in North Korea’s press until after Nixon won by a slim margin. After that, the DPRK government described him as a “notorious war maniac” who would continue “pursuing vicious and shame-less aggression” (NYT 1968a). In retrospect, Kim Il-sung might have felt that the Democrats and Humphrey could offer a “better deal” for the Communists than Richard Nixon and similar views were held by the Soviets and North Vietnamese (Small 2004, 526).

The increased HFP activity during the final months of the US presidential election might have been related to DPRK efforts to demonstrate that instability on the peninsula required the

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221 Military confrontations during 1963 occurred primarily between May and August and included the downing of a US helicopter and the capture of its crew, the shootdown of a small US transport plane (killing six), and the deaths of three US soldiers in a DMZ firefight (Finley 1984, 113). South Korea’s CIA chief attributed these attacks as North Korean responses to the killing of nine DPRK agents in South Korea (Finley 1984, 113).
attention of both the ROK and US governments. While this was not an effort to open a “second front” for the Vietnam War against the United States (FRUS 1966b; Borunkov 1966), Kim hoped to weaken the resolve of the South Korean’s government and its decision to send troops overseas while a significant threat existed on the Korean peninsula (Porter 1966). Distracting the US effort in Vietnam provided assistance to the international communists’ struggle against “imperialist” nations and, as the North Korean ambassador to the USSR noted, “keeping tensions high along the demarcation line is a kind of help for the Vietnamese people, because it is distracting a part of the US forces from Vietnam” (Podgorny 1967). During this time, North Korean hostile foreign policy actions aimed to disparage US operations against communist forces in Vietnam and to negatively affect the ROK-US alliance.

Nixon’s election in November 1968 came at the height of increased hostilities between the DPRK and the ROK-US alliance and at the same time, North Korea still held the 82-member crew of the USS Pueblo. In fact, the 1968 election might have spurred North Korea to release the USS Pueblo’s crew prior Nixon’s assumption of office in January 1969 (Mobley 2003, 88). While it is difficult to determine if North Korea’s increased hostilities during the late 1960s were associated with US presidential elections, there was an undeniable increase in DPRK hostile actions during the 1968 US campaign and general election compared to previous changes in US leadership.

**Question 8.** Were ROK/US strategic-level military exercises associated with increased hostile foreign policy activities? (Hypothesis 7)

ROK/US strategic military exercises often coincided with changes in North Korea’s hostile foreign policy activities. During some exercises, DPRK activity increased, while during others, HFP remained unchanged. The DPRK often framed its responses in the context of the threat posed by the United States and its regional alliances. The United States maintained a substantial presence in the region, not only in Korea, but also with military bases spread throughout Japan. US troop levels in Korea during this time averaged between 50,000 and 60,000 personnel while the US assigned over 80,000 service members annually to Japan and

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222 During negotiations, the outgoing Johnson administration emphasized to the North Koreans that they would not get a better “deal” from the Nixon administration and the US offered to sign a letter that included a “qualified” apology (Mobley 2003, 88-89). The US signed the statement and the crewmembers of the USS Pueblo were released by North Korea on December 23, 1968 (Lerner 2002, 212-214).
Okinawa (US DOD 2011c). The US also stationed a robust air, naval and nuclear posture in the region. Between 1966 and 1970, the US maintained between 80 and 120 combat aircraft, including F-5 jet fighters and at least two squadrons of advanced F-4s; the ROK’s aircraft inventory included 11 squadrons with a mix of Korean War-era F-86s and the more modern F-5s (Beecher 1970). While there was limited US naval presence on the peninsula, the US stationed its Seventh Fleet in nearby Japan. US ships from the Seventh Fleet base at Yokosuka were used as a deterrent to rising tensions between China and Taiwan in 1955 and 1958 (Whiting 2001, 108) and routinely patrolled the Taiwan Strait (Marolda 2012, 84). The US Navy was also active as a deterrent to Vietnamese activity and instability in Laos and South Vietnam (1961), carried marines for deployments to Thailand (1962) and after the South Vietnam Gulf of Tonkin incident (1964), the Seventh Fleet became an active combatant in Southeast Asia (Marolda 2012).

Along with a permanent US presence in the region and significant aid packages, the US and ROK conducted both command post and field training events throughout the period. Although a number of small-scale annual military exercises occurred each year, the late 1960s saw an increase in the number and scope of larger, strategic-level exercises based on the defense of South Korea. The most significant of these was a ROK-US command post exercise (CPX), dubbed “FOCUS LENS,” which began in 1968 and was conducted throughout this period, was designed to test plans for the defense of Korea (CINCPAC 1970, 158). The FOCUS LENS exercise, scheduled for March 1968, was postponed due to the Blue House attacks and Pueblo crisis but occurred in October 1968 and was “based on a general attack from the north” (Finley 1968, 125 and CINCPAC 1969, 151). This was followed in March 1969 by an exercise designated “FOCUS RETINA,” which included 7,000 total troops and the paradrop of a brigade of soldiers from the US-based 82nd Airborne Division to “scatter a mythical aggressor” near the Han river (Bolger 1991, 99-101 and CINCPAC 1970, 158). During this exercise, the US moved 2,500 troops from US state-side bases to Korea (8,500 miles) in 31 hours (Finley 1984, 129),

223 These included both command post exercises (CPXs) focused on training headquarters and their staffs and field training exercises (FTXs) that included deployments of ROK-US troops to on-peninsula location to exercise combined war plans. For example in 1962, US and ROK defense forces participated in seven exercises (four CPXs, three FTXs and one amphibious landing exercise) (CINCPAC 1963, 136).
224 This exercise still occurs, now designated “ULCHI FREEDOM GUARDIAN,” and remains focused on “strengthening the readiness of Republic of Korea and U.S. forces” (USFK 2012).
225 Beginning in 1968, Focus Lens (or a similar exercise) occurred annually in the fall.
demonstrating its response capability in the event of hostilities with the North. In October 1969, the annual FOCUS LENS exercise occurred in October 1969 (and each fall thereafter) and all headquarters at the division level (and air force and naval equivalents) took part (CINCPAC 1970, 158). These types of exercises raised tensions on the Korean peninsula and the consistent North Korean reaction was to declare that the peninsula was on the “brink of war” (NYT 1967c). In published speeches, Kim Il-sung mentioned these exercises and others conducted by the US its regional allies (KIS 1976, 96 and 272).

The levels of North Korean hostilities during these exercises were mixed with increases in hostile foreign policy actions generally during October of each year (especially in 1968 and 1969), but no increases (compared to adjacent months) each year in the months of February and March (KINU 2011; Finley 1984; UNC 2012). Thus, there was an increase in hostilities for some, but not all of the strategic exercises during this period. Another key relationship identified was that the North Korean downing of an EC-121 US intelligence aircraft in April 1969 was possibly a response to the FOCUS RETINA exercise, based on the timing of the shooting down and North Korean rhetoric at the time (Zangoria and Zangoria 1979, 9-34 to 9-35). While these strategic exercises did help maintain tension between the North and South throughout this period, ROK-US joint military operations in Vietnam were much more influential in North Korean decisions to use force on the Korean peninsula. These exercises and the continued presence of American troops on the peninsula were a stark reminder to North Korea of the continued military alliance between the United States and South Korea. At the same time, there were changes in DPRK hostile foreign policy activities during exercise periods.

**Question 9.** Was the presence of a conservative ROK government associated with increased HFP? (Hypothesis 8)

Park Chung-hee’s conservative and staunch anti-communist foreign policy most likely increased the level of North Korean hostile foreign policy events during this period. While future ROK administrations (to include those in the 2000s) generally shunned direct military responses to DPRK actions, the Park administration was, at least in the 1960s, determined to

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226 Ironically, this worried the South Koreans as well, as it signaled that the US was testing its ability to support the ROK during hostilities using means that did not require a permanent troop presence on the Korean peninsula (Shabecoff 1969).

227 Additional details on the EC-121 incident are provided in the “Divergent Outcomes” section below.
respond directly to North Korean security threats. In the early 1960s, the Park regime first acquired the economic means to increase its defensive posture (through economic success) and then began to actively counter the DPRK’s hostile actions by the end of the decade. Yet while the Park administration had tense relationship with the DPRK throughout this period, it did not pursue the same political objectives in regards to North Korea as previous leaders, such as Syngman Rhee. Rhee’s 1950s slogan of “March north and unify!” was replaced by the Park regime’s call in the early 1960s for “Unification after Construction” (Kim H. 1977, 176, 197). Park’s assumption of power in May 1961 solidified South Korea’s emphasis on priorities other than reunification.228 His initial priorities were focused on “national reconstruction” which rested on policies (or “prerequisites”) of economic progress and anti-communism (Kim 2004, 71). Park’s prioritized goals for South Korea in the 1960s included economic prosperity at the top of the list, followed by national security, efforts to reconstruct “genuine democracy,” and finally reunification (Kim, YJ 2011, 98).

Park Chung-hee gradually established his control over the ROK and by 1965, he was “firmly anti-Communist…[and] in a position of unchallenged authority in Seoul and appears to have the support, or at least acquiescence, of a majority of the population” (CIA NIE 1967, 5). It was at this same time that defense spending on both sides of the DMZ began to increase substantially, followed by a significant increase in tensions and military activities. Compared to North Korea’s more technologically advanced but smaller military (370,000 troops), South Korea maintained a much larger force (600,000 personnel) (CINC 2012). While the DPRK had mutual defense treaties with both the USSR and China, the US presence on the peninsula (and defense treaty with the ROK) ensured that any conflict between the Koreas would quickly involve both sides of the ongoing Cold War conflict.

South Korea’s economic success229 and the military aid obtained from the United States enabled the conservative Park regime to effectively counter North Korean military activities.230

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228 Although the Soviets charged that the US may have instigated the coup (NYT 1961), Joungwon Kim (1975a, 226) argues that the initial reaction by the US was to demand a return to the previous “lawful government authorities” rather than to support the new government. Kim (1975a) referenced statements made by the Chief of the UN Command’s public statement that called “upon all military personnel in his Command to support the duly recognized Government of the ROK headed by Prime Minister Chang Myon [and he] expects that the Chiefs of the Korean Armed Forces will use their authority and influence to see that control is immediately turned back to the government authorities and that order is restored in the armed forces” (FRUS 1961).

229 By the 1970s, industrial production was reportedly growing 25 percent annually (Savada and Shaw 1990, 143). The CIA notes that by 1965, it was actually South Korea’s economy that was stronger compared to
This was a response to developments on the peninsula as infiltrations and armed incursions increased and were intended to “test the effectiveness and reaction of South Korean forces deployed along the DMZ as well as to undermine troop morale” (FRUS 1966b). In October 1966, The North Koreans began more intense operations and conducted seven “surprise attacks” against South Korean forces (FRUS 1966b). Despite US objections, ROK troops responded by crossing the DMZ and killing or wounding as many as 30 North Koreans (FRUS 1966c and CIA NIE 1967, 2).

The United Nations Command considered this an Armistice violation, while the South Korean generals felt that the raid was justified and that the US “paid too little attention to ROK casualties” (Bolger 1991, 36). The South Korean position was articulated by Park Chung-hee in 1967 as he stated,

> Whenever the North Koreans violate the military demarcation line...all the United Nations Command has done so far is to table the complaint at Panmunjom, where the North Koreans categorically deny it. For the last 14 years, the United Nations Command has abided by the armistice while the North Korean side has ignored it... whenever the North Koreans violate the armistice they must be made to pay by retaliation (FRUS 1967a).

This raid and other ROK activities that followed were disconcerting to US leaders who reminded Park that “such actions undercut the ROK's position at the UN, provided fodder for North Korean propaganda, undercut General Bonesteel's authority, and jeopardized U.S. Congressional support for military assistance to Korea” (FRUS 1967a). The Park government considered North Korea’s actions along the DMZ as a direct threat to South Korea’s security while the US, with its increasing commitment to Vietnam, had no interest in heightened tensions and military clashes with the DPRK (Hungarian Embassy 1967). Throughout the 1960s, the

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230 Economic and military aid of $400-$450 million per year (USG 1998, 56) from the United States did provide stability and support to the Park regime between 1960 and 1965.

231 The UN Commander, US General Charles Bonesteel, heard rumors concerning a planned ROK response (a retaliatory combat raid) and met with the ROK Minister of National Defense in efforts to dissuade this action (Sarantakes 2000, 441). Bonesteel reminded him that an attack against North Korea “could have severe and unintended political and diplomatic impact on the pending visit of President Lyndon B. Johnson to the peninsula and a scheduled UN General Assembly debate on Korea” (Sarantakes 2000, 441).

232 Very little information is available on other ROK military actions, but these activities by the South Korean defense forces happened often enough to warrant the attention of both USFK and the US Congress (FRUS 1967a).
conservative Park government continued these types of activities to counter North Korea’s increased level of military confrontations, resulting heightened levels of DPRK hostile actions.

4.b.3. Summary and Case Study Conclusions

Throughout the 1960s, Kim Il-sung solidified his grip on power over North Korean society, built the DPRK’s economy and enhanced its military capabilities, and established a legitimate and stable communist state. North Korea’s foreign policy activities evolved from an emphasis on diplomatic solutions to the division of Korea to active military measures intended to cause the downfall of the Park government. Kim’s efforts to destabilize the South Korean government failed and the South Korean government remained intact. Nevertheless, the hostile actions by the North Koreans forecasted the DPRK’s future patterns of relations with the rest of the international community and the Kim regime’s unique ability to conduct sustained provocations, with little regard to the potential reactions of either South Korea or the US.

Table 4.2 Structured Analysis Results: Regional Power (1963-1969)

<table>
<thead>
<tr>
<th>Category</th>
<th>Question</th>
<th>Test Result</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent Variable (HFP)</td>
<td>1. What was the level of hostile foreign policy during the case study?</td>
<td>High</td>
<td>Conflict scores were higher than historical averages and averaged 1222 each year.</td>
</tr>
<tr>
<td>Internal Conditions</td>
<td>2. Was political instability associated with heightened HFP activities? (H1)</td>
<td>No</td>
<td>There was low political instability during this period.</td>
</tr>
<tr>
<td>Independent Variables (Proposition 1)</td>
<td>3. Were economic difficulties associated with increased HFP? (H2)</td>
<td>Yes</td>
<td>Although the DPRK did make economic gains, as downturns began, HFP increased.</td>
</tr>
<tr>
<td></td>
<td>4. Was social instability associated with periods of increased HFP? (H3)</td>
<td>No</td>
<td>Social instability during this period was low and unrelated to HFP activities.</td>
</tr>
<tr>
<td>External Conditions</td>
<td>5. Were UN resolutions against the DPRK associated with increased HFP? (H4)</td>
<td>n/a</td>
<td>No Security Council resolutions were enacted during this period.</td>
</tr>
<tr>
<td>Independent Variables (Proposition 2)</td>
<td>6. Were ROK leadership changes associated with increased HFP actions? (H5)</td>
<td>Yes</td>
<td>National elections during this period were associated with HFP activities.</td>
</tr>
</tbody>
</table>

233 The average hostile foreign policy yearly conflict score between 1960 and 2011 was 735 (Appendix C).
In Table 4.2, I summarize the structured, focused analysis of the relationship between the incidence of hostile foreign policy activities, conditions faced by the Kim regime, and alternate explanations. This period saw significantly higher levels of North Korean hostile foreign policy activities compared to historical averages (see Figure 4.2). In fact, the conflict levels between the Koreas in the 1960s were at the highest level found between 1960 and 2011. Additionally, although there was evidence of an increase in hostilities in conjunction with a slowing of the North Korean economy, this was an overall period of internal stability for the DPRK. Thus while there is evidence of a relationship between economic instability and the beginnings of heightened levels of HFP activities in support of P1, the overall political, social, and economic internal stability of the DPRK during the entire case study period shows the opposite. From an overall viewpoint, the stability enjoyed by the DPRK during this period, along with heightened levels of HFP activities, does not support the contention that diversionary activity (as defined in the operationalization of the dependent variable) occurred. Thus, while the Kim regime pursued activities focused on uniting the population against an external foe, an analysis of the individual conditions generally does not support the argument proposed by diversionary theory or P1. Alternatively, the external conditions faced by the regime do provide some support to P2 as ROK elections, and the conservative, anti-communist nature of the Park administration were related to increases in DPRK hostilities.

The relationship between hostile activities and South Korea’s conservative administration was as expected as Park pursued an increasingly harder line (especially during the latter half of the 1960s) towards the DPRK as tensions on the peninsula increased. Additionally, North Korea enjoyed significant support from the Communist Bloc because of Cold War alliances and the overall foreign policy objectives of both Moscow and Beijing. These Cold War relationships
provided the Kim regime with the military and economic support to pursue North Korea’s policy goals. Yet there are important findings in the relationships that were not found: for example, North Korean hostile foreign policy activities were did not increase consistently with strategic military exercises and US leadership changes had little effect on DPRK hostile activity levels. The Kim regime used hostile foreign policy events and external threats in attempts to solidify domestic support for national priorities and to a limited extent, potentially attempted to divert public attention away from economic difficulties.

The Kim regime based its decision to shift tactics towards more violent actions against South Korea and the US on a variety of factors. These factors included DPRK concerns about its economy, the policy decision by the Kim regime that South Korea was ready for revolution, the opportunities afforded by US involvement in Vietnam, and the evolving regional security situation faced by North Korea. The Kim regime was also contending with the complications of dedicating nearly one-third of its national income to defense programs, its desire to be a viable and influential communist state, and the need for continued economic and military aid from its allies. By the mid-1960s, conditions in the South were continuing to improve and the possibility of a ROK revolution (in support of the communists) seemed to be slipping away. Thus, the pursuit of external “adventures” by the Kim regime was a logical response for the DPRK in hopes of supporting reunification efforts and in hopes of bolstering its position at home (Michishita 2010, 31).

The Kim regime followed a political course similar to the Soviets as it embraced both ideological and practical means to vilify threats the DPRK’s communist system and to maintain Kim Il-sung’s grip on power over the DPRK. Through the establishment of a domestic environment that included a sustained threat of war with the ROK-US alliance, the Kim regime

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234 The DPRK always issued provocative statements during these exercise periods, but the intensity of military conflict during exercises did not vary consistently during the 1960s (KINU 2011; Finley 1984).

235 This is consistent with Lerner’s (2010) contention that North Korean actions during the mid-1960s were linked to diversionary behavior. Through an in-depth analysis of the diplomatic communications records of communist embassies in Pyongyang, Lerner (2010, 44-45) argues that the Kim regime was focused on furthering the concept of juche while simultaneously using a constant state of tension to “further his political agenda at home.” Lerner’s (2010) archival analysis provides some of the best information on the motivations of the Kim regime's activities from the perspective of those stationed in the DPRK. The examination of similar communications during the other two case study periods (diplomatic communications in Pyongyang throughout the 1990s and in the late 2000s) might hold similarly revealing insights into Kim regime actions, although that information is not currently available.

236 Kennan’s (1946) “Long Telegram” proposed that the Soviets made full use of Marxist-Leninist ideology “because it offered them an external threat in capitalism that could be used to validate their repressive regime” (Lerner 2010, 47).
managed to keep its population both on edge and under control (Hungarian Embassy 1963 and NYT 1967c). Thus, the North Korean regime was able to use the specter of a rising threat posed by South Korea, as the impetus to rally the North Korean population. Additionally, the sustained focus on the US as the enemy of the Korean people (KIS 1972, 198) and references to the rise of Japanese militarism (Romanian Embassy 1971) were clear attempts by the Kim regime to keep North Korea’s citizens focused on external threats.

The existence of a successful South Korean government was disconcerting to the Kim regime: Park Chung-hee was enjoying economic progress and international political prestige reflected negatively on the DPRK’s claim of establishing “legitimate” socialist system (Kim I. 1975, 287). Thus, North Korea’s efforts to destabilize the South hinged on heightened guerilla warfare and attacks against the perceived core of South Korea’s success: the ROK President. The DPRK hoped that the 1968 Blue House raid, if successful, would “reduce South Korea to leaderless chaos, and thus set in motion a social revolution that would pave the way for unification under his regime…” (Martin 2006, 127). While North Korea’s attacks against the South failed to cause the instability sought by the Kim regime, they did prove that the Johnson and Nixon administrations were unwilling to respond in kind to provocations against the ROK-US military alliance. The lack of an American military response to both the USS Pueblo capture and EC-121 downing and the US ability to block ROK retaliation for the Blue House raid set a precedent for future reactions to similar DPRK activities: US reactions to spectacular attacks would primarily involve diplomacy, rather than military retaliation.

North Korea’s other behaviors were based on Kim’s desire to maintain power and reactions to international conditions, which supports P2 and arguments surrounding external influences. The Kim regime maintained domestic tension by using the threat of the US and South Korean invasion to maintain the public’s focus on regime goals (CIA 1969a, 8; Zagoria and Zagoria 1979, 49). Additional efforts to malign increasing ties between Japan and South Korea (Romanian Embassy 1971) also served similar purposes in attempts to keep the North Korean population focused on external threats. Whether or not the Kim regime was actually successful in distracting DPRK citizens from internal concerns is difficult to determine, but in any case, there is substantial evidence (as discussed above) that the North Korean leaders did intend to use external threats in an effort to affect domestic attitudes.
Finally, one of the most significant findings is that while lower levels of hostilities were *expected* during this period (because of relative domestic stability), in fact, high levels of HFP occurred. This lends support to arguments against the applicability of the diversionary hypothesis (which hinges on domestic distress) in this case. Yet at the same time, efforts to focus public attention on external threats did occur in tandem with North Korea’s establishment of a police state (as discussed above). These policies allowed the Kim regime to continue to pursue foreign policy goals with public support (at least on the surface). Thus, while the overarching relationship between the individual conditions faced by North Korea and its propensity for conflict provides little support for P1, a more nuanced examination reveals that some evidence of diversion-style behavior is present. Finally, this period also saw the DPRK’s use of brinksmanship tactics and the Kim regime’s realization that provocative actions usually resulted in muted responses from the ROK and US. In the future, these responses often became economic concessions, as will become clear in the next case study.
Figure 4.6 Timeline: North Korean and US Events 1963-1971

<table>
<thead>
<tr>
<th>North Korean Events</th>
<th>US-ROK Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>DPRK begins to “lean” towards China</td>
<td>1963 US President Kennedy assassinated</td>
</tr>
<tr>
<td>Soviet-DPRK relations deteriorate</td>
<td>Johnson becomes US President</td>
</tr>
<tr>
<td>DPRK-Soviet relations improve</td>
<td>Johnson elected as US President</td>
</tr>
<tr>
<td>DPRK obtains military aid from USSR</td>
<td>1965 US deploys combat troops to Vietnam</td>
</tr>
<tr>
<td>Heightened DPRK military activities</td>
<td>1966 ROK deploys troops to Vietnam</td>
</tr>
<tr>
<td>North Korea’s defense spending at 30% of budget</td>
<td>1966 ROK President Park reelected</td>
</tr>
<tr>
<td>DPRK deploys MiGs to Vietnam</td>
<td>1967 President Johnson visits ROK</td>
</tr>
<tr>
<td>ROK navy vessel sunk</td>
<td>1968 US commitment to Vietnam peaks</td>
</tr>
<tr>
<td>Intense combat along DMZ</td>
<td>Richard Nixon elected US President</td>
</tr>
<tr>
<td>Commando attack against Blue House</td>
<td>1969 US-ROK FOCUS RETINA exercise</td>
</tr>
<tr>
<td>USS Pueblo seized</td>
<td>1970 US withdraws 20,000 troops from ROK</td>
</tr>
<tr>
<td>USS Pueblo crew released</td>
<td>ROK withdraws troops from Vietnam</td>
</tr>
<tr>
<td>US reconnaissance aircraft shot down</td>
<td>1971 ROK President Park reelected</td>
</tr>
<tr>
<td>Large scale military exercises</td>
<td>ROK President Park reelected</td>
</tr>
<tr>
<td>Tensions along the DMZ decrease</td>
<td></td>
</tr>
<tr>
<td>US withdraws 20,000 troops from ROK</td>
<td></td>
</tr>
<tr>
<td>ROK withdraws troops from Vietnam</td>
<td></td>
</tr>
<tr>
<td>ROK President Park reelected</td>
<td></td>
</tr>
</tbody>
</table>

If catastrophic famine does occur, it will be due to political decisions made in Pyongyang, not shortages of food.

*Noland (1997)*

In this chapter, I analyze the relationship between the internal and external conditions North Korea experienced from 1993 to 1999 and hostile foreign policy levels. From 1993 to 1999, the Kim regime endured one of the most catastrophic events in recent history: a famine that resulted in up to 2.5 million deaths (Natsios 1999, 7-8), representing approximately 11% of North Korea’s population at the time. Diversionary theory suggests that leaders seek external uses of force to distract public attention from domestic distress (such as famine). The low levels of overall conflict during this case study and the concurrent presence of significant domestic distress conditions stand in contrast to the predictions made by both Proposition 1 and diversionary theory. Diversionary theory suggests that external conflict should have increased significantly during the famine, yet the overall levels of HFP during this period were well below historic averages. This period did include significant conflict and diversionary-type activities by the Kim regime such as its initiation of nuclear and missile programs. These were both attempts to gain concessions from the international community and, to a lesser extent, distract its citizens. Alternatively, an analysis of the individual external influences faced by the Kim regime generally provides support for the second proposition (P2). External conditions, such as ROK elections and strategic military exercises influenced North Korea’s propensity to conduct hostile foreign policy (HFP) activities.

I selected North Korea’s famine as a case study based on the overall “political shock” (Goertz and Diehl 1995, 31; Figure 3.1) of this event and its profound impact on North Korea’s socialist society and its relationship with the international community. Aside from the extreme death toll, the famine caused DPRK citizens to become disillusioned with the Kim regime and allowed international aid organizations unprecedented domestic access to the most closed society on the planet (Natsios 1999, 9).\(^{237}\) Additionally, during the 1990s North Korea established itself as a nation that had an emerging, yet dangerous, nuclear program and a substantial reliance on international aid to meet its food shortages. In the following sections, I provide a synopsis of the

\(^{237}\) Natsios (1999, 9) observes, “The food aid program is visible evidence of the failure of juche, the governing state ideology; it has undermined state propaganda about the outside capitalist world; and it has accelerated the privatization of the economy.”
crisis, pose the same structured questions as in the previous case study, and conclude with a comparative analysis of the results and timeline (Figure 4.11) for reference.

4.c.1. The Great Famine

Prior to the crises during the 1990s, North Korea experienced a number of food shortages, but these did not fundamentally change the DPRK’s societal structure or relationship with external actors. The famine in the 1990s was a stark exception as it established North Korea’s chronic dependence on external assistance to feed its citizens. A number of authors thoroughly document key events surrounding the famine (Noland 2000; Natsios 2001; Lee 2003; Haggard and Noland 2007), and a brief synopsis follows.

Through the 1980s, North Korea fed its citizens through a combination of domestic production and imports of food and other products (such as fuel) at discounted prices to support its agricultural industry. The Soviet Union was North Korea’s most important trading partner, followed by China, and both provided fuel and fertilizer to the DPRK at a substantially reduced rate (Noland 2000, 97-99; Bennett 1998, 3). Organizational choices, such as the DPRK’s emphasis on large state farms and centralized decision-making, historically influenced the incidence and severity of food shortages (Noland, Robinson and Wang 2001, 73). These choices, along with agricultural practices, corruption, and conflicting policies all contributed to the poor harvests of the 1990s. Noland (2003, 4) observes,

...[in 1987] the North Koreans initiated a number of at times conflicting policies in the agricultural sector, including the expansion of state farms, tolerance of private garden plots, expansion of grain-sown areas, transformation of crop composition in favor of high-yield items, maximization of industrial inputs subject to availability, and the intensification of double-cropping and dense planting. Continuous cropping led to soil depletion, and the overuse of chemical fertilizers contributed to acidification of the soil and eventually a reduction in yields. As yields declined, hillsides were denuded to bring more and more marginal land into production. This contributed to soil erosion, river silting, and ultimately, catastrophic flooding.

238 North Korea’s previous shortages were associated with external influences or natural disasters including food shortages in 1945 (attributed to coordination problems after the end of Japanese rule); post-Korean War effects in 1954; and due to poor weather, increased spending based on military confrontations, and industrial underperformance from 1970 to 1973 (Lee 2003, 8).

239 The Soviets provided oil at two-thirds the current world price to the North Koreans, but that Moscow also received goods from North Korea “at less than world prices...so the net magnitude of the subsidy is unknown” (Noland 2000, 97). Additionally, China routinely sold oil to North Korea at half of the current world price (Patrick 1991, 34, quoted in Noland 2000, 97).
Press reports from 1994 began to mention visible signs of strain on the Kim regime and Pyongyang’s official radio broadcast stated, “in parts of the country people go hungry” (Noland 2000, 13). Prior to the famine period, the DPRK government’s Public Distribution System (PDS) supplied food to approximately sixty percent of the population with the other forty percent receiving rations through alternate methods (Haggard and Noland 2011a, 48; Natsios 2000, 96). Refugee surveys indicate that by 1993, less than 20 percent (of those who were previously supported by the PDS) could depend on the Kim regime as their primary supplier of food (Haggard and Noland 2011a, 48). As Haggard and Noland (2011a, 48) comment,

As the PDS broke down, people were forced to turn to foraging and the nascent markets for sustenance. Such coping responses included rearing livestock, growing kitchen gardens, and collecting wild foods like edible grasses, acorns, tree bark, and sea algae.

In 1994, Chinese analysts warned that North Korea was headed for severe food shortages (Eberstadt 1997, 233). As DPRK refugees began to flee across the Sino-Korean border looking for food, North Korea began to reach out to its neighbors and other organizations for aid ((KBSM 1998; Lee 2003, 142; Kristof 1996). The North quietly requested food aid from Japan in the fall of 1994 and again in January 1995 (Haggard and Noland 2011a, 137). They also requested aid from non-governmental organizations such as World Vision International (WVI) (Noland, Robinson and Wang 2001, 750).

Unsurprisingly, North Korea could not compensate for the poor harvests that occurred in 1995 due to severe flooding. The DPRK leadership consistently stated that natural disasters caused the famine (KCNA 1996c), while refugees often blamed the DPRK leadership for the

240 The PDS is a food allocation system used by North Korea to ration foodstuffs. In this system, the North Korean government purchases food from collective farms and redistributes it to all citizens (Apte and Mokdad 1998, 1315). Up until 1995, the system was structured with 10 levels, based on work type and productivity, and afterwards, it was restructured to a three-tiered system based on age (Bennett 1999, 9). One of the key indicators of problems with food availability in North Korea was changes to this system, which reportedly began to falter in the late 1980s (Lee 2005, 5).

241 For example, farmers and their families were given their rations for a year at the end of harvest and were not included in the standard PDS system food allocations (Natsios 2000, 94).

242 Eberstadt (1997, 233) was quoting an article in a South Korean newspaper, the Tong-a Ilbo (13 May 1994).

243 Although North Korea had unsuccessfully sought 500,000 metric tons of food aid from South Korea in the early 1990s (Woo-Cumings 2002, 21), this was first time the DPRK solicited help from the wider international community.
shortages (Natsios 2001, 127). While natural events certainly played a role in the food shortages, the proximate causes were the North Korean economic system and other structural problems (Cumings 2005, 443-444; Haggard and Noland 2007, 209; Lee 2003, 313). As Natsios (2001, 177) observes, “even without flooding, North Korea would have entered the mid-1990s with a substantial food deficit.”

The crisis was one of the worst famines in the 20th century, with the most severe stages lasting from 1996 to 1997. The DPRK famine was “the century’s fifth great totalitarian famine,” and ranked alongside the Soviet Ukraine (1930-1933), China (1958-1962), Ethiopia (1984-1985) and Cambodia (1975) (Natsios 2001, 49-54). Ironically, the famine in the Ukraine under Stalin’s rule and severe food shortages from 1958-1962 during China’s “Great Leap Forward” period were the result of political choices and institutional failures, rather than natural disasters (Bernstein 1984). Similar to the Kim regime, both Stalin and Mao relied on grain procurements and redistributions to deal with the crisis, which often exacerbated the shortages (Bernstein 1984, 369-370). This period, often referred to by North Koreans as the “Arduous March,” was undoubtedly the most traumatic period for the DPRK since the Korean War.

4.c.2. Structured Questions and Analysis

I use the same set of structured questions introduced in the first case study in an effort to identify linkages and determine the influence of diversionary behavior. These questions and my analysis of the case study results follow.

**Question 1. What was the level of hostile foreign policy activities during this period?**

Compared to historic norms, overall hostility levels were low during this period. Yet a number of significant events punctuated this conflict as North Korea pursued two primary, yet distinctive, foreign policy goals during the famine period. The first goal was a sustained effort to

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244 Natsios (2001, 219) also notes that 60 percent of North Korea refugees surveyed from 1997-1999 blamed the famine on the North Korean leaders, economic lapses, priority given to the military (only 25 percent blamed natural disasters).

245 This term harkens back to the “Arduous March” period of Kim II Sung. According to the DPRK Government (2001, 86-87), Kim II Sung and the unit under his command (the 2nd Directional Army) marched for 100 days while being pursued by Japanese Army forces in southern Manchuria. The DPRK Government (2001, 86) notes, “The KPRA [Korean People’s Revolutionary Army] had to continue its forced march and fight bloody battles against the enemy all the while, without properly eating, sleeping or resting in the face of the tenacious and persistent attacks of the enemy, biting cold and raging snow storms unprecedented for 100 years.”
gain international aid,\textsuperscript{246} something in which the DPRK had little experience, but quickly used to avoid economic and social collapse. The second goal was the maintenance of North Korea’s stability through efforts to ensure the Kim regime and its supporters remained in power. These two goals were often at odds with each other: the influx of international aid workers had the potentially destabilizing effect of exposing the secretive North Korean society to the international community (Smith 1999; Natsios 2001, 217-236). Additionally, the DPRK’s pursuit of security objectives, which often resulted in hostile foreign policy actions, typically made the international community reluctant to provide aid. Despite this, North Korea was able to obtain a continuous stream of aid throughout the crisis period\textsuperscript{247} while also engaging in a moderate number of hostile military and diplomatic activities.

Figure 4.7 shows the levels of hostile foreign policy actions that occurred during the famine period. In comparison to the average conflict levels during the 1960s, the severity of the hostile foreign policy incidents during the famine period were almost 50 percent lower.\textsuperscript{248}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{dprk-hostile-foreign-policy-activities-1990-2000.png}
\caption{DPRK Hostile Foreign Policy Activities 1990-2000}
\end{figure}

\textbf{Figure 4.7 Hostile Foreign Policy Activities 1990-2000}

\begin{itemize}
\item Conflict Score (1990-2000)
\item Average Conflict Score (1960-2011)
\end{itemize}

\textbf{Source:} Korean Conflict Database (Appendix C)

\textsuperscript{246} This included humanitarian aid (food and medicine), energy aid (heavy fuel oil), developmental grants and loans, and a variety of other external assistance.

\textsuperscript{247} Between 1994 and 1999, the DPRK received over 3.7 million tons of food aid through the World Food Program and $370 million in fuel subsidies from KEDO (UN FAIS 2012 and KEDO 2001).

\textsuperscript{248} The HFP scores for the famine period averaged 601 per year while the first case study scores were 1222 per year (Appendix C).
North Korea’s famine seemed to dampen the overall incidence of hostile foreign policy activities compared to the rest of the period examined in this study (Figure 4.7 above). Additionally, the only time that hostility levels reached the overall average level for the entire study period (shown by the dotted line in the chart) was during the Taepodong missile crisis period in 1998 (discussed below). In fact, overall conflict intensity scores during this period were 18 percent lower than historical norms for the entire study period.249 Yet, significant incidents did occur, including efforts to develop nuclear weapons and long-range missile systems.

The Nuclear Crisis. The onset of the initial phase of the famine in the 1990s coincided with enhanced North Korean efforts to develop its nuclear capabilities.250 From a security standpoint, and in line with Kim’s concept of national self-reliance, obtaining nuclear weapons was a key priority for Pyongyang.251 The international community became concerned in 1993 as DPRK announced that it intended to withdraw from the Non-Proliferation Treaty (NPT). Subsequent negotiations with the International Atomic Energy Agency (IAEA) and the US and its allies also increased tensions on the peninsula and led to a number of military and diplomatic hostile actions by the DPRK.

In the early 1990s, both the US and the international community began to pursue efforts to denuclearize the Korean peninsula in an effort to dissuade Pyongyang from developing nuclear weapons. These efforts included the removal of all nuclear weapons from South Korea, offers to cease strategic-level ROK-US military exercises, and a US diplomatic exchange (the first since the Korean War) with the DPRK in New York in January 1992 (Mazarr 1995, 94-95).

249 Conflict intensity scores during the famine period were 601 compared to 735 during the entire study period (1960-2011) (Appendix C).
250 North Korea’s nuclear energy program had been around since at least the mid-1950s, when the Soviets began providing technical support and in the 1960s, the USSR helped North Korea build its first reactor at Yongbyon (CIA 1982). The program evolved into dedicated efforts to develop a nuclear bomb in the 1980s (Oberdorfer 2001, 252-254).
251 North Korea’s quest for nuclear weapons was not without reason as nuclear weapons had been present in South Korea and controlled by the US since 1958: balancing against this threat was an unfulfilled goal for the Kim regime (Yun 2005, 14-15). These US weapons included the 280mm nuclear cannons and “Honest John” nuclear capable missiles manned by the US army and the addition (in 1959) of a US Air Force Matador cruise missile squadron (Jackson 2005, 65; Oberdorfer 2001, 257). In 1977, Jimmy Carter (then a candidate for president) announced that the US had stationed over 700 of these weapons in the South (Oberdorfer 2001, 89). The actual figure (683 weapons) from US government sources was very close to Carter’s statement. North Korea’s acquisition of nuclear weapons provided the Kim regime a means to support its national goal of continued state sovereignty (Oberdorfer 2001, 89).
Although North Korea joined the Non-Proliferation Treaty (NPT) in 1985, it had declined to allow inspectors to visit its facilities, citing the presence of US nuclear weapons in the ROK (Spector 1992, 28). When the US removed its nuclear weapons from the peninsula in 1992,\(^{252}\) the Kim regime signed additional IAEA agreements but “continued to find excuses to delay and restrict inspection” (Nye 1992, 1295). The following two years (1993 and 1994) were characterized by failed attempts to inspect the DPRK facilities, IAEA demands for more access, a restart of US-ROK military exercises, and threats by North Korea to withdraw from the NPT (Mazarr 1995, 95-96).\(^{253}\)

Former US President Jimmy Carter helped ease the mounting crisis by travelled to Pyongyang in June 1994 for negotiations and provided “what turned out to be a successful exit ramp to allow the North Koreans to give in to the substance of American demands” (Wit 2004, 243). In late 1994, North Korea agreed to halt its nuclear program in exchange for a number of international aid concessions, to include the delivery of annual fuel and food aid and developmental assistance to built two light water nuclear reactors in the DPRK (KEDO 2012).\(^{254}\)

The tentative agreements included a freeze on nuclear-related activities and agreeing to meet with South Korea in a North-South summit (Oberdorfer 2001, 332-335). In return, North Korea received annual oil shipments and the promise of two light-water nuclear reactor power plants funded by the international community (KEDO 1994). The groundwork was laid for future negotiations and tensions regarding nuclear concerns eased.

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\(^{253}\) This crisis has been well documented by scholars such as Wit (2004) and Oberdorfer (2001, 249-336), who both provide a detailed and useful account of the entire nuclear crisis period.

\(^{254}\) The “Agreed Framework” was the official agreement between North Korea and the United States that resulted. This agreement was not a standard treaty (it was not ratified by the US Congress) but rather a formal set of pledges by both the US and North Korea intended to increase cooperation on the nuclear issue (Cha and Kang 2003, 136; US State Department 1994). Under the Framework, North Korea agreed to dismantle its graphite-moderated reactors, freeze its nuclear weapons program and remain part of the NPT, and allow IAEA inspectors to monitor its progress (Agreed Framework 1994). The US pledged to provide a light water reactor “project” (which equated to two nuclear power generating reactors), 500,000 tons annually of heavy oil for energy use, normalization of political and economic ties, and assurances that it would not attack the DPRK with nuclear weapons (Agreed Framework 1994). While this agreement eventually broke down in 2002 and is now defunct, annual deliveries of heavy fuel oil did occur (over $400 million) between 1995 and 2002 (Manyin and Nikitin 2010, 2) and about one-third of the reactor project was completed (KEDO 2005, 6). The Agreed Framework broke down in 2002 when the implementing organization (KEDO) suspended oil shipments and work on the nuclear plants. This was in reaction to reports that North Korea had begun enriching uranium (essential for nuclear weapons production) in violation of the Framework agreements. In early 2003, North Korea expelled IAEA inspectors, withdrew from the NPT, and resumed reprocessing activities at its Yongbyon nuclear facility (KEDO 2012 and Breen 2004, 38). Throughout the famine period, the Agreed framework did provide two needed advantages to the DPRK: a “free” source of energy supplies (heavy fuel oil shipments) and, just as importantly, decreased tensions with the US and its allies.
Infiltration Activities. Yet other types of hostilities (such as reconnaissance and infiltration operations against South Korea) did occur, albeit at lower levels than during the 1960s.\(^{255}\) North Korean special operations troops continued to conduct operations intended to both destabilize South Korea and gather intelligence information.\(^{256}\) South Korea and its allies detected many infiltration incidents occurred during the famine period, although North Korea sought to keep these out of the public’s view (Bermudez 1997, 159).\(^{257}\) North Korea’s infiltration activities supported the Kim regime through the acquisition of intelligence information and the conduct of destabilizing activities. The North Koreans considered strategic reconnaissance and other special operations missions in South Korea as an essential part of the Kim regime’s overall security strategy to survive and eventually reunify the two Koreas (Hodge 2003).\(^{258}\) These events routinely decreased during periods of relative peace and increased substantially when tensions rose on the peninsula.

The most significant infiltration events during this period were primarily associated with naval activity beginning in 1995 and continued throughout the period.\(^{259}\) These included agent infiltrations via water near the Imjin River (north of Seoul) and near Cheju, a South Korean island just south of the peninsula (Bermudez 1997, 160; Fischer 2007, 12).\(^{260}\) These operations also included the 1996 grounding of a North Korean Sang-o class spy submarine on the East coast near Kangnung, South Korea on a mission to recover a three-person DPRK reconnaissance...

\(^{255}\) The average conflict intensity from 1960 to 1970 was twice as high as during the 1990s (Appendix C).

\(^{256}\) In the 1990s, these units were considered well-trained and capable of conducting a variety of clandestine missions deep into South Korea (MCIA 1997, 102-104; Martin 2006, 538-542).

\(^{257}\) In the late 1980s, infiltration operations into the ROK “decreased dramatically” based on high-level negotiations resulting in a 1992 agreement on non-aggression and reconciliation (Bermudez 1997, 159). At the same time, the levels of hostile foreign policy activities, based on the nuclear issue and missile development and tests, were at significantly higher levels.

\(^{258}\) The DPRK’s special forces, which constituted fifteen percent of North Korea’s overall ground troop structure, were fully capable of conducting these types of operations and had constructed elaborate training facilities, such as an eight kilometer long underground mockup of Seoul for “reality training” (Chosun Ilbo 1994; Martin 2006, 539; Yonhap News 1994a). Refugees reported other training included kidnapping techniques, methods to destroy ships from within, ways to destroy telecommunications systems, and how to bomb institutions (Martin 2006, 540).

\(^{259}\) North Korea often conducts infiltration operations against the ROK via sea routes, due to the porous nature of South Korea’s coastlines and detected activities in the 1990s were typical of previous patterns.

\(^{260}\) In the Imjin river incident, one agent escaped, the other was killed by ROK security forces; the two North Koreans who came in via Cheju island conducted operations for about two months before being detected in Puyo, South Korea (about 100 miles south of Seoul) with both agents being killed by ROK soldiers (Bermudez 1997, 160 and Fischer 2007, 12).
During the following years, additional infiltration and spy incidents occurred, including DPRK agent operations in Seoul and other naval incidents. In November 1997, South Korea’s Agency for National Security Planning (NSP) announced the detection of a spy ring involving a number of individuals including a professor at Seoul National University (Kristoff 1997c; Yonhap News 1997c). This was followed by another submarine incident in June 1998 which occurred when a Yugo-class mini-submarine was discovered grounded and entangled in fishing nets near Sokcho (approximately 40 kilometers south of the DMZ on South Korea’s east coast) (KBS 1998). In December 1998, the South Korean navy sank a DPRK infiltration vessel (semi-submersible high-speed boat) with at least 6 persons, all suspected of committing suicide prior to capture (Lee 1998). Finally, in March 1999, North Korea’s spy efforts against Japan led to a naval clash between DPRK infiltration ships and “a small armada” of Japanese military vessels (Daily Telegraph 1999; Fischer 2007, 18). Ironically, these incidents occurred while North Korea was desperately seeking international assistance. Throughout the late-1990s, the Kim regime solicited food aid from the international community while concurrently continuing a program of aggressive hostile foreign policy targeting the ROK as described above.

Missile Development and Testing. Additionally, North Korea’s ongoing efforts to develop missile technology remained an ongoing concern for the international community. These missiles were a provocative aspect of North Korea’s overall military efforts because they provided the DPRK a long-range “first strike” and retaliatory capability. From the Kim regime’s perspective, missiles provided a source of income as exportable weapons and increased its ability to use “asymmetric means” to balance against the military power of both South Korea and the

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261 After a local taxi driver spotted the submarine, localized chaos ensued as the South Korean military mobilized over 40,000 soldiers and chased DPRK agents who had left the vessel (Witter 1996; Fischer 2007, 13). The incident resulted in the deaths of all but one of the infiltrators and 17 South Korean (military and civilian) (Koh 1997, 2). After significant international pressure on North Korea, the Kim regime “expressed regret” over the incident, which negatively affected the DPRK’s ongoing efforts to obtain international aid (Bermudez 1997, 165; Myers 1996). Bermudez (1997, 161-168) provides a detailed account of the incident focusing on the equipment and methods used by the DPRK special operations forces.

262 Seoul National University is generally considered South Korea’s most prestigious university.

263 One of the key missions of these agents was to “was to recruit leading members of South Korean society including scholars and politicians” (O 1997).

264 All nine crewmembers were found dead of apparent suicide (Oh 1999, 100).

265 This was the first time the Japanese had fired on naval vessels since World War II (Daily Telegraph, 1999).
United States. Over the next few years, North Korea improved upon the Scud platform and began working on an advanced version capable of carrying a nuclear warhead, the Scud-D or No-dong that was test-launched in May 1993 and subsequently deployed throughout North Korea (Yomiuri Shimbun 1993; Kyodo News 1995). Although US Patriot anti-missile systems had been deployed to South Korea in 1994 (Shin 1994), the longer range No-dong missile (up to 1500 kilometers) resulted in protests from Tokyo and requests to also deploy the Patriot systems to Japan (Yomiuri Shimbun 1993).

After the No Dong missile tests and the 1994 Agreed Framework accords were concluded, North Korea’s missile program became a key issue for US diplomats (Michishita 2010, 118-119). Lower-level negotiations occurred throughout 1995, followed by official talks in April 1996, which were interrupted by preparations for an additional No-dong test in 1997, and then resumed in 1998 and again halted by another pending missile launch that same year (Michishita 2010, 118-123). This time, talks stalled due to North Korea’s most ambitious missile project to date: the Taepodong-1 (Samore 2004a, 75). That same year, North Korea caused significant concern in the region as it test-launched the Taepodong-1 in a trajectory over Japan (eventually landing in the Pacific Ocean) (Nihon Keizai Shimbun 1998; Cumings 2005, 502). The Taepodong-1 system could range further than North Korea’s previous systems and potentially target all of South Korea and Japan and US forces stationed at those locations (Bermudez 2001, 276).

266 North Korea’s ballistic missile efforts have been part of its overall defense program since the 1960s when the Soviet Union provided FROG (Free Rocket Over Ground) surface-to-surface missile systems (Yun 2004, 122; Samore 2004a, 63). In the late 1960s, the USSR refused to provide upgrades or additional assistance for the program and the Kim regime turned to China for cooperation and assistance, establishing an extensive set of technology and exchange agreements (Bermudez 2001, 239). In the 1970s, North Korea pursued its own program, spurred by South Korean efforts to develop its own short-range surface-to-surface missiles (Pinkston 2008, 15; Bermudez 2001, 240). In 1976, while China and the Soviets declined to sell newer systems to North Korea, the Kim regime arranged to procure Scud-B (short range ballistic missiles) from Egypt, which had acquired these from the Soviets (Worden 2008, 257-258). North Korea reverse-engineered these systems, renaming them as “Hwasong-5” missiles and conducted their first test launches in 1984 (Yun 2004, 124-125). For more information on North Korea’s ballistic missile program and its relationship to the Kim regime’s foreign policy and security goals, see Bermudez (1999), Bermudez (2001, 236-291), and Michishita (2009, 117-137).

267 The North Koreans canceled this launch as part of the negotiations process (Michishita 2009, 119).

268 The Taepodong-1 system had been in production at the same time as the No dong missiles and provided the DPRK an intermediate-range ballistic missile (IRBM) that was nuclear payload-capable and could range up to 1,500 kilometers (Worden 1999, 258). Concurrently, the Taepodong-2 was also being developed as an ICBM (intercontinental ballistic missile) with a range of up to 12,000 kilometers, which was long enough to target the United States (Worden 2009, 258; Bermudez 2001, 276).
In 1999, the US government determined that both the nuclear and missile technology capabilities of the North Koreans threatened the stability of the region and pursued intense diplomatic discussions to secure agreements with the Kim regime to curtail both efforts in exchange for international aid (Perry 1999; Cumings 2005, 502-503). After further negotiations and after preparing to test launch the longer-range Taepodong-2, North Korea announced in September 1999 that it would freeze missile development and testing (Michishita 123-125).

Naval Clash. Another significant hostile foreign policy was a nine-day naval battle in June 1999 in which North Korean ships confronted and engaged ROK vessels along the Northern Limit Line (NLL) (Fischer 2007, 18-19; Van Dyke 2003). The incident, often referred to as the “First Battle of Yeonpyeong,” occurred along the disputed NLL in the waters just to the west of the Koreas. The naval engagements began in early June 1999 when North Korea started to aggressively enforce the 12 nm boundary claimed by the DPRK (KCNA 1999b; ICG 2010, 6). The incident culminated with an exchange of fire that left up to 30 DPRK sailors dead, one North Korea torpedo boat destroyed (with four others damaged), five ROK vessels damaged, and nine South Korean sailors wounded (Van Dyke 2003, 143; Whymant and Watts, 1999).

While the level of hostile foreign policy during this period was significantly lower than during the other two case studies, significant events did occur. Many of these were based on Kim regime efforts to increase political stability, and some (such as the nuclear program and missile launches) were directly tied to Kim regime efforts to divert public attention while concurrently seeking international food and energy aid. I discuss these linkages further in the sections below.

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269 Michishita (2009, 132) notes that “in terms of missile range and capabilities, the No Dong was designed for use against Japan and the Taepo Dong, or more specifically, the Taepodong-2 was designed for use against the United States.”

270 This lasted through the end of the famine period and was reaffirmed by North Korea in 2001 (Worden 2009, 258).

271 This was the first of two significant naval engagements between the ROK and DPRK in the region between 1999 and 2002. The second clash occurred in June 2002 when DPRK boats and opened fire on South Korean vessels near the NLL resulting in the deaths of six South Korean sailors, the sinking of a ROK speed boat and severe damage to a North Korean ship (CSIS 2010).

272 The NLL is the maritime extension of the Military Demarcation Line (MDL), which is the official boundary between North and South Korea. On both the north and south side of the MDL there is a 2 km buffer zone (or DMZ) that is the land-based separation zone between the DPRK and ROK.

273 Appendix F includes a map of the West (Yellow) Sea area.
Question 2. Was political instability associated with heightened HFP activities? (Hypothesis 1)

Direct links between instability and external HFP actions were difficult to identify. But, there was a significant level of political turmoil during this period as the DPRK faced a leadership power transition from Kim Il-Sung (father) to Kim Jong-il (son). In fact, in 1994 when the DPRK power transition occurred, there was a marked decrease in North Korean hostile foreign policy activities in contrast to the argument proposed by H1 (see Appendix C).

On 8 July 1994, Kim Il-sung died of an apparent heart attack after an on-the-spot inspection to a collective farm (Oberdorfer 2001, 339). As Natsios (2001, 127) observes, “In any country, the death of the sitting head of state would be disruptive and perhaps destabilizing; in North Korea, given the cult of personality surrounding the Great Leader, it was an apocalyptic event [author emphasis].” Kim’s death was a national shock to the North Koreans, who had depended on his regime for over four decades, and resulted in a national outpouring of grief, both genuine and instigated by the government (Lintner 2005, 84). The official period of mourning lasted three years (Suh 1998, 13). Although the younger Kim had been groomed to succeed his father and the international community was well aware of the regime’s plans for power transition, the Great Leader’s death was seen as a threat to both the peace process and political stability in the DPRK (Wit 2004, 257).

Yet, due to the careful preparation and the strong Stalinist institutions in North Korea, the succession from father to son brought few structural

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274 Kim Il-sung was the founding father of the North Korean state, appointed and sponsored by the Soviets during their post-WWII occupation of the DPRK. After spending the 1930s as a communist guerilla fighter against the Japanese in Manchuria and much of the 1940s training in Soviet camps, Kim returned to Korea in September 1945 to a hero’s welcome (Eckert and Lee 1990, 341). Kim was instrumental in the early formation of the DPRK and by early 1948, after a purge of older communists, he established firm control of the North Korean Workers Party (Buzo 2002, 56). In September 1948, the Democratic People’s Republic of Korea announced itself as an independent nation, with Kim Il-sung as its leader. Kim led North Korea for over 45 years: through war with the South and rebuilding (supported by both the Soviets and the PRC); challenges to his authority in the late 1950s; industrial and social achievements and an “undeclared war” with South Korea and the US in the 1960s; limited reconciliation with the ROK in the 1970s; and the beginnings of economic stagnation in the 1980s.

275 While there was some suspicion of foul play because of the timing of the elder Kim’s death (which occurred just prior to the next round of negotiations), the US and South Korean governments concluded that there was no credible evidence of extraordinary circumstances (Wit 2004, 256).

276 The term “Great Leader” is an honorific phrase referring to Kim Il-sung. Kim Jong-il was often referred to as the “Dear Leader” by the North Korean public.

277 In fact, South Korea took a much harder line towards North Korea in the wake of the elder Kim’s death, including forbidding ROK citizens from attending the funeral in Pyongyang, crackdowns on student dissidents, and the release of archival documents “proving beyond a shadow of a doubt the Great Leader’s responsibility for starting the Korean War” (Wit 2004, 261).
changes to the DPRK.\textsuperscript{278} Kim Jong-il sought to continue his father’s legacy and the “essential structure of North Korea’s self-proclaimed ‘Juche system’ is being preserved much as it has existed for nearly half a century” (Quinones 2003, 13). The intent of the Kim Jong-il regime was a continuation of previous economic and political policies, despite inherent flaws and shortcomings.

Although a tremendous outpouring of grief occurred following the death of Kim Il-sung, the reaction of most North Koreans to the onset of the famine and reductions in government rations was muted.\textsuperscript{279} Protests did occur, but they were uncoordinated and resulted in severe government responses. North Korea has “no institutions capable of channeling mass discontent into effective political action” (Noland 1997, 106). The penalties in North Korea for protesting government actions or violating government policies were harsh and often resulted in individuals and their families being sent to prison camps or executed depending on the violations.\textsuperscript{280} Additionally, the social characteristics of collectivist-family oriented societies, such as North Korea, often limits actions that stray outside of the norms of expected conduct (Triandis 2001). Thus, the North Koreans were limited in their responses social distress due to both institutional (societal) and cultural constraints. Yet, the famine period was an unprecedented situation for the North Koreans and there were sporadic reports of riots and other actions during the famine period.\textsuperscript{281} Table 4.3 below lists reported incidents in the 1990s.

\begin{itemize}
\item \textsuperscript{278} Beginning in 1971, Kim’s son was promoted through positions of increasing power in the KWP and in September 1973, Kim Jong-il was “formally anointed as his father’s successor” during a secret KWP politburo meeting (Savada 1994, 169 and Oh 1988, 6). Although most of Kim Il-sung's faction supported the choice of the younger Kim to succeed the "Great Leader;" there were some who considered the “monarchist” transition of DPRK power as inappropriate and there were obvious questions of the younger Kim’s credibility (Cha and Sohn 2012, 49). Kim Jong-il did attempt to establish his bona fides as a capable “revolutionary” successor. Kim was reported to have engineered a number of hostile incidents, including the 1974 poplar tree (“Axe Murder”) incident in which two US officers were killed by North Koreans during a tree-trimming dispute along the DMZ; an assassination attempt against the South Korean president during a visit to Canada in 1983; another presidential assassination attempt in 1983 in Rangoon in which a bomb killed 17 senior ROK officials; the 1986 bombing of South Korea's Kimpo airport; and the downing of Korean Airlines flight 857 in which 115 passengers and crew died after North Korean agents planted a bomb on the flight (Becker 2005, 154-155).
\item \textsuperscript{279} The food distribution system (the PDS), which had existed for decades, faltered and in some areas stopped completely, resulting in a cessation of government-supplied food rations (Lee 2005, 6-11).
\item \textsuperscript{280} Defector testimony is the primary source of information on North Korea’s police and penal system. See Haggard and Noland (2007, 81-99), Hassig and Oh (2009, 195-215), Martin (2006, 290-304) and Kang and Rigoulet (2001).
\item \textsuperscript{281} Riots and protests during the famine period were significantly higher than during the other two cases. During the 1960s, there were no significant instances found and the only significant protests during the 2000s were associated with the DPRK’s 2009 currency reform (KINU 2011b, 542).
\end{itemize}
Table 4.3 Riots and Coup Attempts (1992-1999)

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>August 1992</td>
<td>North Korea reportedly executed 18 military officers, including generals, involved in a coup attempt against Kim Il-sung and Kim Jong-il (The Age 1993; Lim 1993).</td>
</tr>
<tr>
<td>March 1993</td>
<td>DPRK State Security Department detected and prevented a coup attempt by officers of the KPA’s 7th Infantry Division (Bermudez 1997, 158).</td>
</tr>
<tr>
<td>April 1993</td>
<td>Large scale riots associated with food shortages and unrest occurred in Sinuiju near the Yalu River estuary involving 40,000 individuals. Approximately 30,000 North Korean troops suppressed the riots, making 3,000 arrests. (Cho 1993; KBS Radio 1993; Chon 1993).</td>
</tr>
<tr>
<td>Autumn 1995</td>
<td>The Korean People’s Army’s (KPA) 6th Corps (Hamhung Province) was purged and reorganized “under circumstances suggesting disarray in the ranks” (Oberdofer 1997, 375). Reports surfaced that the 6th Corps had been planning a coup (Natsios 2001, 217).</td>
</tr>
<tr>
<td>February 1996</td>
<td>Approximately 200 students protested in Chonjin over food embezzlement by party cadres (No and Choe 1996).</td>
</tr>
<tr>
<td>March 1996</td>
<td>In Yanggang Province, 800 North Korean forestry workers missed work in protest of the suspension of food rations. (Chungang Ilbo 1996a).</td>
</tr>
<tr>
<td>October 1996</td>
<td>At least 200 North Korean soldiers from the KPA 6th Corps in Najin-Sonbong (North Hamhung Province) participated in a “massive riot” over food rations and labor conditions. The North Koreans execute approximately 120 soldiers as a result (Chungang Ilbo 1996b).</td>
</tr>
<tr>
<td>March 1999</td>
<td>Statues of Kim Il-sung are vandalized throughout North Korea (Korea Times 1999a).282</td>
</tr>
<tr>
<td>October 1999</td>
<td>Riots occurred in coal mining areas near Onsong, North Hamgyong province. These were suppressed by a North Korean “special espionage unit” (Chi 1999).</td>
</tr>
</tbody>
</table>

The 1992 coup attempt was, at least on the surface, the most serious challenge to the Kim regime. Defectors reported that in September 1992, a group of DPRK generals planned to use their troops to occupy key government buildings in Pyongyang and arrest both Kim II-sung and Kim Jong-il. The plot failed when one of the officers informed regime authorities (The Age 1993; Lim 1993). Other rumors also surfaced of localized food riots (Snyder 2000, 528), although the numbers are unknown. Yet these occurrences in North Korea (ten incidents between 1992 and 1999) are low in comparison to the number strikes and protests that occur in South Korea each year, which can number in the hundreds.283 Food riots and other forms of...

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282 While these events might be considered instances of petty crime in most states, this type of activity rarely occurs and indicated growing public dissatisfaction with the Kim regime. Pictures and statues of both Kim II-sung and Kim Jong-il are considered “the very embodiment of those leaders, beyond mere art, and are treated accordingly” and disrespect or defamation usually incurs severe penalties or imprisonment (Korea Times 1999).

283 This observation is based on the author’s experience while living in South Korea.
protest certainly occurred in North Korea, but not at levels that seriously challenged the overall ability of the Kim regime to remain in power: the governmental apparatus was too strong and North Korea’s civil society was much too weak (Bennett 1994, 4). The average North Korean most likely focused on basic survival during the famine, rather than efforts to challenge the Kim regime (Cha 2004). Thus during this period, the Kim regime retained enough control over North Korean society to ensure the DPRK government remained intact and politically stable. While the Kim regime might have used hostile foreign policy to distract the public’s attention, there was no evidence of an increase in HFP due to political instability.

**Question 3. Were economic difficulties associated with increased HFP? (Hypothesis 2)**

There is some evidence of a link between North Korea’s economic difficulties and its hostile foreign policy activities as proposed in H2. The DPRK used its nuclear program to both threaten the international community and seek external aid and concessions. For example, North Korea’s announcement that it intended to withdraw from the NPT in 1993 and declaration of its intent (in a crisis) to use nuclear weapons against Seoul in 1994 both occurred at the beginning of the famine period. For the DPRK, the limits of its centrally controlled economy became painfully apparent as North Korea’s emphasis on “self-reliance,” failure to trade with the international community, “promotion of state-owned heavy industries,” disproportional emphasis on defense spending, and weather conditions all served to cause severe economic stress (Nanto 2008, 6).

Despite the emergence of increased economic ties with South Korea in the 1990s (and just prior to the famine period), the DPRK economy was characterized by significant trade deficits with its neighbors. Between 1990 and 1991, North Korea’s total trade decreased 44% from $4.7 billion to $2.6 billion (Nozoe 1997, 26). North Korea’s most significant trading partner through 1990 remained the USSR (56% of total trade) followed by China (11%); after the fall of the Soviet Union, DPRK-China trade increased to approximately 25-30% of total trade.

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284 North Korea’s overall reaction to the famine situation was fundamentally different than other societies. Bennett (1994, 4) compared reactions in Africa to famine to those of North Korea and observes, “In contrast to famine in Africa, where state disintegration and a weakening of civil society are often the norm, North Korea is characterized by stability, centrality and civil order. Social control permeates all aspects of society; there is no ‘civil society’ association which is not state run, and information is closely guarded. The current [DPRK] humanitarian crisis has emerged in a fully mature Stalinist polity in which the notion of ‘humanitarian space’ is alien.”

285 The threat, issued in 1994 by a DPRK diplomat, was intended to demonstrate the DPRK’s ability to use nuclear weapons against the ROK (Financial Times 1994).
(Nozoe 1997, 26), yet the overall level of North Korean trade was substantially lower than in previous years.

Thus by the early 1990s, North Korea’s economy was in severe trouble and the loss of Soviet support coupled with changes in its relationship with China demonstrated the inherent weaknesses in the DPRK’s economic system. North Korea’s industrial capacity faltered because of the loss of economic support and trade after the “demise of the Soviet Union, and a subsequent collapse in the energy regime necessary to sustain industry” (Woo-Cumings 2002, 21). At the beginning of the famine period GDP levels plunged, shrinking an average of 13 percent each year between 1992 and 1997 (Maddison 2008). Figure 4.8 below shows the historic levels of North Korea’s GDP.

Figure 4.8 North Korea GDP Change (year on year)

Figure 4.8 shows exactly how dire the economic circumstances were during the famine years. The contraction of the DPRK’s economy had resounding effects throughout North Korean society and the Kim regime sought alternate means to obtain needed international aid. As a result, North Korea also made efforts to enhance its missile capabilities, and a number of launches and tests occurred during beginning in 1996, during the worst years of the famine. The missile launches (especially the Taepodong) came at a time when North Korea was suffering from the effects of both the famine and economic catastrophe. The DPRK used its missile program as part of the aid negotiation process, eventually agreeing to a test ban in exchange for international support (Michishita 123-125). These events were diversionary in nature and served to provide a means for the DPRK to obtain external assistance. North Korea’s official news
announcement (KCNA 1998d) demonstrated the domestic perceptions Pyongyang hoped to reinforce by stating that the DPRK had “set up a new milestone in the building of a strong and prosperous socialist country…[signifying]… the strength of the DPRK, independent in politics, self-sufficient in the economy and self-reliant in national defense.” The missile development program and launches served multiple purposes, primarily focused on forcing external states to provide needed economic support and maintaining an air of tension between the Koreas to support that end.

Yet, despite the presence of diversionary-type behaviors, a comparison of the level of economic difficulties (which were high) and the overall level of HFP activities does not provide support to H2 and P1. The severe economic distress experienced by North Korea should have spurred high levels of conflict actions (based on the diversionary hypothesis and the operationalization of P1). Conflict actions did occur during this period, but they did not occur in the manner predicted by P1 and were more focused on efforts to secure aid for the regime.

**Question 4. Was social instability associated with periods of increased HFP? (Hypothesis 3)**

Social instability, caused by the lack of food and incidence of starvation, was extremely high throughout the famine period, yet there was not a corresponding increase (compared to historic averages) in overall hostile foreign policy activity levels, as diversionary theory would suggest. In the previous section on economic stability, I note that the nuclear program and missile tests occurred at both the beginning and peak of the famine. In the case of social instability, present throughout the entire case study period, the linkage between specific conditions, such as food shortages and rising mortality rates, and heightened levels of HFP actions were much more difficult to detect.

Food shortages were rampant in certain parts of the country, and access to sustenance often depended upon party affiliation and geographic location. During the famine, members of North Korea’s “core class” (who were loyal supporters) and Pyongyang residents fared much better compared to the “hostile class” (under suspicion by the DPRK government) and those who lived in the urbanized areas of the eastern provinces (Cumings 2005, 443; Hassig and Oh 2009, 203; and Haggard and Noland 2007, 51-52). Visitors to Pyongyang saw few indications of the chaos that existed in the countryside (Yonhap 1996c), especially the northeastern area, which

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286 For a discussion on North Korea’s political “caste” system, see Hassig and Oh (2009, 198-204).
was the first to lose food shipments from the PDS in 1993 (Natsios 1999, 105). Yet this was not initially apparent to aid workers, whose movements were carefully monitored and controlled by the North Korean authorities, often being shown extreme cases of famine in some areas and barred entry to others (Haggard and Noland 2007, 89).

Prior to 1995, North Korea did not receive international aid from the UN and other donors in a formalized method, although China and the Soviets habitually provided commodities at “favorable” prices. Beginning in 1995, North Korea obtained massive amounts of public and private international assistance (Haggard and Noland 2011a, 55). Figure 4.9 below shows the levels and donor distribution of international food assistance recorded by the UN World Food Program between 1995 and 2000.

As shown in Figure 4.9, food aid to North Korea generally increased throughout the famine period and between 1995 and 2000, with four nations (the US, China, Japan, and ROK) providing 73% of the total aid (UN FAIS 2012). Despite the increasing levels of aid, North Korea continued to pursue its missile development programs and hostile foreign policy activities, albeit at levels lower than historic norms (see Appendix C).

Child mortality rates, another indicator of social distress, increased significantly during the crisis and were 170 percent higher in 1996 than in 1990 (UN IGME 2012). Changes in longevity information also demonstrated the severity of the crisis. A child born in 1991 in North Korea could expect to live to age 70 (which is comparative to most modern states) while a child

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287 Natsios (2000, 105-106) argues that North Korea’s northeastern provinces were “triaged” (denied aid) by the Kim regime to ensure adequate food was available in Pyongyang.
born just 5 years later could only expect to live to age 64 (World dataBank 2012; Goodkind and West 2001, 226). Additionally, the effects of malnutrition were widespread. World Food Program survey data including almost 4,000 children in 1997 indicated 16.5% were “wasted” (underweight for their height) and 38.2% were “stunted” (not tall enough for their age), both of which are signs of chronic malnutrition (Katona-Apte and Mokdad 1998, 1317). Figure 4.10 shows child mortality rates on the Korean peninsula during the crisis.

Figure 4.10  Child Mortality Rates Compared

![Graph showing child mortality rates in North and South Korea (1990-2010)](image)

Source: UN Inter-agency Group for Child Mortality Estimation (IGME) (2012)

Other surveys confirmed long-term effects of North Korea’s lack of food. For example, In 1997-1998, the average DPRK seven-year-old was 22 pounds lighter and 8 inches shorter than children who were the same age in South Korea (Eberstadt 2000, 875-876). While these domestic conditions demonstrated that North Korean social structures were under significant stress, none of these conditions seriously challenged the Kim regime. In fact, at least one assessment (Kaufman 2010) indicated that overall societal stability actually increased during this period.²⁸⁸ This was possibly due to factors such as the citizens’ focus on obtaining the basic needs for survival, the ability of the Kim regime to maintain the support of the military and the

²⁸⁸ Kaufman’s (2010) World Governance Indicators assessment of North Korea between 1996 and 2000 actually showed an increasing level of political stability during the famine period.
international aid, and the control exercised by the DPRK government over its people.\textsuperscript{289} Overall, despite the shock of famine and its effects, North Korean society “muddled through”\textsuperscript{290} and the regime remained under stress but intact.

As with food shortages, evidence of instances of direct linkages between social instability and hostile foreign policy are difficult to determine. The social effects of the crisis undoubtedly affected the Kim regime’s choices to engage in HFP activities, and the North Korean leaders did pursue diversionary activities during this period (as discussed at the end of this section). Thus while direct evidence of increased HFP due to domestic distress was limited, the social crisis caused by the famine probably resulted in some hostile actions by the Kim regime in efforts to force international concessions.

\textbf{Question 5. Were UN resolutions against the DPRK associated with increased HFP? (Hypothesis 4)}

The sole UN Security Council resolution enacted on North Korea just prior to this case study had little to do with hostile foreign policy activity levels. When North Korea announced its withdrawal from the Non-Proliferation Treaty (NPT) in March 1993, the UN responded with Security Council Resolution 825, which rebuked the DPRK and called for it to return to the NPT (UN 1993; Lee and Choi 2009, 29).\textsuperscript{291} Political rhetoric dominated hostile foreign policy events during that period and these incidents were at levels consistent with previous periods (Appendix C). Thus, I find that the UN Security Council resolutions were unrelated to DPRK activities during this period.

However, other sanctions imposed unilaterally by the US and other states\textsuperscript{292} did seem to affect DPRK activities and the Kim regime’s attempt blame its difficulties on the international community. The United States has a long history of enacting sanctions against the Kim regime,

\begin{itemize}
\item \textsuperscript{289} As Oh and Hassig (2000, 145) notes, “Arguably, no government in the twentieth century has succeeded in exercising as much control over its people as has the Kim government.”
\item \textsuperscript{290} Many authors (Noland 1997; Cha 2004; Eberstadt 1993) have used this phrase to describe North Korea’s ability, despite all odds, to survive both economic and social crises intact.
\item \textsuperscript{291} There were no other UN Security Council Resolutions enacted on North Korea until the mid-2000s.
\item \textsuperscript{292} International community responses to North Korean provocative actions ranged from strongly worded denouncements to economic sanctions. Sanctions are defined as “deliberate, government-inspired withdrawal, or threat of withdrawal, of customary trade or financial relations” (Hufbauer 1990, 2). Despite the debate on the effectiveness of sanctions regimes (Hufbauer 1990), these have become common foreign policy responses to North Korea’s actions. For states concerned about DPRK activities, sanctions provided a diplomatic option with little risk (compared to more violent, armed solutions) and gave policymakers the satisfaction that at the very least, “something was being done” in response to North Korean activity.
\end{itemize}
dating back to 1950, based on the DPRK’s actions as a communist government and other perceived threats to US security. During the famine period, at least 17 US sanctions were in place including limits on almost all types of economic interaction. This had the overall effect of minimizing US trade and foreign aid to the DPRK (except for humanitarian aid approved by US leaders), and blockage of any arms transfers or sales (Rennack 2011). Additionally, the US froze assets for certain DPRK businesses and individuals associated with missile technology and weapons transfers (Rennack 2011, 21-22). South Korea and Japan also imposed limitations on economic contact, often based on hostile foreign policy actions, such as the 1998 Taepodong-1 missile launch over Japan (Fischer 2007, 17; Lee and Choi 2009).

North Korea’s reactions to sanctions and the UN resolution followed previous diplomatic patterns: forceful denouncements and rhetorical public statements by the Kim regime, followed by protests and threats. In fact, the DPRK called the Security Council action a “declaration of war” (AFP 1993a). This allowed the Kim regime to generate an external threat, which was “a classic tool for suppressing dissent, demanding sacrifices, and consolidating power” (Wit 2004, 37). North Korea was persuaded back to the negotiating table in June 1993, followed by a year’s worth of negotiations and the Agreed Framework accords in October 1994. Other linkages between US sanctions, most of which were in place long before the 1990s (USITC 1998), were not evident on the surface, but they certainly sustained the levels of hostility between the US and the DPRK (KCNA 1995a; KCNA 1996a; KCNA 1996b). Thus while UN resolutions were not directly linked to increases in North Korean HFP activities, the ongoing US unilateral sanctions allowed the Kim regime to continue to blame external actors (such as the US) for its internal distress.

**Question 6.** Were ROK leadership changes associated with increased North Korean hostile foreign policy activities? (Hypothesis 5)

In examining ROK national election periods, I find that North Korea increased HPF activities during these South Korean presidential elections. For the ROK, South Korean politics were still emerging from a legacy of authoritarian rule during this period. After a history of authoritarian rule and public dissatisfaction, South Korea’s government revised its constitution in 1987 to allow for direct democratic elections. In 1987, Roh Tae-woo was the first democratically elected South Korean leader followed by Kim Young-sam’s election in 1993 which solidified the democratic
staged its second-ever modern democratic election in 1992 and Kim Young-sam emerged as the first non-military head of state in over 30 years. This was followed by continued democratic elections of civilians beginning with the 1997 election of Kim Dae-jung who took office in 1998.

Kim Young-sam’s 1992 campaign elicited negative responses from North Korea, including a “freezing of relations” in November 1992 ahead of the national elections in December (Lee 1992). During this same time, negotiations were ongoing in an effort to establish an “inter-Korean treaty” but were halted due to a number of key events. These included North Korean protests against pending ROK-US military exercises (the most significant being “TEAM SPIRIT”), Seoul’s discovery of a large underground DPRK spy ring, and the ongoing tensions associated with North Korea’s nuclear efforts (Lee 1992). The spy scandal along with allegations that North Korea instructed its operatives in South Korea to vote for Kim Young-sam’s opponent (former dissident Kim Dae-jung) and that the DPRK had used its “its propaganda machine” to influence the election, might have tipped the balance in conservative Kim Young-sam’s favor (Lee 1992; Breen 1992). When Kim Young-sam was elected with 41 percent of the popular vote (versus Kim Dae-jung’s 33 percent), North Korea denounced the elections and accused the US of manipulating the election (Lee 1992). Additionally, hostile foreign policy activities during early 1993 (when Kim Young-sam assumed office) were at higher levels than the adjacent time periods (before and after), but they were at levels lower than historic norms (see Appendix C). Thus, there was an identified relationship between the ROK election and DPRK hostile activities in support of H5.

South Korea’s next presidential campaign occurred in 1997, when former dissident Kim Dae-jung faced the incumbent party led by establishment candidate and former Prime Minister Lee Hoi Chang. During the previous presidential campaign, North Korea allegedly supported Kim Dae-jung (Lee 1992; Breen 1992) and again used public statements to criticize the ruling

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295 South Korea discovered a 400-member North Korean spy ring in Seoul which had been establishing a command and control center for covert operations in the South (Fischer 2007, 11; Breen 1992).
296 Kim Dae-jung had a long history of conflict with the South Korean political establishment and was a presidential challenger to longtime authoritarian ruler Park Chung Hee in 1971. Park had intelligence operatives in Tokyo kidnap Kim in 1973 and Kim remained either in prison or under house arrest until 1978 (Oberdorfer 1997, 126; Eckert 1990, 364-372).
297 Kim Young-sam had resigned from the ruling party and declared that he was “neutral” in the election (Sullivan 1997). South Korean law limits each president to a single five-year term limit.
party and sitting President Kim Young-sam (KCNA 1997). At this time, the North Korean famine was at its worst and South Korea was struggling through the Asian financial crisis in efforts to comply with International Monetary Fund (IMF) lending requirements. Aside from North Korean rhetoric criticizing the sitting ROK government and media outlets the DPRK had little say about the election. Yet during the 1997 elections, North Korea’s tendency for provocative actions was most likely dampened because of the undecided South Korean presidential election and the DPRK’s crucial need for humanitarian aid. In December 1997, Kim Dae-jung was declared the winner with 40 percent of the popular vote. The Kim regime’s response was positive as it officially “expressed hopes for improved relations with South Korea under President-elect Kim Dae-Jung” (Japan Economic Newswire 1997).

DPRK actions in 1992 were a visible, but ultimately unfruitful, attempt to influence elections in its favor. North Korea’s HFP activities in 1997, although at a lower level than during the 1992 elections (see Figure 4.7), were also indicative of its intent to influence the South Korean presidential election. North Korea’s actions provide support to the idea that North Korea increased (or intended to increase) its HFP activities in conjunction with ROK leadership changes.

**Question 7.** Were US leadership changes associated with increased North Korean hostile foreign policy activities? (Hypothesis 6)

US presidential elections during the North Korean famine period occurred in 1996, with Bill Clinton seeking to retain his incumbent status as president. North Korea’s hostility levels during the campaign and in the quarter afterwards were at consistent levels demonstrating no relationship to this US leadership change. Two years prior to the election, the Clinton

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298 North Korea focused its propaganda attacks on the Kim Young-sam government, who spent much of 1997 responding to accusations of accused of a number of corruption scandals and was blamed for South Korea’s financial crisis (Kristof 1997b).

299 The Asian financial crisis, which lasted from May 1997 to around February 1998, was triggered by a loss of confidence by international investors in Asian currencies and stocks (Nanto 1998). In October 1997, the South Korean won dropped significantly and Seoul applied for International Monetary Fund (IMF) assistance, eventually receiving $57 billion in bailout support. Throughout 1997, South Korean government officials were reluctant to provide additional funds to alleviate the famine while the ROK itself was experiencing its own domestic crisis and receiving financial aid from the IMF (Korea Times 1998a). For a useful review of the crisis and its effects on Korea and the region, see Nanto (1998), Yoo (1999), and Noland (2000, 195-250).

300 North Korea publically threatened a number of South Korean media organizations for publishing first-hand accounts of incidents ranging from the relationship between Kim Il-sung and Kim Jong-il to the daily lives of North Korean citizens (Fischer 2007, 14-15; DPRK 1997).
administration successfully weathered a nuclear crisis with North Korea and signed the Agreed Framework, which provided heavy fuel oil shipments to the DPRK (Manyin and Nikitin 2010, 2). During Clinton’s campaign, famine in North Korea was well underway after crop losses partially due to monsoon flooding in July and August 1995 and early 1996. In response, the Clinton administration took a number of steps to both support North Korea and to ease tensions, namely the unilateral provision of $2 million and removal of North Korea from the US “terrorist states” list. While the Clinton administration stated that these actions were intended to support continued DPRK participation in the Agreed Framework, South Korean media charged that these efforts were intended to avoid conflict with the DPRK prior to the US elections in November of 1996 (Yu 1996; Hanguk Ilbo 1996). North Korea’s public rhetoric was relatively quiet during this period, refraining from criticizing either the South Korean or US leadership (Kim K.1996).

While there was no evidence that North Korea actively supported the reelection of Bill Clinton, the alternative, conservative Robert Dole, publically took a more hawkish stance towards North Korea than the Clinton administration. The DPRK indirectly criticized Dole, stating, “Amidst [sic] presidential election campaign in the United States, some forces are trying to improve their image by slandering the DPRK” (AFP 1996). Clinton’s reelection was much more conducive to North Korean goals of continued aid and support from the West. Pyongyang’s government radio station briefly acknowledged Clinton’s reelection win in November 1996 by simply stating, “Analysts feel that even though Clinton has been reelected, he will be faced with grave challenges in domestic and foreign affairs” (DPRK 1996a). Considering their history of diplomatic pronouncements condemning the US and its actions, this was a relatively benign statement for the North Koreans.

The most significant hostile foreign policy event during the US election period was the grounding of a North Korean spy submarine attempting to insert agents on the eastern coast of the ROK in September 1996, causing South Korea to withdraw its support to KEDO.301 While North Korea apologized, expressing “deep regret” (Myers 1996), this incident was indicative of the ongoing clandestine efforts by the DPRK in South Korea and the ROK considered this an “armed provocation” against the South (Yonhap News 1996d). While North Korea certainly did

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301 This event resulted in a massive manhunt in South Korea and the mobilization of over 40,000 South Korean troops. Two (of twenty-six) agents were captured alive (all others were killed) and seventeen ROK military and civilian personnel died (Koh 1997, 2; Fischer 2007, 13; CSIS 2010, 4). This event was followed by the murder of a South Korean diplomat in Vladivostok, Russia attributed to North Korean agents following a DPRK threat of “retaliation” for South Korea’s actions during the submarine incident (Fischer 2007, 13).
not intend to allow one of its submarines to be detected by the ROK,\textsuperscript{302} this incident reinforces the argument that North Korea was seeking international assistance without changing its aggressive military posture and activities against South Korea. Yet, despite this incident and others that occurred during this period, I find no clear relationship between North Korea’s hostile foreign policy actions and US presidential elections during this period.

**Question 8.** Were ROK/US strategic-level military exercises associated with increased hostile foreign policy activities? (Hypothesis 7)

I find partial support for this hypothesis when examining the relationship between DPRK activities and strategic military exercises. North Korea’s threat to withdraw from the NPT, one of the most significant North Korean HFP acts during this period, was a most likely in reaction to the restart of the 1993 US-ROK TEAM SPIRIT military exercises (Michishita 2010, 93). These exercises had been suspended in 1992 in both an attempt to bring North Korea into multilateral negotiations and efforts to get the DPRK to allow IAEA inspections (Michishita 2010, 93). The US and ROK jointly conducted TEAM SPIRIT exercises beginning in 1976 to exercise assistance to South Korea in the event of war with North Korea. Although TEAM SPIRIT was held in 1993, it was scheduled, then cancelled each year between 1994 and 1996 (Yoon 2003, 98) and has not been held since. Other ROK-US strategic-level exercises continued each year during the famine period, including ULCHI FOCUS LENS and FOAL EAGLE, and were focused on similar tasks, although not at the overall scale of TEAM SPIRIT (Yoon 2003, 99).

The North Korean leaders welcomed the suspension of TEAM SPIRIT but denounced the other ROK-US annual exercises as “the second TEAM SPIRIT” and an attempt to “stifle” the DPRK (KCNA 1995a and KCNA 1999a).\textsuperscript{303} Yet when examining the levels of hostile foreign policy during the exercise periods, I find little difference between the hostility levels during exercise periods and other times during the case study (see Appendix C). Thus, at least one significant North Korean event (the NPT withdrawal threat) occurred in reaction the ROK-US military exercises, although during other periods, the levels of hostilities generally did not vary in relation to those external events.

\textsuperscript{302} The official DPRK explanation was that the submarine had engine trouble in North Korean waters and drifted to the South Korean coast (Browne 1996).

\textsuperscript{303} In reality, although the other two biannual exercises were at a smaller scale than TEAM SPIRIT, the ROK and US also used those other exercises to rehearse the defense of the Korean peninsula against a North Korean attack.
Question 9. Was the presence of a conservative ROK government associated with increased HFP? (Hypothesis 8)

Although the presence of a conservative ROK leader was associated with increased HFP activities in Case 1, South Korea’s government type has little effect on conflict levels in Case 2. Two distinctly different ROK administrations ruled during this period: the conservative Kim Yong-sam administration (1993-1998) and the more liberal Kim Dae-jung administration (1998-2003). Based on the DPRK’s preference for Kim Dae-jung, both during the 1993 and 1998 elections (Lee 1992; Breen 1992; KCNA 1997), I expected hostility levels to be lower during the Kim Dae-jung presidency, beginning in 1998. As one of his first official acts, Kim Dae-jung announced his “Sunshine Policy,” a new South Korean foreign policy aimed at enhanced engagement with North Korea, which eventually led to a North-South summit in 2000 (Kim, D 1998). Kim Dae-jung (1998) stated the three key principles of his Sunshine Policy in his inaugural address: “First, we will never tolerate armed provocation of any kind. Second, we do not have any intention to harm or absorb North Korea. Third, we will actively push reconciliation and cooperation between the South and North beginning with those areas which can be most easily agreed upon.”

Yet despite the election of an ROK leader that seemed more open to negotiation with the DPRK, I find that the level of HFP between 1998 and 1999 is similar to the 1993-1997 timeframe (Appendix C). Although the pre-1998 period includes a number of significant events, such as the nuclear crisis and several infiltration incidents, North Korea continued to conduct HFP actions after Kim Dae-Jung was elected. These include North Korea’s missile program development and testing, nuclear program actions (fuel reprocessing), and continued infiltration operations (Fischer 2007; KINU 2012). After analyzing actions across both administrations, North Korean hostile foreign policy activities did not change with the arrival of a more liberal ROK president.

4.c.3. Summary and Case Study Conclusions

In October 2000, the Kim regime publicly declared that the “Arduous March” (famine) had ended (Kwon and Chung 2012, 173). Kim Jong-il’s efforts to pursue “emergency management” measures, which involved the acceptance of international food aid, shifted the population’s focus away from ideology and towards solutions to the famine (McEachern 2010,
Because of this shift, ideology now became one of many guiding factors for decisions made by the regime, rather than the sole focus of internal and foreign policies (McEachern 2010, 74). During the famine, international food aid supported up to one-third of North Korea’s population (8 million people) (Haggard and Noland 2007, 90), yet both the famine and international intervention had lasting effects on North Korean society.

North Korea’s famine seemed to provide a perfect opportunity for diversionary behavior. The domestic distress caused by economic and social instability should have spurred the Kim regime to engage in diversionary behaviors and heightened levels of hostile foreign policy against its neighbors (Gelpi 1997, 256; Miller 1995). As discussed previously, while the overall levels of DPRK hostile foreign policy activities were below historic norms (see Figure 4.7) during the famine period, the Kim regime did strive to use conflict activities to force international concessions, scapegoat external states and, to a limited extent, distract North Korea’s domestic audience.

In many respects, North Korea’s pursuit of self-reliance limited its own capacity to reach out for assistance (either through purchase or international aid) (Haggard and Noland 2007, 23) and when food shortages occurred, the DPRK could not rely on Cold War mechanisms to respond. During the famine, North Korea did use hostile foreign policy actions to alleviate the insecurity effects of the famine and to ensure the Kim regime remained in power, although the overall HFP levels were at historic lows. The following table shows the results of this analysis.

Table 4.4 Structured Analysis Results: The Great Famine (1993-1999)

<table>
<thead>
<tr>
<th>Category</th>
<th>Question</th>
<th>Test Result</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent Variable (HFP)</td>
<td>1. What was the level of hostile foreign policy during the case study?</td>
<td>Low</td>
<td>Conflict scores were lower than historic norms and averaged 601 per year.</td>
</tr>
<tr>
<td>Internal Conditions</td>
<td>2. Was political instability associated with heightened HFP activities? (H1)</td>
<td>No</td>
<td>Instability occurred but no links to HFP were found.</td>
</tr>
<tr>
<td>Independent Variables (Proposition 1)</td>
<td>3. Were economic difficulties associated with increased HFP? (H2)</td>
<td>Yes</td>
<td>North Korea conducted nuclear provocations and missile launches in conjunction with efforts to obtain</td>
</tr>
</tbody>
</table>

304 The average yearly conflict score between 1960 and 2011 was 735 (see Appendix C).
4. Was social instability associated with periods of increased HFP? (H3)
   | No | Although social instability was present throughout, there was no identifiable link between social instability and external conflict.

5. Were UN resolutions against the DPRK associated with increased HFP? (H4)
   | No | Although the UN enacted a resolution, there was no relationship to conflict.

6. Were ROK leadership changes associated with increased HFP actions? (H5)
   | Yes | The DPRK increased HFP actions in a direct effort to affect the elections.

7. Were US leadership changes associated with increased HFP actions? (H6)
   | No | Although the DPRK commented on the campaign, there was no evidence it attempted to pursue HFP to influence the outcome.

8. Were ROK/US strategic-level military exercises associated with DPRK hostile actions? (H7)
   | Yes | In at least one instance (NPT withdrawal), there was a direct link between HFP and military exercises.

9. Was the presence of a conservative ROK government associated with increased HFP? (H8)
   | No | Conflict was consistent across South Korea’s conservative and liberal governments.

During high levels of domestic distress (such as those caused by the famine in this case study), diversionary theory predicts that heightened levels of conflict would occur. Yet, the levels of HFP action that occurred during the famine case study period were much lower than historical averages. As shown in Table 4.4, the only relationship found between internal conditions and external conflict was between economic distress and North Korea’s use of its ballistic missile and nuclear programs to force international economic concessions. Yet both social and political instability occurred throughout the famine period (food shortages, population migrations, and the death of Kim Il-sung), yet these were not linked to significant increases in hostility actions. But there were relationships between at least two of the external influences and HFP actions in support of P2. These included linkages between HFP activities and both ROK leadership changes and strategic exercises by the South Korean and US military forces.
Surprisingly, the presence of a more liberal ROK leader accompanied increases in HFP activities.

Throughout the famine period Pyongyang’s efforts at nuclear and ballistic missile development did help the Kim regime to distract its own citizens, while concurrently presenting the international community with a security crisis. However, there was no corresponding increase in the overall levels of HFP. North Korea’s efforts to develop nuclear weapons were also related to efforts to obtain the security advantages of becoming a member of the “nuclear club.” Domestically, this also provided the Kim regime with a both an apparent deterrent from external attack and a rallying point for DPRK citizens. In discussing the development of nuclear weapons, North Korea’s official news outlet stated

It is only too natural that we took a self-defensive measure some time ago to deter a war beforehand and defend peace and security in face of the worst situation…the outbreak of war…on the Korean peninsula (KCNA 1996a).

The nuclear crisis and its resolution also provided Kim Jong-il with “his own myth of national rescue” as North Korea’s internal propaganda credited the 1994 Agreed Framework breakthrough solely to the “Dear Leader’s” negotiation skills (Myers 2010, 51). From a practical standpoint, nuclear weapons provided Kim Jong-il with a means for the DPRK to maintain its international standing (Demick 2010, 66). The nuclear crisis negotiations, which caused the temporary US resumption of its “TEAM SPIRIT” exercise in 1993, also enabled Kim Jong-il (with his father’s blessing) to issue a national order to “alert the entire North Korean armed forces for any eventuality and to put the entire nation and the people on a semi-war footing” (Suh 1993, 61; Yonhap News Agency 2003, 992). Domestically, the Kim regime fostered a sense of hatred and tension based on the actions of the US and its allies resulting in an atmosphere of national emergency. As Michishita (2009, 115) notes, “North Korea’s nuclear diplomacy might have worked to divert people’s attention away from domestic difficulties,” such as domestic instability over food shortages and political unrest. The crisis also helped to maintain the Kim regime’s grip on power domestically and was most likely intended to help bolster public support

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305 In 1993, the “nuclear club” only included the five signatories to the NPT (the US, China, Russia, Great Britain, and France) and two non-NPT states (Israel and India) (Norris and Kristensen 2010, 82; Sagan 1996, 59)
for the regime. While diversion was not the only purpose of the Kim regime’s endeavors to develop nuclear capabilities, it was one among many effects of that effort.

In May 1993, after the launch of its No Dong missile, “North Korea showed its first signs of using missiles as a diplomatic tool” Michishita (2009, 118). While the No Dong program was likely focused on pressuring the US and South Koreans during the nuclear negotiations, the DPRK intended the Taepodong program to influence both domestic and international audiences. Despite the apparent failure of the 1998 Taepodong missile to achieve orbit (Pinkston 2008, 25), the event became a source of national pride, with a launch video appearing on North Korean and international television repeatedly during the weeks that followed. The Taepodong-1 launch “worked as a catalyst, giving new momentum” to the ongoing missile and nuclear talks between the US and North Korea (Michishita 2010, 123). Thus, North Korea was able to use this event, like so many of its other foreign policy actions, for several purposes, namely creating international pressure for negotiations and domestic diversion during the famine period.

North Korea’s other military activities, such as its infiltration operations, were also indirectly linked to domestic concerns. The DPRK’s ongoing efforts to maintain its military posture sent a clear sign to its military establishment that the Kim regime valued their defense efforts. Intensified defense training events (such as the Winter Training Cycle exercises in 1996-1997), military weapons displays and parades, and the Songun (military first) policy were all efforts to increase military morale in hopes of improved domestic stablity (Yonhap 1997a; Yonhap 1997b). Additionally, these events potentially helped divert public attention from the ongoing famine and the defection of North Korea’s “father of the Juche Ideal”: Hwang Jang Yop (Yonhap 1997a). The historic role and integration of the military in North Korean society, referred to by Kim Il-sung as an “instrument of socialism” (Vreeland 1976, 316), made the sustainment of that institution critical to the survival of the regime. Thus, the Kim regime’s efforts to placate the military during the famine enabled the DPRK to maintain social and political control over the state.

The June 1999 naval Battle of Yeonpyong was the most aggressive conventional military action undertaken by the North Koreans during this period and was another example of the Kim

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306 Author observations while working in Seoul in 1998.
regime dealing with multiple concerns through a single provocative event. After the clash, North Korea stated,

As a result of the [South Koreans”] reckless provocation, our People's Army soldiers' lives were threatened gravely, a warship of our side was sunk, and three other warships were damaged severely….The enemy's armed provocation in the West Sea did not expand into a full-scale war entirely because of our People's Army soldiers' extreme patience and self-restraint (KCBN 1999).

In this case, North Korea publicized this event as an unwarranted provocation, which helped reinforce the national position that external forces continued to cause economic and social problems within the DPRK. The Kim regime repeatedly issued public statements claiming, “war might break out at any time” (KCNA 1999c). This incident, along with ongoing military activities on both sides of the DMZ helped reinforce the constant state of political crisis that the Kim regime sought to foster during the famine period. This sense of national emergency and continued military conflict with both the US and ROK helped maintain Kim Jong-il’s position as undisputed leader of the DPRK and usher in his era of “military-first” policies (Michishita 2010, 160).

Thus, these types of efforts to unify the public’s support of the Kim regime were present during the famine. Other measures the Kim regime used to weather the domestic crisis (not explored in this dissertation) included the DPRK’s adroit control of the media, maintenance of secure borders, and its willingness to accept international aid. These measures helped ensure the Kim regime remained in power. The Kim regime also engaged in ongoing hostile foreign policy activities while simultaneously seeking economic and humanitarian assistance for its people. This type of dual track diplomacy worked well for the Kim regime as it was able to survive the “Arduous March” intact. The DPRK secured future guarantees of economic and developmental aid, which also supported the Kim regime’s grip on power. North Korea did this while retaining its ability to continue to threaten regional and international stability, a characteristic that provided distinct advantages both from a security and negotiation standpoint. This threat to the international community served to ensure that North Korea continued to portray itself as a “strong” independent state to both domestic and international audiences. As Noland (2000, 10) stated, “The threat that North Korea poses is its sole asset. It is unlikely to negotiate away this asset very easily.” Hostile foreign policy activities and diversionary-type behaviors, while not
the only measures the DPRK used to deal with the catastrophic effects of the famine period, were both necessary for the Kim regime’s survival during this crisis.

Figure 4.11 Timeline: North Korea's Great Famine (1993-1999)

<table>
<thead>
<tr>
<th>North Korean Events</th>
<th>US-ROK Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>DPRK withdraws from the NPT</td>
<td>Kim Young-sam elected ROK President</td>
</tr>
<tr>
<td>Nuclear crises</td>
<td>1993</td>
</tr>
<tr>
<td>Signs of pending famine</td>
<td>UN Security Council Resolution 825 enacted</td>
</tr>
<tr>
<td>Death of Kim Il-sung</td>
<td>Agreed Framework initiated</td>
</tr>
<tr>
<td>Kim Jong-il becomes DPRK leader</td>
<td>1994</td>
</tr>
<tr>
<td>PDS breaks down</td>
<td>Food aid provided to DPRK</td>
</tr>
<tr>
<td>Harvest lost due to flooding</td>
<td>1995</td>
</tr>
<tr>
<td>Famine begins</td>
<td></td>
</tr>
<tr>
<td>DPRK publicly acknowledges famine</td>
<td>International aid workers present throughout DPRK</td>
</tr>
<tr>
<td>DPRK sub grounded on ROK coast</td>
<td>1996</td>
</tr>
<tr>
<td>Large-scale population movements</td>
<td>US President Bill Clinton reelected</td>
</tr>
<tr>
<td></td>
<td>More food aid provided to DPRK</td>
</tr>
<tr>
<td>Famine eases</td>
<td>1997</td>
</tr>
<tr>
<td>Taepo Dong I missile launch</td>
<td>Kim DJ elected ROK President</td>
</tr>
<tr>
<td></td>
<td>Japan, ROK and US impose sanctions</td>
</tr>
<tr>
<td></td>
<td>1998</td>
</tr>
<tr>
<td>Famine ends</td>
<td>Food aid levels drop, but quickly return to previous levels</td>
</tr>
<tr>
<td>Battle of Yeonpyeong naval clash</td>
<td>1999</td>
</tr>
</tbody>
</table>

Meet the new boss, same as the old boss.

_The Who (1971)_

In this final case study, I examine the conditions North Korea experienced between 2008 and 2011 in relation to the Kim regime’s use of hostile foreign policy activities. This case includes efforts by the Kim regime to set the stage for the second communist "dynastic" succession from Kim Jong-il to Kim Jong-un, continued internal economic distress, and a number of provocative events such as North Korea’s second nuclear test. Under these circumstances, diversionary theory predicts that the internal distress surrounding the Kim regime's succession and chronic economic difficulties should spur increased external conflict behavior. I find that some of the internal conditions support P1 evidenced by connections between economic conditions and both the onset of a period of hostilities between the Koreas and the overall levels of HFP activities during the study period. I also find support for P2 in comparing the relationships between UN resolutions and military exercises and increases in DPRK hostile foreign policy activities.

I chose this case in the same manner as the famine study, using Goertz and Diehl’s (1995, 31) concept of “political shocks” to North Korea’s domestic conditions and its effect on the international system based emergence of Kim Jong-un and other events surrounding the Kim regime’s succession. North Korea’s concerns over the succession were related to increased HFP actions during this period, including nuclear tests, missile firings, and direct clashes with South Korea. In the following sections, I include an overview of the case, explore the same set of focused questions, and conclude with a summary and analysis of the results.\(^{307}\)

4.d.1. The Kim Regime Endures

North Korea’s experiences during the 2000s were filled with events just as dramatic as those described in the two previous case studies. After over 50 years of rule, the Kim family still retained power and remained firmly in control of most aspects of North Korea’s society. Additionally, after weathering the 1990s famine period intact, the Kim regime continued to concurrently seek aid and conduct provocative actions, to the dismay of the international

\(^{307}\) A timeline (Figure 4.15) is also enclosed at the end of this section for reference.
community. Hostile foreign activities included events such as nuclear weapons and missile tests, which significantly raised international tensions and spurred United Nations sanctions.

During this time, the DPRK attained unofficial membership in the “nuclear club” due to its weapons research program and nuclear weapons tests in 2006 and 2009. It also (again) withdrew from the Non-Proliferation Treaty: a sign that North Korea not only had nuclear weapons technology, but was willing to share it with other states. Additionally, North Korea conducted a series of short and long-range missile tests that began with "Silkworm" missiles fired from coastal batteries\(^\text{308}\) followed by longer-range missile tests, using systems such as the Taeopodong-2 that had "the theoretical capacity to reach the continental U.S." (Fischer 2007, 32). North Korea also engaged in conventional attacks in the Yellow Sea against ROK military and civilian targets and this incident was the first of its kind since the Korean War (Hom and Thompson 2010; Klinger 2010). These events indicated that North Korea’s security relationship with both the region and the international community had entered a new and much more dangerous phase.

At the same time, North Korea’s economy continued to flounder as the DPRK struggled in many areas, especially with an inability to feed its people. Finally, the North Korean leadership dealt with preparations for its second succession from father to son, as Kim Jong-il’s failing health spurred plans for the next Kim generation to assume control of the DPRK. Upon the “Dear Leader’s” death in December 2011, Kim Jong-il’s son took control.\(^\text{309}\) Moreover, the Kim regime remained focused on its primary goal of retaining power, regardless of the domestic or international implications. Between 2008 and 2011, the DPRK solidified its process of succession to the next Kim family member, maintained enough control over domestic conditions to ensure the regime remained intact, and continued to use hostile foreign policy actions against external states.

4.d.2. Structured Questions and Analysis

In this section, I use the same questions (based on the independent variables described above) to determine the relationship between conditions faced by North Korea, the DPRK’s

\(^{308}\) These missile firings, the first in five years, ended North Korea’s 1999 missile test moratorium which was brokered during negotiations on energy aid and the provision of two light water nuclear reactors to be built in the DPRK and funded by the international community (Fischer 2007, 25; Kimball 2012).

\(^{309}\) As of this writing, the transition to the newest member of the Kim dynasty, Kim Jong-un had gone relatively smoothly, which stands in stark contrast to the level of turmoil that surrounds the DPRK and its relationship with the international community.
hostile foreign policy activities, and whether diversionary theory helps explain these relationships. The following questions focus on North Korea’s most recent succession period between Kim Jong-il and his son, Kim Jong-un.

**Question 1. What was the level of hostile foreign policy activities during this period?**

Hostile foreign policy activity levels during this period are at levels not seen since the first case study and demonstrate that the Kim regime chose HFP as a means to achieve national goals. In fact, the incidence of conflict, along with the individual conditions of domestic distress that occurred during this period, provide generalized support to P1. The Kim regime entered the millennium politically intact and in firm control of civil society, despite the devastating effects of the famine of the 1990s. Yet the DPRK government also relied upon external aid to sustain itself and remained vulnerable to the conditions imposed by donor states. At the end of the famine period, North Korea desperately required both food and energy to “meet the minimum survival requirements of its population” (Noland 2000, 335). However, North Korea did manage to maintain a robust military force that was capable, at the very least, of defending the DPRK from external attack and not reluctant to conduct limited military engagements against South Korean forces. Thus, the DPRK continued to require international assistance while concurrently...
posing a threat to regional security. Figure 4.12 shows the level of DPRK hostilities during the 2000s, to include the case study period.

Figure 4.12 Hostile Foreign Policy Activities 2000-2011

![DPRK Hostile Foreign Policy Activities 2000-2011](image)

Source: Korean Conflict Database (Appendix C)

North Korea’s conflict levels between 2008 and 2011 are generally above the average level of conflict for the entire study period and at levels that approach the first case’s scores. Compared to historical averages, conflict scores between 2008 and 2011 are 61 percent higher than the average for the case study period (1960-2011).\(^{311}\) Conflict during this period also showed significant variations with both the nuclear tests and conventional military attacks against South Korea causing intensity scores to soar between 2009 and 2010.

Between 2008 and 2011, North Korea achieved the status of a “defacto” nuclear state as the Kim regime made visible strides towards the weaponization of its nuclear technology (Nanto and Chanlett-Avery 2010, 10). These developments concerned the international community, which feared not only North Korea’s security threat, but also potential reactions from nearby Japan and South Korea: an Asian nuclear arms race would likely destabilize the region (Gates

\(^{311}\) Conflict scores for this period (2008-2011) average 1188 per year while the historical (yearly) average is 735 (1960-2011) (Appendix C).
Beginning in March 2009, North Korea’s actions demonstrated it intended to proceed with its missile development program and its nuclear efforts. Additionally, the Kim regime demonstrated that it remained ready to use military and diplomatic actions to support both domestic and international policy objectives. A synopsis of the most intense conflict activities during the case study period follows.

**Missile Program and Launches.** North Korea’s continued efforts to develop missile technology provided a number of advantages for the Kim regime including testing of a possible weapons delivery platform for use against the US-ROK alliance, continued research and development for missile exports, and a domestic source of national pride. Beginning in the spring of 2009, after refusing aid and expelling UN workers, North Korea conducted a series of ballistic missile launches. The first was North Korea’s launch of a Taepodong-2 rocket in April (KCNA 2009c), which was both a legitimate attempt to launch a small (albeit non-functioning) satellite and a developmental step for the DPRK’s long-range missile technology efforts (Kimball 2012). Although the attempt failed (both the missile and its components fell into the sea), it demonstrated that the Kim regime had an active and potentially dangerous intercontinental ballistic missile (ICBM) program (Broad 2009). This launch demonstrated that North Korea intended to continue developing both its missile technology and its nuclear weapons program: both of the components required for an active long-range nuclear capability that could threaten not only the region, but also the continental United States (Wit 2011, 3; Broad 2009).

Subsequent launches followed in July 2009. While the regime touted these as examples of the North Korea’s scientific progress for its domestic audiences, the timing of these events occurred with DPRK efforts to seek direct negotiations with the United States and concessions from the international community (Asano 2009). In fact, the DPRK’s ballistic missile program, often portrayed as a serious threat to the peace and stability of the region, was most likely of limited capability and primarily used as a symbolic threat for political purposes.

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312 The impetus for the expulsion was unclear, although US officials at the time linked it to the request for the UN’s World Food Program to send Korean-speaking food aid monitor personnel (intended to ensure the proper distribution of food) (Na 2009). Additionally, there was speculation that the program was shut down due to overall deterioration in relations between the DPRK and both the US and ROK (Manyin 2012, 18).

313 These launches occurred on July 2-4, coincided with America’s “Independence Day” holiday, and included a mix of short and intermediate range missiles (Kyodo 2009). North Korea also launched a similar number of missiles on July 4-5, 2006 and Schiller (2012, 60) argued that these events were clear political signals to the United States in efforts to influence ongoing diplomatic actions.
Thus the international community’s reaction to North Korea’s April 2009 missile launches with additional sanctions, rather than continued negotiations, was one of the influential factors that prompted the Kim regime to demonstrate its other, much more dangerous, “symbolic” threat: North Korea’s nuclear weapons capabilities.

_Nuclear Program._ Pyongyang viewed the development of nuclear technology as providing two distinct advantages: increased respect from the international community and a “credible deterrent” against external attack (Nanto and Chanlett-Avery 2010, 14). In May 2009, the Kim regime gained the world’s attention when it restarted its nuclear program (Landler 2009). Unconfirmed reports claimed that the DPRK had manufactured “small nuclear warheads” that were compatible with its No Dong missiles (Chosun Ilbo 2009), but North Korea’s proclaimed resumption of its nuclear program and expulsion of inspectors did not arouse widespread concern about a pending nuclear test. Nevertheless, at the end of April, the Kim regime stated that it was preparing to conduct “nuclear tests and test-firings of intercontinental ballistic missiles” in response to UN Security Council Sanctions (Fedchenko 2009, 1; KCNA 2009g).

In late May 2009, North Korea announced that it conducted a successful underground nuclear test “as part of the measures to bolster up its nuclear deterrent for self-defence” (KCNA 2009h). The US confirmed that the DPRK conducted its second nuclear test at the same location as 2006 (at the P’unggye facility) with the yield of “approximately a few kilotons” (DNI 2009). This test was larger than the previous one with a yield of up to seven kilotons, estimated as “about five times stronger” than the detonation in 2006 (Fedchenko 2009, 3).

The international community, led by the US and Japan, responded by beginning to work on a draft UN Security Resolution to tighten sanctions. Additionally, South Korea joined the

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314 Schiller (2012, 20) contends that North Korea primarily uses its missile technology to “create the illusion of a sophisticated threat for domestic and foreign policy reasons.” He also notes that the maximum threat posed by North Korean missiles is limited to 1,000 kilometers and DPRK systems with longer ranges “seem not to be operationally deployed or sufficiently reliable” (Schiller 2012, xvi).

315 In fact, prior to the May 25, 2009 test, open source international press reporting made no apparent mention of a nuclear test preparations (LexisNexis 2013).

316 North Korea reportedly informed the US and China that it would conduct a nuclear test one hour prior to the event (Fedchenko 2009, 1; AFP 2009a). At least according to one report, U.S. officials admitted that the nuclear test “caught the United States by surprise” (Rosen 2009).

317 The DPRK also mentioned this test as part of heir-apparent Kim Jong-un’s “150-day campaign” which began on April 20, 2007 and was intended to “resolve food shortages and rebuild the country's antiquated infrastructure” (Yonhap 2009; KCNA 2009h). Western analysts speculated that this campaign was an attempt to refocus public attention away from Kim Jong-il’s health and questions about succession (Hoare 2012, 295-296).
Proliferation Security Initiative (PSI),\footnote{The PSI is a US-led “global effort that aims to stop trafficking of weapons of mass destruction (WMD)” and associated equipment through interdicting transfers of these types of equipment between states (US DoS 2013).} which a pending UN resolution ultimately strengthened (Choe 2009c). The next day, North Korea “called the [South Korean PSI] decision an act of war,” test launched at least two coastal defense missiles, and declared the 1953 Korean War Armistice null (Oh and Hassig 2010, 92; Harden 2009).\footnote{Pyongyang made the same declaration of nullification four times previously in 1994, 1996, 2003 and 2006 (Oh and Hassig 2010, 92; Harden 2009).} These events, and the missile launch in April, demonstrated the advancing threat posed by North Korea to the region. Although these actions were taken seriously, the test or use of a nuclear weapon by the DPRK had the potential for significant local damage on Korean soil. Additionally, the actual use against the United States potentially would incite efforts to destroy the Kim regime, or at least respond with similar measures.\footnote{The oft-repeated quote attributed to US Secretary of State Condoleezza Rice was that if North Korea were to attack the US or its allies with a nuclear weapon, the US would respond decisively and turn North Korea into a “parking lot” (Natsios 2013).} Thus, while North Korea’s test and threats associated with its nuclear program were disconcerting to the US and its allies, these were actually “empty gestures” and simply a technique to force negotiations in hopes of international concessions. The Kim regime had too much to lose by actually using the nuclear weapons it was developing.

The nuclear and missile tests served a wide range of purposes for the regime, both as a signal to the international community that North Korea requires attention and domestically, that the DPRK faces external threats so dangerous that its only option is a “nuclear deterrent” (KCNA 2009h). As Nanto and Chanlett-Avery (2010, 14) observes

> Without the DPRK nuclear program, North Korea would be a humanitarian aid “basket case” and a reclusive society that would be hard pressed to draw more world notice than countries such as Laos or Mongolia. Instead, North Korea is high on the world’s security agenda. Pyongyang has become adept at using this attention to extract economic assistance and has used actions by other countries (such as sanctions or U.S. military exercises in the region) as propaganda tools to fuel nationalism and strengthen support for its regime.

Thus, the Kim regime’s efforts to maintain and further develop its nuclear capabilities should have been of little surprise to external observers. Nuclear capabilities provide a means to ensure the DPRK maintains its sovereignty, domestic stability (through both the emphasis on external threats and the acquisition of aid), and that the Kim regime remains high on the agendas

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of the key powers in the region. The test in May 2009 was a clear sign that North Korea had “no serious intention of negotiating away its nuclear capability” and that the world must accept North Korea as a nuclear state (Haggard 5, 2012). For the North Korean public, the nuclear program was a demonstration of how dangerous the world really is for the DPRK and helped the Kim regime justify “continued sacrifices by and harsh treatment of its people” (Heckler 2010, 51).

Next, North Korea's efforts to engage the world took another turn: the DPRK embarked upon a “charm offensive” which sought to improve dialogue with the US, South Korea, and China (Japan Times 2009; Nanto and Manyin 2010). In August 2009, the North Koreans hosted former US president Bill Clinton and he successfully obtained the release of two American journalists held in North Korea since March 2009 (KCNA 2009i). The Kim regime also held meetings with the head of the South Korean conglomerate Hyundai, discussed a willingness to reopen Mount Kumgang for tourism, began hinting it would return to the Six-Party Talks, and concluded an agreement with Chinese Premier Wen Jiabao for substantial levels of food aid (Oh and Hassig 2010, 95). Yet these events were part of a predictable cycle in which the DPRK conducted provocative activities, sought negotiations and aid, and then returned to hostile actions when diplomatic progress stalled (Nanto and Manyin 2011, 96). In this case, the return to deadly hostile foreign policy actions occurred just a few months later.

The Kim regime’s diplomatic shift lasted through the beginning of 2010, and the Kim regime’s annual New Year’s Message sounded “less bellicose” than in previous years (Foster-Carter 2010a, 76), stressed the importance of the historic June 2000 North-South summit, and emphasized that “National reconciliation and cooperation should be promoted actively” (KCNA 2010a). Just two weeks later, North Korea resumed hostile foreign policy statements, reportedly in reaction to press reports of discussions between the US and South Korean administrations on contingency plans concerning the DPRK: the Kim regime charged that the US and South Koreans had drafted a “scenario for toppling the system in the DPRK…with an aim to bring it to a ‘collapse’” (KCNA 2010b; Kim, S. 2010). North Korea’s actions during this time were among the most serious seen on the peninsula since the 1960s and the conventional attacks against naval and ground targets were the most deadly since the Korean War. North Korea’s recent nuclear test, continued missile firings, and these attacks constituted a heightened period of hostilities on the peninsula, but followed previous DPRK patterns of state conduct.
The Sinking of the Cheonan. The Yellow (West) Sea and the NLL continued to be an area of both interest and tension between not only the two Koreas, but with Chinese fishermen who routinely worked along the boundary areas in search of crab and a variety of fish (Van Dyke 2003, 149; Yonhap 2013a). The Yellow Sea area includes South Korea’s shipping routes to China and North Korea and a number of islands claimed by both the ROK and DPRK. Additionally, the area represents a consistent security challenge for South Korea and includes a significant DPRK and ROK naval presence. North Korea’s navy has routinely used the area to insert special operations agents for operations against the South (Roehrig 2008, 25-26) Due to these considerations, South Korea maintained an active military presence along the NLL and routinely conducted maritime patrols in the area.

In November 2009, the ROK navy exchanged fire with a North Korean vessel that crossed the NLL near Daecheong Island (see map in Appendix F) (Kim J. 2010). The DPRK ship sustained heavy damage and retreated back across the border line and the North Koreans sustained at least four casualties (one killed and three wounded personnel) while South had none (CSIS 2010, 5). The South Koreans sent additional naval vessels to the area and stated “This is a regrettable incident in which the North targeted the South” while the North Koreans called the incident a “deliberate and premeditated provocation” and demanded an apology (KCNA 2009j; KCNA 2009k; Kim J. 2010). In any case, the incident did not escalate was not disruptive enough to prevent a pending visit by President Obama to South Korea and ongoing direct negotiations between North Korea and the US on the nuclear issue (AFP 2010; Choe 2010a).

Tensions receded and it was not until the events of mid-January that relations again began to deteriorate between the Koreas, although North Korea demonstrated both belligerence and a willingness to accept international aid. For the first time in two years, North Korea received food aid from the South, consisting of 10,000 tons of maize, while concurrently denouncing the South’s discussion of “collapse scenario” contingency plans (Foster-Carter 2010a, 77-78). Three days later, the Kim regime announced that it would not return to the Six Party Talks unless international sanctions were lifted and called for an agreement to permanently replace the 1953 Armistice (KCNA 2010c). In late January, tensions also increased as the DPRK began

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A description of the history of the NLL is included in the Famine case study above in the section entitled the “The Battle of Yeonpyeong.” Additionally, a map of this area is included in Appendix F.
conducting a series of naval training drills on the North Korean side of the NLL near the ROK-held islands of Baeknyeong and Daechaeong (Foster Carter 2010a, 78).

In mid-February, the South Koreans reported that the DPRK increased naval drills and reinforced the coastal areas with additional artillery (including multiple rocket launchers) (Yonhap 2010b). Additionally, at the end of February, the North Koreans began criticizing both the South Koreans and US over the pending “KEY RESOLVE-FOAL EAGLE” exercise (slated to begin a few weeks later) stating that the event included “operations and nuclear war exercises aimed to preempt a surprise attack on the DPRK” (AFP 2010; KCNA 2010j). At the same time, analysts predicted that “absent foreign aid North Korea will be 1.2 million tons short of its food needs this year” (Foster-Carter 2010a, 88). Thus, by mid-March 2010, North Korea had not participated in the Six Party Talks since June 2008 (Liang 2012), it increased its military presence near the NLL in the west, and faced significant food shortages in the coming months. Conditions were ripe for another spectacular event to force a new round of negotiations.

In mid-March 2010, a South Korean navy patrol craft, the Cheonan, left the ROK port of Pyeontaek on a routine patrol mission (ROK MND 2010, 36). At approximately nine p.m. on 26 March, there was an onboard explosion and the Cheonan sank, resulting in the deaths of 46 of the 104 crew members onboard (Bechtol 2010). Two months later, after an extensive investigation, the ROK’s Ministry of National Defense concluded that North Korea attacked and sank the Cheonan using a submarine-launched torpedo (ROK MND 2010, 220). Additionally, US Secretary of State Clinton charged “The evidence is overwhelming and condemning. The torpedo that sunk the Cheonan ... was fired by a North Korean submarine” (Lee 2010). In April 2010, North Korea denied the charges, stating that it was a “regretful accident” and after the ROK MND report was issued, the Kim regime declared that a “state of war” existed (KCNA 2010d; KCNA 2010e).

Assuming that the DPRK conducted the attack (and all evidence, including testimony from a DPRK defector, implicated the Kim regime), this was the most serious direct attack against the ROK military since the Korean War and demonstrated both North Korea’s “asymmetric” military capabilities and willingness to conduct this type of operation (Cha and Kim 2010, 2; Korea Times 2012). The UN Security Council discussed the Cheonan sinking, but

322 The Cheonan was assigned to the 2nd ROK Fleet and was a 1,200-ton corvette-class vessel built in 1989 (Han 2010).
China refused to approve any language that blamed North Korea, and the final proclamation simply condemned the attack and noted South Korea’s restraint in the matter (UNSC 2010; Cha 2012, 334-335). South Korea’s reaction to the sinking included the cessation of almost all trade with North Korea (with the exception of the Kaesong Industrial Complex), implementation of additional sanctions (along with the US) and ROK participation in the PSI (Hoare 2012, 85; VOA 2010b). Additionally, the US and South Koreans conducted an unprecedented show of force operation, dubbed “INVINCIBLE SPIRIT,” in the Yellow Sea which included a mixture of over 20 ships and submarines, 200 aircraft, and 8,000 personnel (CNN 2010a; Fackler 2010).

Aside from rhetoric in the North Korean press, there was no overt military response from the DPRK to these exercises (KCNA 2010f).

The Shelling of Yeonpyeong Island. By the end of the summer, the tense atmosphere engendered by the Cheonan attack seemed to recede and the two Koreas seemed to experience a slight thawing of relations. While the majority of trade between the North and South stopped, the Kaesong Industrial Complex continued to operate, with virtually no effects seen because of the Cheonan attack (Foster-Carter 2010b, 3). Although the ROK and US continued to conduct their annual fall military exercises (including ULCHI FREEDOM GUARDIAN), the North Korean responses were limited to public condemnations with no significant increase in hostile foreign policy actions (KCNA 2010g; KINU 2011; UNC 2012). In October 2010, South Korea provided 5,000 tons of rice aid in response to seasonal flooding two months earlier and the Koreas conducted family reunion meetings for the first time in over a year (Kim K. 2010; ROK MOU 2010).

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323 Song (2011, 1135) contends that that Beijing’s first priority is stability in the DPRK and as long as DPRK actions do not potentially cause circumstances that might result in US military retaliation, China will be reluctant to engage in actions it considers destabilizing (such as UN resolutions condemning the North).

324 In fact a South Korean government report stated that the “Kaesong Industrial Zone was almost unaffected by the Cheonan incident. Output at the zone in July was worth $26.4 million, only slightly down from $26.5 million in June and $28.1 million in April” (Foster-Carter 2011a, 12; Yonhap 2010c).

325 In one of many responses, the DPRK government stated “The large-scale DPRK-targeted war maneuvers staged by the South Korean puppet forces one after another in collusion with the U.S. are very grave military provocations, little short of a declaration of war against the DPRK” (KCNA 2010g)

326 For example, the only two military events during this period included North Korea’s firing of over 100 artillery rounds into the sea near the NLL in early August 2010 and a DMZ incident in October with only a few rounds fired and no injuries (KINU 2011; UNC 2012).

327 This is a relatively small amount compared to the previous support provided by Seoul (as much as 500,000 tons of rice per year), but it was the first aid provided by the South in over two years (Foster-Carter 2011a, 3).
While these events demonstrated the North Koreans’ willingness to cooperate with the South, at least in some areas, the Kim regime also faced a significant amount of domestic pressure. Shortages of critical supplies continued as the World Food Program observed that the DPRK had difficulty with food and medical supplies because of both the 2009 currency reform and the August 2010 floods (Kyodo 2010a). Additionally, the North Koreans continued to call on the South to allow for renewed tourism at the Mount Kumgang Resort, which the South Koreans disallowed for over two years (Foster-Carter 2011a, 16). While this remained a difficult time for the North Koreans, they continued to actively engage the ROK in negotiations and there were few indications that another deadly hostile foreign policy event was about to occur.

South Korea’s military began its annual “Hoguk” amphibious training exercise in November 2010 with over 70,000 participants in both the Yellow Sea and along the ROK’s west coast. On the same day, Kim Jong-il and Kim Jong-un reportedly visited the DPRK’s southwest coast and may have visited a number of artillery units in the area (KCNA 2010h; Joongang Daily 2010). The following afternoon, the North Koreans conducted a rocket artillery attack against the South Korean-occupied island of Yeonpyeong; the North fired approximately 120 rockets and the South responded with 80 rounds of artillery (CNS 2010). The attack left four South Koreans dead (two civilians and two ROK marines), 18 injured, 22 buildings destroyed, and resulted in the evacuation of most of the island’s 1,900 residents by the South Korean navy (Yonhap 2010d; Korea Times 2010; CNN 2010b). It was unclear if the South Korean artillery caused any damage to North Korean personnel or facilities (JEN 2010).

North Korea commented on the incident, stating that it fired in self-defense, responding to South Korea’s artillery that fell on the DPRK side of the “maritime border” (Xinhau 2010; KCNA 2010i). In fact, the North Koreans warned the South not to conduct live fire exercises in the area and the DPRK artillery attack occurred at the end of ROK maneuver exercises in the area (Song 2010). At the same time there were unattributed South Korean government reports that Kim Jong-il and Kim Jong-un personally ordered the attack during their visits to the area the

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328 The US had been scheduled to join the ROKs with navy and marine personnel, but a few days prior to the exercise, announced it would not participate due to “scheduling issues” (Jung 2010).
329 The artillery exchange involved North Korean 120mm rocket launchers and South Korean K-9 self-propelled artillery (CNS 2010). This was the first artillery exchange of its kind since the 1960s.
330 The ROK military had previously announced these exercises (including the live firings) as it had done during similar events in the past (Hoare 2012, 407).
day prior and North Korean military propaganda documents surfaced that linked the attacks to Kim Jong-un (Joongang 2010; Chosun Ilbo 2011c).

South Korea’s response was to immediately increase security levels, ban all travel to North Korea, cancel pending Red Cross talks, cease all pending aid to the DPRK, and to adjust the “rules of engagement” to allow for more decisive military responses in the future (Foster-Carter 2011a, 7; Fackler and McDonald 2010). The ROK did not conduct a retaliatory military response (aside from naval exercises in the area), although after the Cheonan sinking, President Lee declared that South Korea would “immediately exercise our right of self-defense if their territorial waters, airspace or territory are violated” (Armstrong 2010; CNN 2010c). China’s reaction, which included blocking a UN resolution condemning the Kim regime for the attack, was seen as an “enabling response [which] appeared to write North Korea a blank check for further provocations” (Snyder and Byun 2011, 78). The US also condemned the attack, and conducted two large-scale joint naval exercises with both South Korea (near the location of the attack) and Japan (off the east coast of Korea) (Foster-Carter 2011a, 8; Kyoto 2010c).

In contrast to the Cheonan sinking, North Korea immediately took full credit for this incident and on its two year anniversary, publicly celebrated the “Victorious Yonphyong Island Shelling” (KCNA 2012a). As with the Cheonan sinking, determining the motivation behind this event is difficult, but it was most likely associated with domestic efforts to solidify Kim Jong-un’s place as the future ruler of North Korea (Chosun Ilbo 2011c) and concurrent work to restart negotiations with the South on aid and economic concerns. Kim Jong-un’s lack of military experience probably made his visible involvement in Kim Jong-il’s military decisions essential to establish credibility, just as his father had done under Kim Il-sung. At the same time, progress between the Koreas on economic issues (such as trade and the reopening of the Mount Kumgang Resort) stalled (Foster-Carter 2011a, 4-5) and this action might have been considered a means to break the negotiations impasse.

The Cheonan sinking and Yeonpyeong shelling demonstrated the difficult situation that South Korea historically found itself in when responding to DPRK hostile military actions. While a military response by the ROK might seem like the most logical reaction, most analysts

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331 In a 2013 interview, President Lee stated that he had ordered the South Korean military to attack North Korean targets, but that “a high-ranking military official blocked him, saying that the Air Force mustn’t get involved per the rules of engagement, and that they needed to consult with the Americans” (Keohler 2013; Chosun Ilbo 2013a).
(and most likely the South Korean government) note that retaliation against North Korea would result in additional DPRK aggression (Kang 2010). Yet the South Koreans have not conducted known conventional retaliatory actions since the 1960s and instead relied on diplomatic and economic means to deal with DPRK since that time. The ROK government (and the international community) historically took the view that any military action against North Korea will lead to war on the Korean peninsula and this belief shaped South Korean responses to these types of spectacular events (McDevitt 2011). The DPRK leaders observed this South Korean (and international) behavior over the past few decades and have become exceedingly adept at conducting hostile foreign policy actions short of war that further their policy goals with little fear of military retaliation (Kaplan and Denmark 2011). These heightened levels of HFP approached the levels seen during the 1960s and again pushed the peninsula towards the possibility of war.

**Question 2. Was political instability associated with heightened HFP activities? (Hypothesis 1)**

North Korea’s political system was significant stress as Kim Jong-il’s health failed and the DPRK leaders worked to set the stage for transition to Kim Jong-un. At the same time, political instability did not threaten the Kim regime’s grip on power and I find no direct link between political instability and conflict. Historically, despite domestic difficulties, there were few incidents of “dissatisfaction or opposition” directed at the Kim regime (Nanto and Chanlett-Avery 2010, 14 and KINU 2011b, 290-291). In the 2000s, there were sporadic reports of social unrest, especially associated with Pyongyang’s decision to revalue its currency in 2009, but these were localized and their effects were limited to changes in the Kim regime’s policies rather than wide-ranging indications of instability (Choe 2009a and KINU 2011b, 56). The DPRK’s successful policies of oppression eliminated many of the conditions necessary for social revolution and, “The North Korean people may be hungry, may despise Kim Jong-il, and may envy their rich neighbors, but the people are unlikely to mobilize” (Byman and Lind 2010, 70).

During this time, the North Korean system of societal control remained intact, and substantial political difficulties faced by the regime during the succession period were not

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332 The unauthorized gathering of individuals in an assembly is strictly prohibited by North Korean law and can result in up to sentences of up to “5 years of correctional labor” (KINU 2011b, 291).

333 Additionally, there were DPRK refugee reports of at least four executions of individuals accused of protesting against the 2009 currency reform (KINU 2011b, 542).
apparent to outside observers. The Kim regime most likely eliminated any high-level political dissent (associated with the arrival of Kim Jong-un) through reshuffling and promotion of key individuals during the Third Party Congress in September 2010 (Kim, J. 2011, 15). Additionally, changes were made at the provincial level as members who were older or considered “disabled” were redesignated as “honorary members” and replaced with younger individuals (in their twenties and thirties) in order to support the transition to Kim Jong-un (Ah 2012, 34-35). Despite the arrival of Kim’s relatively unknown son, and his rapid promotion as the future leader of the regime, there were few observable signs that North Korea’s military or elite opposed Kim Jong-il’s heir apparent (AFP 2012).

The regime’s success in maintaining order and retaining power during this period resulted from North Korea’s legacy of authoritarian rule and its use of “restrictive social policies; manipulation of ideas and information; use of force; co-optation; manipulation of foreign governments; and institutional coup-proofing” (Byman and Lind 2010, 45). As described later in this section, diversion became important for the regime, but only within the context of an overall system of control. Rumors began almost immediately after Kim Jong-il’s stroke in 2008 and in January 2009, reports surfaced stating that his youngest son was a possible choice for succession (AFP 2009c). Ahn (2011, 27) notes that Kim Jong-un’s succession “can be considered an extremely compressed version of Kim Jong-il’s” and included three stages: apprenticeship,
power sharing, and power transition.\footnote{For Kim Jong-il, the “apprenticeship” phase lasted from 1974-1980; from 1980-1991, a period of “power sharing” occurred; and from that point until Kim Il-sung’s death in 1994 was the “power transition” stage (Ahn 2011, 27).} The “apprenticeship stage” for Kim Jong-un in early 2009, when he registered for candidacy in the upcoming March parliamentary elections; in April 2009, Kim Jong-il named his son, along with Jang Sung-taek, to the National Defense Commission (Chang 2009; CNN 2009).\footnote{Just a few months later, reports surfaced that Kim Jong-il had pancreatic cancer (AFP 2009d), although during a visit in July 2009 by former President Bill Clinton (to secure the release of two American journalists), Kim was said to look “unexpectedly spry” (Landler and Mazzetti, 2009).} This stage of succession culminated in the September 2010 official “unveiling” of the next ruler of Korea after he was promoted to Vice Chairman of the Central Military Committee and four-star general (Ahn 2012, 33; Kwon and Chung 2012, 186).

From this point on, Kim Jong-un shared power with the elder Kim followed by his emergence (“power transition”) as leader of the DPRK in December 2011 (Ahn 2012, 27). The rise of at least three key figures provided the youngest Kim legitimacy in the DPRK power structure. Elevated along with Kim Jong-un were Jang Sung-taek (Kim Jong-il’s sister and her husband) and KPA Chief of Staff Ri Young-ho, who was reportedly “charged with securing the military's support for Kim Jong-un” (Kim J. 2011, 15; Choi and Shaw 2010, 189). According to some analysts, Jang was expected to assume the primary leadership role (Choi and Shaw 2010, 176) and possibly “relegate Kim Jong-un to the role of a figurehead” (Manyin 2012, 5; Economist 2011).

Many analysts predicted that the succession would result in internal instability and possibly might spell the end of the regime as a “leadership transition from Kim Jong-il to Kim Jong-un…promises even more disaffection in the party and military” (Klinger 2010; Cha and Anderson 2012, 21). Additionally, speculation persisted on how Kim Jong-un could effectively lead the reclusive state, given his age and lack of experience.\footnote{Yet the Kim family have been relatively young when chosen to lead, as Kim Il-sung was about thirty-three years old when he was chosen by the Soviets (Cha 2012, 76) and Kim Jong-il was approximately the same age when his father introduced the younger Kim as the next DPRK ruler. Thus the choice, rushed by Kim Jong-il’s ailing health, of a young successor as the next DPRK ruler somewhat followed similar events in North Korea’s past.} In fact, in March 2010, a DPRK analyst observed, “North Korea is on the verge of collapse…not only because of Kim's illness, the food shortage, and failed currency reform, but also because of a failed government” (Ramstad 2010). Another noted that after Kim Jong-il’s death, “The DPRK is now sailing into uncharted waters, formally under a greenhorn skipper whose seamanship is untested and
unknown” (Foster-Carter 2012, 1). Yet despite these dire predictions, the succession process had been underway since 2008, three years prior to Kim’s death in 2011. The Kim regime had been engineering the succession with “on-the-job training,” systemic changes, and personnel changes “to ensure that the young leader would have a supportive environment” (Revere 2011).

During the last year of Kim Jong-il’s life, there was a noticeable increase in Kim Jong-un’s public appearances, especially his participation in on-site inspections of civilian and military units, and being present alongside Kim Jong-il during state visits of foreign dignitaries (Kim B. 2011; Foster-Carter 2012, 12). Aside from seeking domestic support, Kim Jong-il visited both China and Russia during the succession period in order to “secure the assent of Beijing and Moscow to a second dynastic succession in North Korea” (Pollack 2011). Thus, when Kim Jong-il died at the end of 2011, efforts to place his son in a position to govern North Korea (with the help of an inner core of advisors) were well underway. Political instability did occur, yet I find no significant relationships between threats to the Kim regime’s grip on power and the level of HFP activities.

Question 3. Were economic difficulties associated with increased HFP? (Hypothesis 2)

Economic difficulties continued throughout the case study period and at least one incident (the sinking of South Korea’s Cheonan naval vessel) occurred right after the end of a “currency crisis” indicating a possible connection between these two events. Although the DPRK’s economy performed better than in the 1990s, it was still recovering from the famine period. During this time, North Korea became a state with an institutionalized need for foreign humanitarian aid. Despite heavy reliance on international aid, North Korea’s trade with China was at unprecedented levels and the DPRK seemed to continue to “muddle through.” While the Kim regime faced domestic challenges on a number of fronts during this period, its own political system and the framework of a pending succession to Kim Jong-il limited its reactions to these internal problems. Nevertheless, the Kim regime continued to exercise continuity in its

338 North Korea historically blames its economic problems on two key factors: the loss of trade with the Soviet bloc at the end of the Cold War and the restrictions imposed upon it by US efforts to limit aid and enact economic sanctions (Eberstadt 2011, 3). Western scholars tend to cite North Korea’s overall political structure as the primary reason for the DPRK’s economic difficulties in the 2000s. North Korea’s economic problems are the direct result of system characteristics such as an inability to do long-range economic planning; the “hyper-militarization of the national economy” through the DPRK’s Songun system; problems with providing honest
domestic policies and even with the nomination of a young and inexperienced Kim family member as the next regime ruler, the DPRK leadership remained, at least to external observers, stable and in control of its society.

The public response to the economic chaos of the 1990s and continued problems with North Korea was the emergence of an alternate market system that was “outside of the state economy” consisting of private services, manufactured goods, and local markets (Lankov 2012, 15).339 Women generally ran these businesses, which evolved from isolated local and regional markets in the 1990s to a “unified national market” with cross-border links to China (Ishimaru 2010, 346). North Korean officials tolerated these markets and informally legitimized and regulated them beginning in 2003 (Hassig and Oh 2009, 75-76). In 2007, the North Korean government began to limit the markets and began banning professionals (such as teachers and doctors) from working there. An internal KWP directive stated that

a majority of women reaching employment age [were] working in the markets. [The report] criticizes in particular female university graduates quitting from their original jobs as teachers and doctors and becoming merchants due to poverty, saying: "Abandoning their duties to do business in the markets is an act lacking the basic conscience and morality." (Sankei Shimbun 2007)

Additionally, the document quoted Kim Jong-il as criticizing the markets for “taking away our socialist system and transforming it into a place susceptible to all sorts of non-socialist phenomenon” (Ryu 2010, 111). In November 2009, the Kim regime introduced currency reform aimed at curbing black markets and other types of private enterprise in an effort to reestablish state control over the economy (Choe 2009a). North Korean citizens were forced to exchange a limited amount of old money for new currency, which set off a market panic “with the prices of staples such as rice and corn rising 6,000% to 8,000% and the black market value of the won collapsing” (Haggard and Noland 2010, 549).340 In February 2010, the DPRK government took

feedback to decision makers on the status of the economy; poor or non-existent monetary, banking and credit policies; the inability to pay foreign debt; "allergy to licit international trade" and the development of legitimate markets for overseas customers; and a restrictive international business environment (Eberstadt 2011, 10-11).339 Between 1998 and 2008, it was estimated that 78% of the income in North Korean households came from these types of ventures, which included agricultural products made from private fields and manufactured goods in homes or at “passively tolerated private workshops” (Lankov 2012, 15; Kim and Song 2008, 373).

340 The limits on the currency exchange meant that any personal funds above the relatively low exchange limits were effectively worthless, thus the extra cash that many North Korean citizens had saved to tide them over during the winter was lost (Choe 2009a).
the unprecedented step of issuing a public apology for the reform effort and executed the DPRK officials associated with the new monetary policy (Choe 2010 and KINU 2011b, 545).

In March 2010, North Korea sank a South Korean navy patrol craft (the Cheonan), as described above in the first question. The timing of this event and Pyongyang’s economic chaos surrounding its currency policy suggests that a relationship was potentially present and that North Korea attempted to use the attack to distract the public (or elites) from internal difficulties.\textsuperscript{341} This event also might have been a case of attempted diversion by the Kim regime that had unintended effects (i.e. the high number of South Korean deaths), to the extent that North Korea was unwilling to publically take credit for involvement in that event.

Between 2008 and 2011, the DPRK’s economy grew slightly, averaging less than 1 percent per year (BOK 2012). Analysts attribute North Korea’s economic stagnation to the same conditions that the DPRK faced over the years including the inability of the North’s economy to interact with world markets, continued efforts at autarky, and overall industrial and technological obsolescence (Nanto and Chanlett-Avery 2010, 28). North Korea’s national priorities continued to favor the military and the DPRK spent an estimated 15 to 27 percent of its GDP on national defense during the 2000s (Nanto and Chanlett-Avery 2010, 27).\textsuperscript{342} While estimates vary on North Korea’s defense spending, most analysts agree that it constitutes a disproportionate amount of the yearly DPRK budget and that the Kim regime has the most “militarized economy” in the world (Noland 2000, 72).\textsuperscript{343} Other estimates of North Korea’s economy are striking, such as the influence of agriculture, which constitutes 20.8%\textsuperscript{344} of the economy, and an

\textsuperscript{341} This is one of many explanations for that attack. North Korea’s attack on the Cheonan could have been part of posturing by military hardliners, an effort to change the disputed sea border, an attempt to force additional aid negotiations, part of Kim Jong-un’s rise as North Korea’s next leader, or revenge for either the naval skirmish in November 2009 or Seoul’s refusal to provide additional aid in 2010 (Bechtol 2010; Pomfret and Harden 2010; Chosun Ilbo 2013a). While the motive for this action may never be known, it is clear that North Korea did not use this incident as part of its overt propaganda effort as it did with its nuclear and missile tests. Thus, this event may have been intended for a select North Korean audience, possibly to appease a specific faction in the DPRK leadership (possibly the military). The idea that the Cheonan sinking was instigated by the hard liners in North Korea’s military is reminiscent of the alleged attackers (in Kim Il-sung’s words “extreme leftists”) in the Blue House attack of 1968 (SK Foreign Ministry Archives 1972). In any case, as in the Blue House attack, this incident was not something for which North Korea was willing to admit responsibility to either the DPRK public or the international community.

\textsuperscript{342} North Korea’s government reported that it spends 15.8% of its GDP in 2009, unchanged from 2008 (EIU 2009, 19).

\textsuperscript{343} In the early 2000s, North Korea reportedly spent as much as $5 billion per year, or 25 percent of its GDP, on national defense (Samore 2004b).

\textsuperscript{344} In comparison, South Korea’s agricultural section makes up only 2.6% of its GDP, yet the ROK produces more food each year than the North (EIU 2011, 18).
underdeveloped service sector (31% of GDP), both of which continue to be centrally guided by the DPRK’s government (EIU 2011, 18).

In comparison, the DPRK remained the poorest nation in East Asia, and among the most economically challenged in the world. Yet North Korea’s continued economic struggles were not surprising, since the types of changes required to achieve financial success were not congruent with the Kim regime’s efforts to maintain its state of authoritarian isolationism. To achieve growth and economic success, North Korea needed to make systemic changes to its economy, such as opening its economy to the international markets, taking active steps to reduce the DPRK’s stance as threatening to the international community, and normalizing ROK-DPRK relations (Eberstadt 2007, 304-305). These types of concessions never occurred and thus the DPRK economy had little hope of approaching its potential.

During the last year of the succession, the DPRK experienced some domestic economic gains, but also continued to struggle with food availability. After expanding trade with China, North Korea’s economic output increased, but assessments from the World Food Program notes that millions of North Korean citizens lacked adequate food (ECOS 2013; UN WFP 2011, 4). Additionally, inter-Korean aid began to show signs of resuming as Seoul approved limited amounts of food and medical aid for delivery by South Korean NGOs throughout the year (Foster-Carter 2011b, 8; Foster-Carter 2012, 16). At the end of the case study period, the majority of the hostile foreign policy activities were diplomatic pronouncements and it was not until after Kim Jong-il’s death that the only substantial military activity occurred: the test launch of at least one short-range missile from North Korea’s east coast (KINU 2011; Yonhap 2011a). As described above, there was at least one incident (the sinking of the Cheonan) that occurred simultaneously with a significant economic difficulties, suggesting a possible relationship between these events.

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**Question 4.** Was social instability associated with periods of increased HFP? (Hypothesis 3)

There were significant levels of social instability during the case study period, but I find no direct relationships between the levels of social instability and the DPRK’s use of hostile foreign policy activities. North Korea’s ability to feed itself improved by the mid-2000s, but problems persisted. In addition to international food aid, the North Koreans became dependent on privatized markets to support their efforts to obtain needed goods, including food. However, these markets were vulnerable to the actions of the regime and to food production levels. The Kim regime’s 2005 ban on the private trade of grain resulted in criminalizing “the primary mechanism through which most Korean families obtained food” (Haggard and Noland 2009, 384). Floods in 2006 and 2007, coupled with continued efforts by the DPRK government to control the private markets made matters worse and famine again became a real possibility for the North Korean people.

The difference between the onsets of food shortages in the 2000s compared to the 1990s was the level of the “marketization of the North Korean economy” (Haggard and Noland 2008, 20-21). During the Great Famine, substantial aid did not arrive until two years after the crises began to emerge in 1993, while in the 2000s, international aid associations monitored and accessed much of Korea for over a decade, which allowed a more timely response, albeit still controlled by the DPRK authorities (Haggard and Noland 2008, 20). Additionally, the increase of markets for private trading throughout North Korean society, including cross-border (DPRK-PRC) grain trade, reduced the vulnerability of the average North Korean citizen to food shortages (Haggard and Noland 2008, 20).

In July 2008, the UN reported “a progressive improvement in food security between 2000 and 2005” due to both increased domestic production and high levels of international food assistance (UN 2008a, I). Yet flooding in 2006 and 2007 decreased harvests and left hundreds of thousands homeless resulting in significant food shortages in 2008. The military and Pyongyang’s elite were not substantially affected, but more than 75% of the rest of North Korea reportedly had reduced their food intake and were eating “only two meals per day” (MacFarquhar 2008). The UN (2008a, 1) also notes that access to food had decreased significantly via North Korea’s food distribution system (the PDS) and rations decreased from
500 grams (per person per day) in November 2007 to only 150 grams per day in June 2008.\footnote{The benchmark of 450 grams per day was often used as the minimum required to satisfy human needs (Haggard and Noland 2011, 48), thus the ration of only 100 grams per day was substantially below required nutrition levels.} Significant health problems for vulnerable groups, including persistent malnutrition, persisted and the UN (2008b, 22) notes,

Some 37 percent of children under 6 were stunted, 23 percent were underweight and 7 percent were wasted. One third of all mothers with small children were malnourished, anemic, and dietary diversity (poor in protein, fats, minerals, and vitamins) was lacking.

Additionally, infant and under-five mortality rates during this period stabilized and between 2005 and 2011, were at levels fifty percent lower than during the height of the 1990s famine (World dataBank 2012). Thus while much of North Korea was suffering, the mortality rates for two of its most vulnerable groups were significantly better than during the previous decade.

North Korea’s relations with the international community greatly influenced the levels of food available to the Kim regime during this time. The nuclear test in 2006 resulted in South Korea’s suspension of fertilizer shipments, which were critical for DPRK food production. This resulted in decreased harvests and, along with “general donor fatigue” on the part of both South Korea and other states, negatively affected humanitarian aid levels (Haggard and Noland 2009, 384). The DPRK’s second nuclear test in May 2009 and naval and artillery attacks against South Korea in 2010 also affected the international community’s willingness to provide additional aid, and resulted in the US, South Korea, and even China significantly curtailing their aid programs (Kim, S. 2010 and Hwang 2011). In March 2011, the UN concluded that North Korea’s PDS would run out of food in two months and that over six million DPRK citizens were in “urgent need of international food assistance” (UN 2011). Yet following Kim Jong-il’s death in December 2011, China reportedly began sending “significant” amounts of food and fuel aid to “ensure a successful power transition” (Snyder and Byun, 2012).\footnote{Details on the amount and type of Chinese humanitarian and energy aid were not made public.}

Refugee flows are another indicator of social distress for North Korea. In the 2000s, refugees arriving in South Korea were at their highest levels ever, increasing from an average of fourty-nine per year in the 1990s to over two-thousand annually between 2000 and 2011 (MOU
Yet during this time, the border between China and North Korea became much “less porous” as both states enacted measures to tighten security along the Sino-DPRK border areas (Lankov 2009, 64). The number of DPRK refugees living in China dropped significantly, decreasing from around 100,000 during the 1990s (Foster-Carter 2001, 4) to between 5,000 and 10,000 in 2009 (Haggard and Noland 2011a, 2 quoting figures from Robinson 2010); scholars attributed this to both improving living conditions (food availability) in North Korea and increased border security (Lankov 2009, 64). This data on refugees indicate that North Koreans seeking temporary solutions to difficult circumstances in the DPRK may have returned as conditions improved. Those who chose to permanently leave the DPRK are possibly reflected in the numbers of refugees who left the DPRK for other countries, including South Korea.

While the declining numbers of DPRK refugees in China may or may not indicate improving domestic conditions, North Korea’s food availability and the DPRK’s ability to feed its population increased during this period. In December 2012, the UN determined that improved harvests in both 2011 and 2012 narrowed the food gaps significantly and that a “consistent food assistance pipeline“ helped reduce malnutrition rates (UN WFP 2012, 4). Yet North Korea’s overall situation, despite its gains, remained dire. Eberstadt (2011, 5) observes that North Korea was the only industrialized society in history to accomplish “such a fateful retrogression” in its decline from a state with a relatively modern economy to one that relied heavily on the international community to feed its people. North Korea remained subject to “exogenous shocks in the form of both weather and rising world prices” because of the Kim regime’s inability and unwillingness to change its agricultural and governmental systems to function more efficiently (Haggard and Noland 2009, 385). Yet, despite these domestic challenges, the Kim regime again weathered another significant food crisis, actually made progress (at least to external observers) towards its historic goal of juche, and reduced dependence on other states. At the same time, I find no relationship between social instability and heightened HFP activities.

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350 Significant increases began in 1999, when reported refugee numbers doubled from the previous year to 148, and numbers increased yearly thereafter and by 2002, there were over 1,000 North Koreans arriving in South Korea each year and by 2006, that number increased to over 2,000 (ROK MOU 2012a).
351 This description omits the complicated situations and extreme hardships faced by DPRK refugees. For more details on both the circumstances and motives of DPRK refugees, see KINU (2011b), Hassig and Oh (2009) and Haggard and Noland (2011a).
352 This may have been referring to the Chinese food and energy support cited by Snyder and Byun (2012).
**Question 5.** Were UN resolutions against the DPRK associated with increased HFP? (Hypothesis 4)

UN sanctions were related to hostile foreign policy activities, and significant increases in the level of HFP by the Kim regime generally occurred during and after Security Council activities. For example, North Korea’s April 2009 Taepodong-2 test prompted UNSC condemnation and the DPRK’s nuclear test the following month resulted in the Security Council's passage of Resolution 1874, intended to impose stricter sanctions on the Kim regime’s missile and nuclear programs (Kimball 2012). This resolution was expected to be more comprehensive than those enacted in 2006 and provided for financial sanctions on any DPRK trade associated with its weapons programs (Nikitin 2010, 2). Again, the effectiveness of these sanctions hinged on China’s participation, which continued to seek a role in negotiation and mediation, rather than active enforcement of the Security Council resolution (Haggard and Noland 2011b, 64).

As with other high-profile hostile foreign policy actions by North Korea, this event began an oft-seen cycle of actions and reactions from the international community and North Korea. The United Nations Security Council condemned the launch as a violation of resolution 1718 and stated that it would pursue a tightening of sanctions (UN 2009a). North Korea reacted by declaring that there “was no need for the six party talks anymore,” expelling UN nuclear dismantlement inspectors, and stating that the DPRK would resume its nuclear program (Landler 2009; UN 2009b; KCNA 2009e). The KCNA stated that the UN Security Council’s condemnation and “challenging even the satellite launch for peaceful purposes, compels the

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353 In 2006, the United Nations Security Council passed two resolutions (1695 and 1718) condemning North Korea’s ballistic missile activities and nuclear test (UNSCR 2006a and 2006b). These sanctions were primarily focused on North Korea’s trade in military and luxury goods and were intended to punish the Kim regime and its defense sector. Yet Noland (2008, 9) found that there was no evidence that these UN sanctions had any effect on the DPRK’s luxury goods trade with China (its biggest trading partner) or on North Korea’s overall trade. Indeed most observers contend that PRC participation and enforcement was required for any meaningful sanctions against the Kim regime (Lee and Choi 2009, 57). Thus, China’s lack of enforcement of the 2006 sanctions limited their overall effectiveness (CRS 2010, 2). Additionally, rather than punishing the North Koreans, sanctions often have unintended domestic consequences and have been used by the Kim regime to fuel national sentiment as “propaganda tools” to support its grip on power (Nanto and Chanlett-Avery 2010, 14).

354 North Korea originally agreed in September 2005 to abandon “all nuclear weapons and existing nuclear programs,” although with no agreement on the implementation date (Kahn and Sanger 2005). During the Six Party Talks in October 2007, North Korea agreed to begin physical dismantlement of its nuclear facilities (Cooper 2007). In April 2009, after disagreements over verification methods and the provision of aid, the DPRK announced it was expelling UN inspectors and restarting its nuclear program (Landler 2009).
DPRK to further increase its nuclear deterrent” (KCNA 2009e). Three days after the UN Security Council Resolution passed, North Korea staged a 100,000-person rally in Pyongyang to denounce the UN action (KCNA 2009a). During the protest, North Korean officials stated that the Korean People’s Army was “technically at war with the U.S.” and that it would “promptly exercise the right to preemptive strike to beat back the enemies' slightest provocation” (KCNA 2009a).

United Nations Security Council Resolution 1874 provided additional means to enforce previous sanctions. This resolution included sanctions on “all arms-related trade and all training or assistance related to it” (UNSCR 2009; Haggard and Noland 2010, 562-563). North Korea responded to these sanctions by stating, “It has become an absolutely impossible option for the DPRK to even think about giving up its nuclear weapons…Any attempted blockade of any kind will be regarded as an act of war” (KCNA 2009m). Around the same time, the Kim regime also sentenced two American journalists (apprehended two months earlier on the Sino-DPRK border while doing research for a documentary) to 12 years in prison and launched a number of short and medium-range test missiles on 4 July: both actions were most likely intended to pressure the United States (Oh and Hassig 2010, 92-93).355

These sanctions did little to change North Korea’s military behavior, as demonstrated by high-profile military engagements against South Korea (Cheonan and artillery attacks) and countless other hostile foreign policy actions during this period (Hom and Thompson 2010; Klinger 2010). While the international community considered economic sanctions as a means to punish the North Koreans, these actions did little to inhibit their tendency to engage in high profile actions aimed at the “enemies” of the DPRK regime. Thus, there were links between UN resolutions and increased levels of DPRK hostile actions as predicted by Hypothesis 4.

355 Former US President Bill Clinton visited Pyongyang in August 2009 to secure the journalists’ release after their five month detention (Chanlett-Avery 2013, 8). North Korea’s press stated that “Clinton expressed words of sincere apology to Kim Jong II for the hostile acts committed by the two American journalists against the DPRK after illegally intruding into it. Clinton courteously conveyed to Kim Jong II an earnest request of the U.S. government to leniently pardon them and send them back home from a humanitarian point of view” (KCNA 2009i). After their release, the US journalists stated that they entered the DPRK “for less than a minute,” returned across the border, and then were arrested by DPRK guards in China and taken to North Korea (Kirk 2009).
Question 6. Were ROK leadership changes associated with increased North Korean hostile foreign policy activities? (Hypothesis 5)

During the South Korean presidential election in 2007 and new president’s assumption of office in 2008, there were relatively low levels of DPRK hostilities and most were related to political rhetoric, rather than significant HFP actions. South Korea’s presidential race during this period included the election of conservative Lee Myung Bak as leader of the ROK ushering in a new, more conflict-ridden period for both North and South Korea.

As it had during previous elections, North Korea voiced its concern on its preferences of liberal versus conservative South Korean presidential candidates during the months preceding the 2007 ROK elections (Lee 1992; Breen 1992; KCNA 2007a; KCNA 2007b). Kim Jong-il’s hosting of South Korea’s President Roh in the second-ever inter-Korean summit in early October 2007 demonstrated that the DPRK regime preferred the liberal candidate Chung Dong-young (Sudworth 2007; Snyder 2009, 93-94). Alternatively, the North Korean regime made negative public references to Lee and referred to his conservative Grand National Party as a “pro-U.S. flunkeyist traitor party which is selling off the nation” (KCNA 2007a). North Korean hostile foreign policy actions from September through December 2007 were limited to political statements and rhetoric, rather than military activities (UNC 2012). Yet there were a number of specifically targeted statements in the North Korean press against the third candidate, ultra-conservative independent Lee Hoi-chang who entered the race in November (one month before elections) and advocated both denuclearization and regime change for the DPRK (Onishi 2007; KCNA 2007b; KCNA 2007c).

Lee Myung-bak won the 2007 election with 48.6 percent of the vote versus liberal candidate Chung Dong-young’s 26.2 percent and the largest margin of victory in recent history (Herman 2007). Lee’s election effectively spelled the end of the “Sunshine Policy” as he immediately proposed to abolish South Korea’s Ministry of Unification while declaring that reinvigorating the ROK-US alliance was his top policy goal (Choe 2008; Snyder 2009, 87). In November 2010, South Korea’s Ministry of Unification formally declared the end of the “Sunshine Policy” and that “a decade of cooperation, cross-border exchanges and billions of dollars in aid did not change Pyongyang’s behavior or improve the lives of North Korean citizens.”

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356 Independent candidate Lee Hoi Chang received 15 percent of the overall vote (Herman 2007).
357 In November 2010, South Korea’s Ministry of Unification formally declared the end of the “Sunshine Policy” and that “a decade of cooperation, cross-border exchanges and billions of dollars in aid did not change Pyongyang’s behavior or improve the lives of North Korean citizens.”
to engage in a series of provocative actions, ultimately culminating in the intense HFP activities in 2010. Thus while the election period itself was not associated with heightened levels of North Korean activity, Lee’s election as president occurred at the beginning of a period of increased tensions on the peninsula.

**Question 7.** Were US leadership changes associated with increased North Korean hostile foreign policy activities? (Hypothesis 6)

I find no direct connection between the US presidential election and DPRK hostile foreign policy actions. The 2008 US presidential election occurred at a time when the US was involved in two long-term overseas conflicts (Iraq and Afghanistan), and although much of the public’s attention was focused on domestic issues (especially the economy), the candidates had clear and substantially different positions on how to deal with the DPRK. The Republican Party’s candidate, John McCain (a decorated Vietnam veteran), was reportedly dissatisfied with the Bush administration’s policies towards the DPRK. Aside from demanding a complete and verified dismantlement of North Korea’s nuclear program, McCain also wanted to pursue “human rights, illegal and illicit activities, economic and political reform, proliferation, and reduction of the conventional military threat from North Korea” (Cheon 2008; USAPC 2008; Shorts and Min 2008, 32-36).

The challenger, first-term democratic Senator Barak Obama, advocated direct talks with North Korea along with participation in multilateral negotiations, such as the Six Party Talks, as a means to coax the DPRK to abandon its nuclear program. Obama stated that he would be willing to meet directly and unconditionally with the leaders of Iran, Syria, Venezuela, Cuba, and North Korea to improve relations with those states (USAPC 2008; Olsen 2008; Phillips 2008). Given the choice of the two candidates, it seems likely that North Korea favored Obama and his pledge to conduct open dialogue with the DPRK and this supported Kim Jong-il’s previous contention that bilateral negotiations (between the DPRK and US) were the only way to move forward on the nuclear issue (Shorts and Min 2008, 32; Powell 2009). McCain’s hawkish policies potentially would complicate the Kim regime’s negotiations by subjecting North Korea’s government to international scrutiny and multilateral diplomacy (USAPC 2008). Yet,

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358 These began with missile launches in late March 2008 and included a series of events (generally at least one event involving the DPRK military every 1-2 months) through the end of 2010 (UNC 2012; KINU 2011).
despite the characteristics of both US presidential candidates, the DPRK refrained from any significant public statements of support or denouncement of either Obama or McCain (KCNAWatch 2013).

North Korea’s hostile foreign policy actions during 2008 (through the November elections) were generally lower than in previous years and dominated by diplomatic pronouncements criticizing the US or ROK governments (KINU 2011; UNC 2012). The most significant DPRK activities during this time included the killing of a South Korean tourist by a North Korean soldier (resulting in the closing of the Mount Kumgang tourist resort) and coastal short range missile tests in March, May and October (UNC 2012; KINU 2011; BBC 2011b). Also during this time, North Korea negotiated 500,000 tons in heavy fuel oil shipments and 500,000 tons of food aid in exchange for its continued dismantling of its nuclear program (which began in 2007) and participation in the Six Party Talks (Manyin and Nikitin 2010, 5-8; Niksch 2010, 7). Along with this aid, the US made two symbolic concessions to the DPRK in efforts to spur continued negotiations: the Bush administration removed North Korea from the “Trading with the Enemy Act” (allowing for the lifting of some sanctions) and delisted the DPRK from the “state sponsors of terrorism” designation (Niksch 2010, 8).359 Hence, during this time the North Koreans had significant incentives to limit conduct of aggressive foreign policy actions in order to sustain the external aid provided by the Six Party Talk participants.

After Obama’s election win in November 2008 (with a 12 percent margin of victory over McCain), the DPRK issued no public statements on the results (Nagourney 2010; KCNAWatch 2013). The KCNA did acknowledge Obama’s inauguration in January 2009 by noting, “Barack Obama took office as the 44th president of the United States on Jan. 20” with no accompanying rhetoric (KCNA 2009l). In March 2009, just two months after Obama was sworn in as US president, negotiations with North Korea broke down and by May 2009, the North launched a long range rocket (the Taepodong-2), restarted its nuclear program and conducted its second nuclear weapons test (Manyin and Nikitin 2010, 7; Choe 2009b; Kimball 2012). While the incidence of DPRK hostile foreign policy decreased significantly during the months prior to the election of Barak Obama, this hiatus did not last. The following year, hostility levels of Kim regime foreign policy actions rose to levels not seen since the late 1960s.

359 Cheon (2008) notes that these actions seemed to be more congruent with then-candidate Obama’s policy line of directly engaging “rogue regimes” than Republican candidate McCain’s more hard line approach to North Korean issues.
**Question 8.** Did ROK/US strategic-level military exercises correspond with increased hostile foreign policy activities? (Hypothesis 7)

During the case study period, military exercises continued on both sides of the DMZ, ranging from the tactical to the strategic, and annual joint ROK-US exercises seemed to cause heightened levels of DPRK denouncements. Additionally, there were linkages between other types of conflict and ROK-US exercise periods. Between 2008 and 2011, ROK and US military forces conducted at least four strategic-operational (and countless lower level military) annual exercises intended to both increase readiness and act as a visible deterrent to DPRK provocative actions (D’Orazio 2012, 276-277; author analysis). For example, the large-scale exercises listed in Table 4.5 all occurred in 2010:

Table 4.5 US-ROK Military Exercises (2008-2011)

<table>
<thead>
<tr>
<th>Exercise</th>
<th>Month</th>
<th>Type</th>
<th>Purpose</th>
<th>Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>KEY RESOLVE</td>
<td>March (annual)</td>
<td>Command post</td>
<td>Designed to “repel assault from North Korea.”</td>
<td>Halloran 2011, 74</td>
</tr>
<tr>
<td>FOAL EAGLE</td>
<td>March (annual)</td>
<td>Field training exercise</td>
<td>Focused on “operational plans in case of an all-out war on the Korean Peninsula”</td>
<td>Halloran 2011, 74; Chosun Ilbo 2010a</td>
</tr>
<tr>
<td>Invincible Spirit(^{360})</td>
<td>July 2010</td>
<td>Maritime and air readiness</td>
<td>Exercise was “in response to the sinking of the South Korean warship Cheonan and intended to send a strong message to Pyongyang to stop ‘provocative and warlike acts’”</td>
<td>Halloran 2011, 75; CNN 2010a</td>
</tr>
<tr>
<td>ULCHI FREEDOM GUARDIAN</td>
<td>August (annual)</td>
<td>Command post</td>
<td>Conducted “to ensure that our Alliance is prepared to respond to threats across the spectrum of conflict, including North Korean provocations.”</td>
<td>USFK PAO 2010; Ham 2010</td>
</tr>
<tr>
<td>Unnamed</td>
<td>November 2010</td>
<td>Maritime readiness</td>
<td>Exercise was “meant as a warning to North Korea for recent provocations, including last week’s deadly artillery attack on an island populated by South Koreans in the Yellow Sea.”</td>
<td>Fackler 2010</td>
</tr>
</tbody>
</table>

These exercises provoked hostile statements from the North Koreans, such as a published DPRK response to the Invincible Spirit event (in July 2010) stating that it would respond with a “powerful nuclear deterrence” (Harlan 2010; KCNA 2010a). The US and South Korea conducted the Invincible Spirit exercise in reaction to the North Korean sinking of a ROK naval vessel Cheonan in March 2010.

\(^{360}\) This was the first time this exercise was held and it was conducted in direct response to the sinking of the ROK naval vessel Cheonan in March 2010.
vessel (the Cheonan) in March 2010 (ROK MND 2010, 220; Halloran 2011, 75; CNN 2010a). A similar exercise occurred in November 2010 after the Yeonpyeong Island shelling (Fackler 2010). Thus, while DPRK hostile foreign policy actions often occur in response to ROK-US military exercises, in these two cases a ROK-US “show of force” exercise was conducted as a direct result of a specific DPRK hostile action. In these instances, a DPRK military action initiated a ROK-US response, but in other cases, exercises conducted by the ROK and its allies were sometimes accompanied by changes in the levels of HFP by North Korea.

North Korea’s hostile foreign policy actions between 2008 and 2011 are well-documented from external sources and a cursory examination of the levels of DPRK activity during ROK-US military exercises follows.

Figure 4.13 DPRK Conflict Level and ROK-US Military Exercises

As shown in Figure 4.13, there is a visual correlation between the levels of hostility and military exercises, at least during the KEY RESOLVE – FOAL EAGLE (KR-FE) exercises (denoted by yellow diamonds) each March from 2008 to 2010. Additionally, significant hostile foreign policy actions occurred in August 2010, around the same time as ULCHI FREEDOM GUARDIAN (UFG), and during the Yellow Sea naval exercise in November 2010. After that

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361 As previously noted, the lack of access to reliable information from inside North Korea remains a key limitation of this study.
362 Although this chart is formatted differently than previous ones, it provides an important example of the relationship between military exercises and hostile foreign policy actions by month, demonstrating that there is a correlation, at least during some events, of conflict to strategic exercises.
point, activities decreased steadily. Concurrently, there were comparatively lower levels of activities during UFG exercises in 2008, 2009, and 2011 and during the KR-FE exercise in 2011. Nonetheless, there is evidence that at least some of the exercises coincided with heightened levels of DPRK activity. This conclusion contrasts with D’Orazio’s (2012, 291) quantitative examination of military exercises from 1998-2010 which found that North Korea’s “response to US and South Korea joint exercises is not unique and not systematically different from regular DPRK activity.” Thus, while there was a correlation between heightened levels of HFP activities and ROK-US exercises, it was not consistent throughout the case study period.

**Question 9.** Was the presence of a conservative ROK government associated with increased HFP? (Hypothesis 8)

Conservative Lee Myung-bak was the ROK President throughout the case study and his political orientation most likely contributed to increased HFP action by the DPRK. Although relations between the Koreas had historically been tenuous, the Kim Dae-jung administration (1998-2003) pursued a policy of engagement with the DPRK, culminating in the 2000 North-South Summit (ICG 2010, 8). The Roh Myoo-hung administration (2003-2008) continued to follow his predecessor’s “Sunshine Policy” of cooperation and reconciliation with the DPRK (Kim, DJ 1998; Kim C. 2005, 12). During this time, the South Korean administration altered its relationship (at least at the national level) with the US and pursued a more independent foreign policy with the DPRK. This policy was a continuation of the Kim Dae-jung’s efforts based on the concept of “peace and prosperity” towards North Korea and reflected rising anti-American sentiment in South Korea at the time (Zhu 2007, 75).

In November 2004, Roh criticized the Bush administration’s pressure on the DPRK to give up its nuclear ambitions and defended “North Korea’s assertion that it needed a “nuclear deterrent” in view of its perception of a threat from the United States” (Niksch 2005, 1).

Although both the US and South Korea focused on the Six Party Talks as a venue to

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363 Levin (2004, 21) notes that during his election campaign, Roh often criticized the US and increased “anti-American” sentiment (intentionally or otherwise) in an apparent effort to appeal to young Korean voters who want a more ‘equal’ relationship with the United States.”

364 The rise of anti-American sentiment was strongest among the younger Koreans, who increasingly viewed the US as a major impediment to ROK-DPRK reconciliation. Incidents involving US service members stationed in South Korea, criticism of US operations in Iraq, fewer concerns over attacks by the DPRK military, and US inaction over legacy disagreements between Japan and South Korea all served to influence increasingly negative views of the United States policy towards North Korea (Zhu 2007, 75-76)
diplomatically address North Korea’s nuclear program, the South seemed less concerned with North Korea’s 2006 test than the US. The Roh administration focused on avoiding military conflict with the DPRK through an emphasis on economic relations “as a means to forestall the North’s collapse and to support its economic reform” (Snyder 2007, 36-37). This emphasis on economic cooperation with North Korea despite its hostile actions contrasted with South Korean conservatives, such as Lee Myung-bak, elected to succeed Roh in 2007. Lee’s policies were exactly as the North feared: one of his first acts was to end “unconditional aid” to the DPRK and required progress on the nuclear issue as a prerequisite to economic aid cooperation with the Kim regime (Haggard and Noland 2010, 558). North Korea’s reaction was to condemn Lee publically (the first direct criticism of a South Korean leader since 2000) by stating that the “Lee regime will be held fully accountable for the irrevocable catastrophic consequences to be entailed by the freezing of the inter-Korean relations” (Foster-Carter 2008; KCNA 2008a).

In fact, many in South Korea blamed Lee’s policies for antagonizing North Korea to take actions such as the sinking of the Cheonan (Klinger 2011). Others criticized the Lee administration for its lack of action during incidents such as the killing of a South Korean tourist at a North Korean resort, and the two Yellow Sea attacks in 2010 (Fackler 2010). In any case, from 2008 to 2011, the South Korean administration was much less willing to negotiate with the Kim regime, which complicated DPRK efforts to gain additional humanitarian aid from the South, which had, along with the United States, provided the majority of humanitarian aid to the DPRK prior to Lee’s election (Manyin 2010, 20-21). While the Lee administration sometimes interfered with North Korea’s efforts to obtain international aid and continue its intra-Korean cooperative business ventures, a “hostile” administration in the South did ultimately provide

365 In fact, South Korea seemed more concerned with US reactions to the nuclear test, than with the DPRK’s emerging nuclear capability. Cha (2012, 268) notes that after North Korea’s nuclear test, the South Koreans feared the US might take military action and during a phone call with US President Bush on addressing the test in the UN Security Council, Roh “rapidly read talking points about how the United States should not provoke a war in Korea.”

366 Lee was criticized for seemingly tepid responses to the killing of a South Korean tourist (South Korea suspended tours to the resort and banned civilian groups from visiting the DPRK) and the Cheonan sinking as he responded with “mild measures like reducing the South’s already minuscule trade with the North” (Fackler 2010).

367 North and South Korea operated two joint economic ventures during this time: the Kaesong Industrial Complex and the Mount Kumgang tourist resort. Accessible to South Koreans, both of these special economic zones were the result of Kim Dae-jung’s Sunshine Policy and intended to “nudge the North toward embracing economic reforms and opening up to the world” (Onishi 2006). While the Mount Kumgang tourist resort was closed in 2008 (BBC 2011b), the Kaesong Industrial complex included around 100 South Korean companies employing
additional support to the Kim regime’s domestic propaganda efforts. North Korea routinely referred to the Lee administration as the “puppet regime” and branded the South Korean president “Traitor Lee” and “the puppet prime minister” (KCNA 2009b; KCNA 2011b). Thus while the Lee administration made North Korea’s efforts to obtain international aid more difficult, it did help sustain the Kim regime’s efforts to divert public attention by reminding the public that North Korea was constantly being threatened by both the Lee “puppet government” and US “imperialist forces” (KCNA 2011c). Thus, the presence of Lee’s conservative government was most likely related to increases in North Korea’s HFP activities during the case study period.

4.d.3. Summary and Case Study Conclusions

On 19 December 2011, North Korean media announced that Kim Jong-il died of “great mental and physical strain…on a train during a field guidance tour” and that a medical exam confirmed it was a heart attack (KCNA 2011d; KCNA 2011e).\(^{368}\) US and South Korean intelligence organizations knew nothing about Kim's death until it was announced by the KCNA. This was a stark reminder of the "secretive nature of North Korea, a country not only at odds with most of the world but also sealed off from it in a way that defies spies or satellites" (Landler and Choe 2011). While this event did catch the entire world by surprise, North Korea showed no signs of instability or pending collapse as a result (ITAR 2011). By all accounts, the North Koreans began a period of public mourning that was not accompanied by any detectable moves by factions to seize control of the government, mass defections, or any other sign of internal distress (JEN 2011). The regime succession that the North Koreans had been planning for had finally come.

North Korean media announcements not only mourned the death of their “Dear Leader” but also noted public and military allegiance to Kim Jong-un (KCNA 2011f). For example, on the same day Kim Jong-il’s death was announced, the KCNA (2011g) noted, “Our army and people will struggle staunchly for an ultimate victory true to the leadership of Kim Jong-un.” The younger Kim was declared “Supreme Leader” and head of both the North Korea's military

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\(^{368}\) There was speculation over the actual circumstances of Kim's death. South Korean intelligence sources note that the train Kim reportedly died on while travelling never left Pyongyang, leading to rumors that the North Korean leader had been “killed as a result of power struggles” (Straits Times 2011; Parry 2011). Whether or not this was true is difficult (if not impossible) to verify.
and the Korean Worker's Party; by the end of December 2011, Kim Jong-un formally became the leader of the DPRK (Choe 2011a; KCNA 2011h).

This examination of the conditions surrounding North Korea's foreign policy activities from 2008 to 2011 provides insight into why the Kim regime, despite challenging domestic conditions, continued to pursue hostile actions regardless of the international consequences. While there were collateral benefits to the development and testing of nuclear technology (such as regional security posturing), these types of hostile foreign policy actions seems to have also been targeted at North Korea's domestic audience. The Kim regime took a significant risk during its most provocative actions: both the direct attacks against South Korea could have potentially escalated into a sustained conflict. Additionally, the testing of both nuclear devices and potential delivery systems (missiles) was not only alarming to South Korea, but of significant concern to the entire international community. Surprisingly (but probably not to North Korea), the external reactions from the ROK, US and other states to these events were muted and demonstrated the unique and threatening security position North Korea holds in the international order. Table 4.6 summarizes and analyzes these findings on North Korea’s actions as it navigated the succession process.
Table 4.6 Structured Analysis Results: Regime Succession (2008-2011)

<table>
<thead>
<tr>
<th>Category</th>
<th>Question</th>
<th>Test Result</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dependent Variable (HFP)</strong></td>
<td>1. What was the level of hostile foreign policy during the case study?</td>
<td>Higher</td>
<td>Conflict scores averaged 1188 per year and were higher than historic norms.</td>
</tr>
<tr>
<td><strong>Internal Conditions</strong></td>
<td>2. Was political instability associated with heightened HFP activities?</td>
<td>No</td>
<td>Instability occurred, but there were no direct links to HFP during this period.</td>
</tr>
<tr>
<td><strong>Independent Variables</strong> (Proposition 1)</td>
<td>3. Were economic difficulties associated with increased HFP? (H2)</td>
<td>Yes</td>
<td>The DPRK conducted at least one significant event in conjunction with economic difficulties.</td>
</tr>
<tr>
<td></td>
<td>4. Was social instability associated with periods of increased HFP? (H3)</td>
<td>No</td>
<td>Although social instability was present in this case, no links with HFP were found.</td>
</tr>
<tr>
<td><strong>External Conditions</strong></td>
<td>5. Were UN resolutions against the DPRK associated with increased HFP? (H4)</td>
<td>Yes</td>
<td>HFP activities occurred in reaction to UN resolutions.</td>
</tr>
<tr>
<td><strong>Independent Variables</strong> (Proposition 2)</td>
<td>6. Were ROK leadership changes associated with increased HFP actions? (H5)</td>
<td>No</td>
<td>The DPRK increased rhetoric but not significant HFP actions.</td>
</tr>
<tr>
<td></td>
<td>7. Were US leadership changes associated with increased HFP actions? (H6)</td>
<td>No</td>
<td>The DPRK refrained from commenting on the campaign.</td>
</tr>
<tr>
<td></td>
<td>8. Did ROK/US strategic-level military exercises consistently influence DPRK hostile actions? (H7)</td>
<td>Yes</td>
<td>There were changes, although inconsistent, in DPRK activities in conjunction with strategic exercises.</td>
</tr>
<tr>
<td></td>
<td>9. Was the presence of a conservative ROK government associated with increased HFP? (H8)</td>
<td>Yes</td>
<td>Conflict levels increased with the arrival of a new ROK conservative government.</td>
</tr>
</tbody>
</table>

As shown above, Proposition 1 finds limited support in the linkage between North Korea’s economic conditions and external hostility behavior, at least in the case of its sinking of the Cheonan (H2), although not without qualification. This event occurred at the same time as a significant economic crisis (currency reform), but for some reason, the DPRK did not acknowledge the act. Thus, the event was potentially linked to DPRK economic conditions. I find support for P2 in the relationship between UN resolutions and conflict: heightened levels of

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369 The average yearly conflict score between 1960 and 2011 was 735 (see Appendix C).
370 North Korea never admitted responsibility for this incident (the Cheonan sinking), which occurred in conjunction with the end of the DPRK’s 2009-2010 currency crisis (Chosun Ilbo 2013a).
HFP, such as missile firings and intense rhetoric, were present in the weeks following the UN Security Council declarations. Additionally, in support of P2, I find that strategic-level exercises were also associated with changes in HFP levels, although on a varied basis. Finally, the explanation that DPRK conflict is simply the result of a ROK conservative administration (H8) in power finds support as the arrival of Lee Myung-bak coincided with increases in HFP activities.

The Kim regime potentially used hostile foreign policy events (such as the nuclear and missile tests and Yellow Sea incidents) as means to coalesce domestic support around Kim Jong-il’s appointed successor. While the actions also served to enable other policy objectives, such as obtaining enhanced bargaining positions with the ROK and United States, there is a clear linkage between these actions and the rise of Kim Jong-un. These actions also enabled the regime to retain its grip on power and again demonstrated that North Korea could weather external pressures from the international community to change its behavior. Internal collapse had been predicted repeatedly yet it never happened, at least to outside observers. The 2008 to 2011 succession between Kim Jong-il and his son, Kim Jong-un was another perceived crisis for the regime and again, the international community predicted that North Korea would finally meet its end as it attempted an unprecedented third dynastic-communist assumption of power.

Another source of domestic stress for the North Korean government was both the declining health of its leader and how to manage a second “dynastic succession.” North Korea followed a compressed version of its first familial success in the introduction and installation of Kim Jong-un (Ahn 2011, 27). By all external indications, aside from “administrative” shuffling (or purges) of some individuals, Kim Jong-un rose to power in North Korea with few difficulties (Kim, J. 2011, 15; ITAR 2011). The hostile foreign policy events during this period (especially the Yellow Sea incidents and nuclear test) accompanied succession efforts and helped solidify Kim Jong-un as the unquestioned successor in the minds of the DPRK public, military and elite class (Kim B. 2011; Foster-Carter 2012, 12). Thus, while the analysis of the individual conditions faced by North Korea this case study provides some support to P1 and more substantial support to P2, a more important conclusion is that diversion was a policy tool used by the Kim regime to contend with the conditions it faced.

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371 Cumings (2011, 54) notes that North Korea did, as a society, collapse during the 1990s as a result of the loss of external communist support and famine, yet this did not result in the “collapse of state power” which often has been the case in other states.
Figure 4.14 Timeline: The Succession

<table>
<thead>
<tr>
<th>North Korean Events</th>
<th>US-ROK Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food security improves</td>
<td>Lee Myung-bak elected ROK President</td>
</tr>
<tr>
<td>Kim Jong-il’s health declines</td>
<td>Barack Obama elected US President</td>
</tr>
<tr>
<td>Kim Jong-un chosen as KJI’s successor</td>
<td>UN Security Council Resolution 1874 passed</td>
</tr>
<tr>
<td>Taepodong II missile test</td>
<td></td>
</tr>
<tr>
<td>DPRK conducts second nuclear test (first was in 2006)</td>
<td></td>
</tr>
<tr>
<td>DPRK attempts currency reform</td>
<td></td>
</tr>
<tr>
<td>ROK Cheonan naval vessel sunk</td>
<td>Large-scale ROK-US naval exercises</td>
</tr>
<tr>
<td>Severe flooding decreases harvests</td>
<td></td>
</tr>
<tr>
<td>Yellow sea island (held by ROKs) shelled by DPRK</td>
<td></td>
</tr>
<tr>
<td>Death of Kim Jong-il</td>
<td></td>
</tr>
<tr>
<td>Kim Jong-un becomes DPRK leader</td>
<td></td>
</tr>
</tbody>
</table>

2008

2009

2010

2011

2012
4.e. Case Study Summary and Quantitative Analysis Comparison

In these three cases, I examine and test the relationships between the conditions North Korea faces and its use of hostile foreign policy. These cases provide insight into critical periods of North Korea’s development and its conflict activities had a significant impact on both regional and international systems. In the 1960s, North Korea emerged as a viable communist state that was willing to use military force to achieve national goals. Next (in the 1990s), the DPRK’s famine left the Kim regime dependent on international aid for survival. Finally, in the late 2000s, the Kim regime’s succession and nuclear program heralded a new phase of insecurity for both East Asia and the international community. In the following sections, I discuss the case study conclusions and then compare these results to the quantitative analysis.

4.e.1. Case Study Comparisons

These cases also show North Korea’s progression from a lesser communist state to a nuclear-capable nation that is concurrently dependent on international aid for survival. Yet throughout its history, the DPRK never hesitated to engage in intense levels of conflict with South Korea or the US to achieve national goals. The following chart provides a comparison of the intensity levels of North Korea’s hostile foreign policy throughout the study period.

Figure 4.15 Hostile Foreign Policy Levels Compared

Source: Korean Conflict Database (Appendix C)
The conflict levels during the late 1960s (and the first case study) are at levels higher than at any other time between 1960 and 2011 (66 percent higher than historical norms). This period includes direct attacks against South Korea and the US (such as the Blue House attack, the USS Pueblo seizure, and the EC-121 downing) and almost daily clashes along the North-South land and maritime borders. Conflict levels ebbed and flowed through the end of the Cold War and were at much lower levels during the 1990s and the famine period (18 percent below the study’s annual rates). During the 2000s, North Korea’s hostility levels increase again, approaching Case 1 levels (61 percent higher than historical averages), as the Kim regime pursued a more aggressive foreign policy through its nuclear program, missile tests, and conventional military engagements with South Korea. Yet the historic intensity scores alone do not provide enough information about the relationships argued by the propositions or hypotheses. In Table 4.7 below, I provide a more detailed comparison of the cases in relation to the proposals, hypotheses, and structured analysis.

Table 4.7 Case Study Comparisons

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Case 1 DPRK Emerges</th>
<th>Case 2 Famine</th>
<th>Case 3 Regime Succession</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hostile foreign policy level compared to historic norms?</td>
<td>Higher</td>
<td>Lower</td>
<td>Higher</td>
</tr>
</tbody>
</table>

P1 Supported?

<table>
<thead>
<tr>
<th></th>
<th>H1 – Political Instability</th>
<th>H2 – Economic Instability</th>
<th>H3 – Social Instability</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

P2 Supported?

<table>
<thead>
<tr>
<th></th>
<th>H4 – UN Resolutions</th>
<th>H5 – ROK Leadership Changes</th>
<th>H6 – US Leadership Changes</th>
<th>H7 – Strategic Military Exercises</th>
<th>H8 – ROK Administration Type</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n/a</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

The first two cases show relationships between economic instability and hostile foreign policy activities, but these observations are insufficient to provide overall support to P1. In Case 1, relative domestic stability occurred within the DPRK, but there were heightened levels of external conflict that occurred during that period. During Case 2, the domestic distress caused by famine conditions should have (based on diversionary theory and P1) caused heightened levels

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372 Cases 1 and 3 were 66 percent and 61 percent higher than yearly historical averages respectively. Case 2 was 18 percent lower than annual averages (Appendix C).
of conflict. In both cases, despite some linkage between HFP and conflict actions, the overall relationships between conflict and domestic difficulties are inadequate to provide support to P1.

In the third case study, North Korea experienced significant levels of domestic distress (both from an economic and political perspective). Although direct linkages between domestic conditions and conflict were difficult to identify, except for the timing of the sinking of the Cheonan, the heightened levels of HFP during the case study period help provide support to P1. In all three of the case studies, P2 finds significant support, as external conditions were influential and often related to DPRK hostile foreign policy actions. The characteristics of the ROK government, to include leadership changes, administration type, and military exercises (H5, H6, H7, and H8), are related to heightened levels of HFP.

At the same time, diversionary-type activities were present in all three cases. In the 1960s, increased prosperity for North Korea occurred, but HFP behavior was at its highest levels and diversionary-type behavior, associated with Kim’s efforts to reunify the Koreas, was present. Almost three decades later, the DPRK experienced significant levels of domestic distress (famine) and, it responded (albeit at lower levels than the 1960s) with HFP actions to include the development of nuclear technology, ballistic missile advances and testing, clandestine infiltration activities and naval clashes. The DPRK effectively used these events to bolster its negotiating position, obtain needed aid, and distract the public, eventually allowing the Kim regime to weather the crisis. The final case also included significant levels of economic difficulties and concurrently demonstrated that the Kim regime’s primary goal is to remain in control of the DPRK. Beginning in 2008, the Kim regime began to socialize the DPRK public with the next hereditary succession, punctuated by additional nuclear tests, missile launches, and attacks in the Yellow Sea. These actions appeared to be related to the Kim regime’s focus on maintaining sovereignty and power over North Korea’s elites, military, and citizens.

Throughout all three cases, the Kim regime continued to use the threat of external actors (the US, ROK, and Japan) as a means to maintain an air of constant “wartime readiness.” This method of maintaining political stability (control over the DPRK public) through fostering social instability has been a characteristic of all three of the Kim regimes.373 Yet, diversion was only one method used by the Kim regime to respond to domestic conditions, and other techniques.

373 The Kim Jong-un regime continues to emphasize that North Korea constantly faces war with both the US and South Korea (KCNA 2013a).
such as suppression, imprisonment, and executions were used as a response to the challenges experienced by the DPRK (Hassig and Oh 2009, 231; Lim 1993; Cho 1993). North Korea has also continued, at least since the 1990s, to reach out to the international community for aid to sustain its economy and feed its people. This “institutionalization of support” has become required for the DPRK to survive as a sovereign state\(^{374}\) and thus actions, both of concession and hostility, often occur simultaneously.

Finally, the Kim regime pursued divergent and often conflicting policies in attempts to maintain power. One enduring characteristic of the Kim regime was its willingness to use varied foreign policy approaches (from peaceful engagement to armed conflict) to achieve its domestic goals. These foreign policy approaches were influenced by internal conditions, such as domestic economic considerations, as well as the influence of external factors, including ROK election periods and strategic military exercises. Yet in all cases, the Kim regime continued attempts to focus its citizens on conditions outside the regime. The continued presence of a strong ROK-US alliance structure (an external threat) helped to provide a justification for the DPRK to sustain effort to distract its citizens. These case studies demonstrate that both internal and external considerations influence DPRK conflict behavior (at varying levels) and that diversion is one of many tools were used by the regime to remain in power.

4.e.2. Case Study and Quantitative Analysis Comparisons

When comparing case study analysis with statistical outputs (quantitative analysis), scholars cannot simply extend the methods used in quantitative analysis all of the “standard conventions for quantitative analysis” (George and Bennett 2005, 106). In this study, both research methods (quantitative and qualitative analysis) have revealed specific characteristics in relation to North Korean conflict. For example, each of the case studies encompass a number of years, ranging from four to seven years, while the quantitative analysis examines fifty-two years of conflict. Thus, the quantitative analysis demonstrates overall trends, but provides limited evidence on why particular trends actually occurred. The case studies provide detailed information on why particular hostile foreign policy events occurred in relation to overall conditions faced by the Kim regime, but are limited in scope and have difficulty in accounting for conflict over the entire study period. However, the mixing of these methods provides

\(^{374}\) Eberstadt (2011, 16) notes that foreign aid was potentially an “enabler” of DPRK hostile activities and that North Korea could not have afforded to “maintain such predictably destructive policies and practices” without massive amounts of international support.
evidence of relationships between conditions faced by the regime and hostile foreign policy conflict levels throughout North Korea’s history. Table 4.8 compares the case studies and quantitative analysis as follows:

Table 4.8 Case Study and Statistical Analysis Comparison

<table>
<thead>
<tr>
<th>P1 Supported?</th>
<th>Qualitative (Case Study) Analysis</th>
<th>Quantitative (Statistical) Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1 – Political Instability</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>H2 – Economic Instability</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>H3 – Social Instability</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>P2 Supported?</th>
<th>Qualitative (Case Study) Analysis</th>
<th>Quantitative (Statistical) Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>H4 – UN Resolutions</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>H5 – ROK Leadership Changes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>H6 – US Leadership Changes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>H7 – Strategic Military Exercises</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>H8 – ROK Administration Type</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

As shown above, both P1 (internal conditions) and P2 (external conditions) find mixed support across both the case studies and statistical analysis. The argument that internal conditions are related to external conflict, which supports the idea that the Kim regime used diversionary tactics to achieve internal stability, finds alternating support between the case studies and regression analysis. Additionally, the decreases in political and social stability (and increased HFP) were evident in the longer-term analysis rather than in the cases, which might indicate that the case periods were inadequate to analyze specific relationships between those conditions and conflict. Within the case studies, a limited number of historic events support P1, but only the quantitative analysis provides substantial evidence of a relationship between deteriorating internal conditions and heightened HFP activities.

The idea that external factors are influential in North Korea’s conflict activities (P2) finds support in both the case studies and statistical analysis. Two of the hypotheses (H5 and H8) demonstrate continuity in the case studies and quantitative analysis. This demonstrates that within the cases and throughout the DPRK’s history, the characteristics of the ROK government have impacted the level of hostile foreign policy activities. Additionally, throughout most of the case studies, external events did have an impact on the Kim regime’s tendency to use diplomatic or military force against the ROK or US. However, as with the evidence found in P1, the comparisons between the case studies and regression analysis require further explanation. For
example, while the case studies indicate relationships between UN resolutions, US leadership changes, and military exercises, the statistical analysis of these events show that between 1960 and 2011 there was no correlation between these events. In these cases, the case studies potentially demonstrate “anecdotal evidence” of relationships that exist to a limited extent during the case study periods, but that are not consistently present over time. For example, the presence of ROK-US military exercises might seem to increase hostilities on the Korean peninsula based on case study evidence, but when considered over the span of the study, these events demonstrate a limited relationship with HFP activities. This mixed-method approach sheds light on the conditions that influence North Korean conflict actions, but also demonstrates the complexity of these relationships.
Chapter 5 - Conclusions

North Korea's political economy and its external relations render it remarkably insensitive to either sanctions or inducements. Instead, its behavior appears driven to a significant extent by domestic political considerations and a preoccupation with regime survival.

Haggard and Noland (2011b)

This dissertation examines the relationship between North Korean conflict behavior and conditions faced by the regime and if diversionary theory provides a viable explanation for these activities. I test a number of hypotheses focused on the internal and external factors that are potentially related to the Kim regime’s use of hostile actions. I find that under very limited circumstances, domestic conditions do influence the Kim regime’s tendency to engage in hostile foreign policy activities. However, I find more substantial support for idea that external conditions are influential in HFP levels and that the Kim regime often reacted to external pressure with diplomatic and military HFP activities. To North Korean analysts, these conclusions will come as no surprise. But this study provides both statistically-sound (quantitative) and case study (qualitative) evidence to support the argument that North Korean conflict activities are related to specific conditions faced by the Kim regime. Although I have discussed most of the conclusions in previous chapters, the following paragraphs include a synopsis of the study, a brief review of the findings, policy implications, and suggestions for future research.

5.a. Goals, Methods and Limitations

In this research, I explore the historic relationship between the domestic conditions North Korean leaders experienced and their propensity to engage in “hostile” diplomatic and military activities. Additionally, I examine whether or not the concept of diversionary theory is an explanation for these actions. I initially propose there is a positive relationship between domestic unrest and external conflict activities. To test these ideas, I use statistical regression to analyze North Korean event data collected from both US and Korean sources from 1960-2011 and qualitative analysis using structured, focused, and process-tracing techniques to examine three case studies. I also demonstrate a method to examine closed states using mixed-method approaches. Academics have rarely used both history and political science methodology to
examine North Korean activities, often because of the lack of empirical data, but also because these two disciplines have separate research philosophies. In this study, I demonstrate the strengths of both disciplines: the inductive approach preferred by historians and the deductive analysis favored by political scientists. International relations scholars have used these methods to examine other states, but this research is currently the only publically available longitudinal study of its type on North Korea.

Additionally, this research demonstrates that despite being a “closed state,” North Korea’s characteristics and actions do allow for empirical study. The US and other states have declassified large amounts of information on the DPRK and the use of “mirror statistics” from nations that interact with North Korea provides an extensive amount of detailed data for analysis. This study also supports the contention that the DPRK is a unique country, perhaps unprecedented not only among communist nations, but among all states. North Korea’s national character is similar to former Stalinist states such as Romania and Albania, but it has managed to remain intact without substantial change (Buzo 1999, 245). In addition, unlike China and Vietnam, North Korea has not attempted significant reform or engagement of the international community, retaining the moniker “the Hermit Kingdom” despite the vast progress enjoyed by those states and its other half, South Korea. This analysis is an important effort to analyze a state that is both distinctive and rarely studied in a mixed-methods manner.

As with all studies, this one has its limitations. My own “Western bias” and personal experiences working in South Korea might have affected this examination of North Korea. Yet North Korea’s actions are generally recognized as threatening to the region and the international community shares concerns about the effects of DPRK foreign policy activities. At the same time, I have sought to objectively explain why the Kim regime engages in peaceful interaction at some times and in hostile behavior during others, regardless of the consequences of

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375 As previously discussed, Michishita (2011) and Jung (2012) are the only other scholars that have used these types of methods to examine DPRK conflict activities.
376 Jung’s (2012) study remains an exception and his study of diversion using quantitative cross-national analysis and case studies on Korea is a useful addition to scholarship on the DPRK.
377 Buzo (1999, 245) notes that although North Korea was similar to these states, “it has not shared their fate” and remains intact. The fact that North Korea has eluded collapse over the past few decades (especially during periods of severe distress, such as the famine in the 1990s) has continued to puzzle scholars and policymakers. Analysts, such as Eberstadt (1993, 1999), have consistently predicted the end of North Korea is near, yet the Kim regime continues to “muddle through.”
378 I spent three military “tours of duty” in Korea. The first (1995 to 1997) was with 2ID and the 501st Military Intelligence Brigade, and during the second and third (2002-2004 and 2005-2008), I was assigned to the USFK J2. As of this writing, I am now again working at the USFK J2 during my fourth tour in Korea.
those activities (e.g., significant levels of ROK and US casualties). Another limitation for this study was the availability of dependent variable data (conflict events). Although the sources used for this analysis are among the best currently available, not all diplomatic and conflict incidents are reported in the open press. Additionally, there is only limited reporting on ROK and US military actions taken against the DPRK. For example, over the last few decades, the ROK conducted infiltration operations against the DPRK that were rarely acknowledged in the open press (Rennie and Mars 2000). A full account of actions on both sides of the DMZ would provide for a better understanding of the nature of conflict on the peninsula. Finally, this study only considered diversionary theory as an explanation for the Kim regime’s actions. Diversionary concepts are important, but might not be completely able to explain North Korea’s conflict activities. Expanding the scope of this study to examine other conflict theories that provide explanations for North Korean conflict, a technique used by Jung (2012), might result in a more comprehensive explanation of the regime’s actions from a theoretical perspective.379

Despite the limitations mentioned above, one of the most important outputs of this research is to provide an example of how to analyze North Korea’s conflict behaviors. While the data sources and the statistical analysis methods might change, the overall concept of how to approach this security dilemma in a systematic manner is an important contribution of this study.

5.b. Findings

This study provides a glimpse into the conflict activities of a closed state that academics have rarely studied in a systematic manner. My findings provide only very limited support to the argument that internal conditions are influential in the Kim regime’s external conflict activities (P1).380 External conditions, especially those associated with the ROK government and strategic exercises, were found to be significant across both the quantitative and qualitative studies in support of P2. Additionally, I find that diversionary theory provides only limited explanatory power for North Korean HFP activities. Diversion might be a necessary component of the Kim regime’s policies to achieve national goals, but it remains insufficient to adequately explain the

379 This is an important limitation of this study, but both propositions are theoretically-grounded, Proposition 1 is based on diversionary theory and Proposition 2 is based on traditional views of conflict (Waltz 1954; 1979; Wendt 1992). For my intended scope of this study, the focus on diversionary theory (in both the literature review and analysis) is sufficient to support the examination of DPRK conflict.

380 This confirms Michishita’s (2009; 2011) finding and comments that diversion was not the primary impetus for DPRK conflict activities.
scope of conflict actions pursued by the DPRK. Finally, this research also confirms the idea that the Kim family’s primary objective is to maintain power and survive.  

My quantitative and case study analyses demonstrate that some of the domestic conditions experienced by the Kim regime occur in conjunction with changes in the levels of conflict. The quantitative study demonstrates that as North Korea’s political (CINC score) and social (food availability) stability decreases, there are increases in conflict. The qualitative study added that specific economic events (e.g., the economic downturns in the late 1960s and 1990s, and the currency crisis in the 2000s) were related to specific hostile foreign policy events. Additionally, both the quantitative and qualitative studies find that conflict actions were influenced by a number of external conditions in South Korea, such as election cycles and type of ROK government tended throughout the entire span of the study. I also find that North Korea did engage in heightened levels of conflict after the Cold War (as supported by the quantitative analysis), but the DPRK also engaged in significant conflict during the height of the Cold War (as supported by both the event data and first case study).

Finally, the proposal that diversionary behavior occurred was difficult to discern from the quantitative analysis, and required additional research using three case studies. The three case studies did include instances of diversionary-type behavior. Yet when the overall hostility levels were compared to the conditions present in the case studies, support for P1 and diversionary concepts were limited as a means to explain North Korea’s activities. Diversion was one of many methods used by the Kim regime to control its people and other more oppressive methods were routinely used in response to domestic challenges.

5.c. Policy Implications

An important output of this research is identification of how North Korea uses force as a means to achieve policy objectives, whether oriented towards domestic goals or in reaction to external threats. My conclusions in this study, including observations on the use of diversionary means and the Kim regime’s emphasis on retaining power, help provide insight into the cyclic nature of how the DPRK interacts with other states. The strength of this research is that it provides empirical evidence on the historic characteristics and patterns of the Kim regime. The findings support the view that international community actions have only a limited effect on...
North Korea’s behaviors and the strongest influencers tend to be the activities of the ROK government.

International diplomatic efforts and economic sanctions that have sought to change North Korea’s behavior have generally failed, as evidenced in the second and third case studies. All three of the case studies show that internal dynamics are important influencers of DPRK behaviors. This research provides support to the idea that international community policies aimed at changing those internal conditions are more likely to be successful. Additionally, China’s efforts to support North Korea in times of extreme domestic challenges have most likely kept the Kim regime solvent. Based on its historic interactions with the DPRK, Beijing seems to prefer a divided Korean peninsula with a sovereign North Korea. Thus, this study provides support to the contention that China’s primary policy objective is to keep North Korea solvent through aid and economic support (CRS 2010, 1; Lee and Choi 2009, 57). Any policy action that leaves the support channel between China and North Korea intact is likely to have little impact.

Yet, North Korea continues to pose significant threat to the international community and the Kim Jong-un regime seems more willing than his father to directly threaten both the US and South Korea with nuclear warfare (KCNA 2013b). Additionally, the DPRK’s actions since the death of Kim Jong-il, which have included additional nuclear testing and missile launches, have demonstrated that the North possesses the capability to make good on its threats of attack against the US or ROK. Consequently, the international community has little choice but to take North Korea’s actions seriously and deterrence efforts, such as strong regional security alliances and anti-proliferation activities, are useful responses to these types of behaviors.

Despite international community efforts to change North Korea’s behavior, the Kim regime’s enduring trait has been its ability to chart an independent course regardless of internal or external circumstances. Thus, while deterrence efforts are necessary, they often have little effect on North Korea’s proclivity to engage in conflict actions. Other methods of engagement with North Korea that focus on its lack of information about the outside world, are alternative policy options, and might help the North Korean people understand the nature of both their
government and its leader. Additionally, continued exposure of North Korea to the international community through academic, cultural, or even technological exchanges might also serve to lessen the strict control that the Kim regime has on its people. These types of exchanges had a profound impact on the Soviet Union (Richmond 2003) and, while the DPRK is culturally different from the former USSR, visits by sports teams, scholars, or musicians are often welcomed by the regime (Wakin 2008; Zinser 2013). “Soft power” actions of these types are relatively inexpensive, entail little risk to participants, and might spur small changes to North Korean society that would otherwise be impossible.

5.d. Future Research

This analysis of North Korea only begins to explore what is possible given publically available DPRK conflict data. Additionally, this dissertation provides a foundation for further research and debate on North Korea’s armed and political actions. Methods described here, especially the longitudinal analysis of a single state, can be used as a template for gathering and analyzing data on other states with limited outside access. Analyzing other sources of event data information, such as King and Lowe’s (2003b) “10 Million International Dyadic Events,” might provide additional insight to DPRK activities. Additionally, scholars’ use of automated methods to extract data from media sources to compare against these findings might also be an important way to verify (or refute) my conclusions in this study. In addition, as mentioned in the limitations discussion above, expanding the view of DPRK actions beyond the theoretical concept of diversionary war might provide for a better understanding of North Korea’s willingness to engage in conflict and peace. Finally, as more accurate or additional DPRK data becomes available, using these same methods to examine new information would be an important way to determine if the trends identified in this study continue to occur in the “newest” Kim regime.

382 Hassig and Oh (2009, 251-252) discuss the merits of “information warfare” and note that an effective campaign could “successfully introduce the North Korean people to a new way of thinking about their government and their society.”

383 Compared to North Korea, the USSR historically demonstrated a much greater willingness to allow for international cultural and athletic exchanges with the West (Richmond 2003). These types of exchanges do occur in North Korea, but they are relatively rare.

384 Jung (2012, 20) examines not only diversionary war theory, but also offensive realism, opportunistic war, and his own “diversionary target theory” while analyzing DPRK conflict actions.
5.e. Final Thoughts

Literature on the threat posed by the Kim regime is widely available from political scientists, historians, and practitioners. These individuals continue to pursue the same question: “What should be done about North Korea?” As I have shown in this study, only a handful of scholars have attempted to use social science and historical methods to analyze this isolated state. My research begins to help fill this gap in current knowledge about this reclusive, yet potentially very dangerous nation. The conclusion that external conditions are an influential force behind North Korea’s actions is a significant observation. More importantly, the extensive use of historical data to empirically support this contention is an important step in understanding the recurrence of conflict on the Korean peninsula. While deterrence and other efforts to mitigate North Korea’s military threat to the international community, other actions (such as the socio-cultural options mentioned above) also might help to nudge the Kim regime towards becoming a more active member of the international community. In any case, this research provides not only important observations on the characteristics of the Kim regime, but also gives scholars a means to analyze a security problem that confounds the international community. More importantly, this research informs more effective policymaking in hopes of solving an enduring security dilemma in East Asia.
References


Social Analysis.


Hailey, Foster. 1956. “Big Armies in Korea Observe Uneasy Truce: Buildup on Communist


Kang, David C. 2011. Email correspondence with author. 30 August 2011.


Kansas Events Data System (KEDS). *Kansas Events Data System Website.*


KCNA. 1996c. “Further on Vice Premier Discussing Food Aid at FAO Meeting.” *Korea


Levy, Jack. 2001b. “Explaining Events and Developing Theories: History, Political Science, and the Analysis of International Relations.” Colin Elman and Miriam Elman, eds. Bridges and
Boundaries: Historians, Political Scientists, and the Study of International Relations.
Cambridge, MA: MIT Press.


Moskovsky, Vasily. 1962. “Memorandum of Conversation between Soviet Ambassador to
North Korea Vasily Moskovsky and Kim Il Sung.” 1 November 1962. Cold War
14 December 2012.
September 1963. Cold War International History Project.
Most, Benjamin, and Harvey Starr. 1989. Inquiry, Logic, and International Politics. Columbia:
University of South Carolina Press.
Mulready-Stone, Kristin. 2013. Email communication with author.
Brooklyn, NY: Melville House.
Nagourney, Adam. 2008. “McCain is undone by economy, Bush and star power.” 6 November
January 2012.
Asian Perspective 30: 141-166.
Nam, Koon Woo. 1974. The North Korean Communist Leadership, 1945-1965; A Study of
Research Service.
Nanto, Dick K., and Emma Chanlett-Avery. 2008. The North Korean Economy Background and


Pickering, Jeffrey. 2011. Email communication with the author (14 October 2011).


Prybyla, Jan S. 1964. “Soviet and Chinese Economic Competition within the Communist


ROK MOU (Republic of Korea Ministry of Unification). 2012b. “Data on number of North Korean refugees prior to 1990 cannot be released to the public.” Email communication with author. 1 November 2012.


247


VPA (Vietnam People’s Army). 1966. “General Vo Nguyen Giap’s Decision On North Korea’s


260
http://english.yonhapnews.co.kr/northkorea/2012/01/30/84/0401000000AEN20120130006800315F.HTML. Accessed 1 November 2013.


Appendix A - Azar’s Event Categories

Azar (1993, 27-29) provided the following descriptions for each of his categories for coding events:

“[category] 9. **Mild verbal expressions displaying discord in interaction**: Low key objection to policies or behavior; communicating dissatisfaction through third party; failing to reach an agreement; refusing protest note; denying accusations; objecting to explanation of goals, position, etc.; requesting change in policy.

10. **Strong verbal expressions displaying hostility in interaction**: Warning retaliation for acts; making threatening demands and accusations; condemning strongly specific actions or policies; denouncing leaders, system, or ideology; postponing heads of state visits; refusing participation in meetings or summits; leveling strong propaganda attacks; denying support; blocking or vetoing policy or proposals in the UN or other international bodies.

11. **Diplomatic-economic hostile actions**: Increasing troop mobilization; boycotts; imposing economic sanctions; hindering movement on land, waterways, or in the air; embargoing goods; refusing mutual trade rights; closing borders and blocking free communication; manipulating trade or currency to cause economic problems; halting aid; granting sanctuary to opposition leaders; mobilizing hostile demonstrations against target country; refusing to support foreign military allies; recalling ambassador for emergency consultations regarding target country; refusing visas to other nationals or restricting movement in country; expelling or arresting nationals or press; spying on foreign government officials; terminating major agreements.

12. **Political-military hostile actions**: Inciting riots or rebellions (training or financial aid for rebellions); encouraging guerilla activities against target country; limited and sporadic terrorist actions; kidnapping or torturing foreign citizens or prisoners of war; giving sanctuary to terrorists; breaking diplomatic relations; attacking diplomats or embassies; expelling military advisors; nationalizing companies without compensation.

13. **Small scale military acts**: Limited air, sea, or border skirmishes; border police acts; annexing territory already occupied; seizing material of target country; imposing blockades; assassinating leaders of target country; material support of subversive activities against target country.

14. **Limited war acts**: Intermittent shelling or clashes; sporadic bombing of military or industrial areas; small scale interception or sinking of ships; mining of territorial waters.

15. **Extensive war acts causing deaths, dislocation or high strategic costs**: Use of nuclear weapons; full scale air, naval, or land battles; invasion of territory; occupation of territory; massive bombing of civilian areas; capturing of soldiers in battle; large scale bombing of military installations; chemical or biological warfare.”
Appendix B - Database Construction

Research on a closed state can be a difficult task and North Korea is no exception. Data from the North Korean government is often either not available or highly suspect – thus any study of the DPRK must incorporate reporting from external sources.\(^\text{385}\) Fortunately, the dependent variable data (hostile foreign policy events) was available from US and South Korean sources, and from official government pronouncements from North Korea. Much of the other data was available from “mirror statistics” and relied upon information on DPRK from other states. While data limitations are a concern, one of the overarching goals of this dissertation is to demonstrate a method (regardless of the data) to examine closed states. Despite these shortcomings, the data used in this project is the best public information available on North Korean activities.

Event data is typically taken from public sources (newspapers, journals, and broadcasts) – unfortunately, this information is often an “imperfect summary of the events...[that] varies according to the needs of the reporters rather than the scholarly need for representativeness” (King and Lowe 2003a, 617).\(^\text{386}\) The information used in this dissertation includes event data from multiple, often overlapping sources from government and media sources, in an attempt to ensure accurate recording of key events.\(^\text{387}\) The event dataset used for this research also relies upon US government reports (from on and off the peninsula), South Korean Unification Ministry data, and North Korea government reports from the DPRK’s official news agency, the Korea Central News Agency (KCNA). The database is a compilation of events from these sources and I translated approximately 45% of the reports (1500 of over 3500 reviewed) from Korean to English (the dataset is enclosed in Appendix C).

Other event data projects rely on automated collection of interstate actions, which saves considerable amounts of time and expense, as compared to individual data collection executed by hand. King and Lowe (2003a) have used this technique to construct a database of over 10

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\(^\text{385}\) Internal surveys and research in North Korea are rare, although some important data was collected by aid organizations during the famine period on the social characteristics of North Korea (Woo-Cumings 2002). Most survey data on North Korea social and political conditions comes from refugees, especially those in China (Haggard and Noland 2011a).

\(^\text{386}\) This demonstrates the pitfalls of using event data for analysis and the need for multiple sources of information to increase the fidelity of the data.

\(^\text{387}\) The government reports and chronologies used in this research rely heavily on media reporting from US, ROK and DPRK sources (Fischer 2007; UNC 2012).
million dyadic interstate activities from 1990 to 2004, coded into 200 events (using a typology based on the WEIS methodology).\textsuperscript{388} While the automated data collection technique is generally successful for states with freedom of the press, strictly using media reporting to analyze state behavior (Rummel 1966; Azar 1978; McClelland 1999; King and Lowe 2003a), can result in overlooking key events that may have been unreported due to political restraints.

This is particularly problematic when examining South and North Korea, due to freedom of press issues. For example, while the lack of press freedom in North Korea is well-known, it is less commonly known that the era of authoritarian regimes in South Korea (which ended with the election of Kim Young-sam in 1993) included significant limitations on press freedom through measures such as the ROK’s \textit{Military Secrets Protection Act} (Youm 1994).\textsuperscript{389} Thus, the sole use of media reports to construct an event database on North Korea provides an inadequate representation of hostile foreign policy actions. Using a mixture of official government reports, media, and other sources provides the best available data to form such a database. For this reason, I compiled and standardized information from multiple sources to populate the database used in this study. My intent was to construct a database with accurate information available from North Korean, U.S. and ROK government sources.

The event data analyses techniques mentioned above provide the basis to analyze North Korea’s \textit{hostile foreign policy} events and I categorized and scored these events using Azar’s COPDAB definitions and scaling.\textsuperscript{390} Using views of state interaction that expand beyond conflict provides for a more holistic analysis of the influencers of state actions, especially for totalitarian regimes such as North Korea. For this research, a new database was constructed using hand coding of event intensity data from the resources mentioned previously.\textsuperscript{391}

\textsuperscript{388} While automated methods are useful in other project focused on large cross-national studies of English media sources, the information in this study of North Korea is both in English and Korean language. Thus the hand coding of events, while painstaking and time-intensive, provided the most appropriate method to systematically categorize this data.

\textsuperscript{389} Youm (1994) notes that critics of this law “claimed that the statute, which proscribed the unauthorized gathering and the intentional and negligent disclosure of military secrets, infringed upon their constitutional rights to free speech and free press.”

\textsuperscript{390} This method is based on Nincic (1975, 624), Azar (1982, 36), McClelland (1999, 1), and Goldstein (1992, 376-377). See text above for an explanation of the scaling in the COPDAB and WEIS data.

\textsuperscript{391} Hand coding refers to the analysis and selection of event data by an individual researcher or group of researchers without the aid of automated (computerized) scanning processes. While automated (machine) coding could have been used for some of the data (and would have been much less time-intensive), hand coding was chosen due to language, analysis and duplication concerns. For example, much of the event information was recorded an analyzed in Korean (rather than English) and other events needed additional context (relationship to other events and
I used a number of primary sources of information to construct the event database used in this analysis: the USFK Command History Office, the United Nations Command (UNC); South Korea’s Korean Institute for National Unification (KINU); Fischer’s CRS Report; and media reports from the KCNA website, New York Times Historical Archives, and Lexis-Nexis Academic Search. The dataset used for this analysis includes event information from multiple, often overlapping, sources in an attempt to ensure inclusion of all key events. While most of the reports were available in English, the KINU (2012) report from the South Korean government was only available in Korean and required translation. For those reports, the accuracy of the data is limited by the translation method used. All of the events included in the database were hand coded, crosschecked for duplication, and scaled using Azar’s (1993) coding system.

Figure B.1 Event Data Sources

- UN CMD History Files (250)
- Finley’s History of USFK (300)
- KINU Korean Interactions (1600)
- Fischer’s CRS Report (170)
- Media Reports (1200 events)

2100 total
(after analysis)

conditions): both of these conditions required careful attention for accurate coding. Duplicate reports of events also required that each event be carefully screened. As a result, hand coding provided the best “fit” for this analysis.

392 These reports were translated initially using automated methods (Google Translate) and then were reviewed for accuracy.
I obtained information for military hostile foreign activity data from two primary sources: the USFK Command History Office’s history of US forces in Korea (which included event data from 1960-1982) (Finley 1984) and historical lists of events provided by the United Nations Command (UNC) in Korea. These two sources provided over 600 diplomatic and military events, all of which were included in the database. The South Korean government’s Korean Institute for National Unification (KINU) maintains a database of “Korean Civil Interactions” which includes hostile and benign interactions between the DPRK and ROK (KINU 2011). This database, available only in Korean, lists over 1,600 events that occurred between 1960 and 2011. Bond (2003) used this information previously to analyze DPRK conflict activity (KINU 2011). Another source was the Congressional Research Service chronology of DPRK “provocations” from 1950-2007 (Fischer 2007). This report summarizes open source and media reports on DPRK activities and includes over 170 events. Finally, I conducted keyword searches for incidents and military/political pronouncements in the New York Times Historical Archive and Lexis-Nexis Academic Search media databases, and the KCNA website resulting in over 1,200 events for use. In the media searches, foreign ministry and military pronouncements were for the database (rather than all KCNA news reports which criticized the US and ROK) because those announcements represent the highest level of foreign policy communication by the North Korean government. Of over 3,500 events analyzed for relevance and duplication, I constructed a database that included 2,100 incidents of DPRK hostile foreign policy.

After reviewing the data, I had to make data adjustments to account for differences in characteristics of the dependent variable (conflict) data and the independent variables. Specifically, the DVAR was reported as events (with a specific date associated) and the IVARs and control variables were reported in yearly increments, thus I transformed the data to allow for statistical analysis. Initially, I ran models using monthly, quarterly and yearly aggregation and found that the models using quarterly data provided the best representation (and best statistical fit) of the data to the research question. Monthly data, although available for the hostility (dependent variable) data, required too much manipulation of the other variables while models

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393 An official with the United Nations Command in Seoul provided event data on DPRK-US-ROK interactions from 1960-2011 (UNC 2012). The same information is publicly available in media reports.
394 I searched these sources, and usually found duplicate information (which allowed for cross-checking and verification). Again, the only provocative statements used in the analysis were from Lexis-Nexis, New York Times, and KCNA databases for foreign ministry and military pronouncements (rather than all negative reports on the US) since they represent the highest level of communication from the DPRK government.
using only yearly data provided too few observations (52 total). Thus, using quarterly data provided a suitable “middle solution” that afforded an acceptable number of observations for analysis without causing significant problems with collapsing yearly data into reportable units. King, Keohane and Verba (1994, 221) discuss problems with research involving small numbers of observations. Using quarterly (rather than yearly) data helped address this issue.

As a result, I aggregated the hostile foreign policy events by quarter in order to provide enough occurrences to allow for regression analysis and consistency with independent variables. For each quarter, I summed and annotated the total event intensities and calculated scaled quarterly hostile foreign policy events using the following equation:

\[ HI_{\text{qtr}} = \sum_{i=1}^{n} S_{E_i} \]

where \( HI_{\text{qtr}} \) is the quarterly total intensity of hostile foreign policy events, \( S_{E_i} \) is the Azar score for the \( i^{\text{th}} \) event, and \( n \) is the total number of events. A simplified example and calculation follows:

**Table B.1 Quarterly Hostile Intensity Scoring**

Hostile Event (Ei) in a given quarter:

<table>
<thead>
<tr>
<th>Category</th>
<th>Azar Score (( S_{E_i} ))</th>
</tr>
</thead>
<tbody>
<tr>
<td>E1: DMZ firefight</td>
<td>13</td>
</tr>
<tr>
<td>E2: Kidnapping of ROK citizen</td>
<td>12</td>
</tr>
<tr>
<td>E3: Mild Diplomatic protest at UN</td>
<td>9</td>
</tr>
<tr>
<td>E4: Expulsion of Foreign Press</td>
<td>11</td>
</tr>
</tbody>
</table>

\( HI_{\text{qtr}} =129 \)

Thus, the hostility intensity score in Table B.1 is 129, which is the product of all of the hostile events that occurred during that quarter. For each quarter, I calculated the intensity level and included in the statistical analysis. As noted previously, these measures allow for the proportionality of events to be included in the analysis.

My choice to use quarterly data did require adjustments due to missing data, as there were entire years in which data was not reported. To fill in gaps in annual reporting, I used single imputation using arithmetic mean or the last known values. While this is not optimal

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395 Monthly and yearly aggregation of events were both considered and tested. Quarterly aggregation provided the most consistent event data calculations for analysis and provided enough fidelity to identify long-term trends without over-generalizing the data.
(original data is always preferred) and possibly induces some bias, this is more desirable than dropping the years with incomplete data (an alternate solution) which would result in the omission of critical observations.\textsuperscript{396} I included both the estimated and reported data in the analysis.

For the continuous variable data reported on a yearly basis, I collapsed that information into quarterly data reports for analysis using interpolation methods. Table B2 provides an example of the interpolation technique I used in this analysis:

Table B.2 Data Adjustments and Quarterly Estimate Examples\textsuperscript{397}

<table>
<thead>
<tr>
<th>Yearly Reports (original)</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP Per Person (per year)</td>
<td>$1,500</td>
<td>1,600</td>
<td>1,700</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
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<td>4th Qtr</td>
<td>1st Qtr</td>
<td>2nd Qtr</td>
<td>3rd Qtr</td>
</tr>
<tr>
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<td>1,550</td>
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<td>1,600</td>
<td>1,625</td>
<td>1,650</td>
<td>1,675</td>
</tr>
</tbody>
</table>

Note: GDP is interpolated each quarter and yearly data is annotated as the final quarter.

As shown in Table B.2, I assume yearly reports are valid on 31 December – thus the reported data for 2000 was valid in the final quarter of that year. GDP growth for each quarter in 2001 was shown as increasing from $1,525 to $1,600 and interpolated to account for the change between 2001 and 2002. I used the technique shown above for GDP for all of the continuous independent variables except for infant mortality. For that measure, which included reporting that included averages spanning several years (especially during the Cold War period), I adjusted the data based on the reporting years and interpolated to account for increases or decreases in the observation values.

\textsuperscript{396} Baraldi and Enders (2010), and Howell (2012) discuss the merits and risks of this approach. While there are more sophisticated methods (such as multiple imputation) available (see King et.al 2001), after examining imputation options, the simplest solution and best fit for this data was to simply input data based on arithmetic mean or the last known value.

\textsuperscript{397} These numbers are simulated for clarity.
Appendix C - Korean Conflict Dataset

Figure C.1 Korea Conflict Dataset (by quarter)

<table>
<thead>
<tr>
<th>Year</th>
<th>Qtr</th>
<th>Score</th>
<th>DPRK CINC</th>
<th>WGI</th>
<th>GDP pp</th>
<th>Trade pp</th>
<th>Refugees</th>
<th>Infant Mort</th>
<th>Food pp</th>
<th>UN Res</th>
<th>Mil Exercise</th>
<th>US Leader</th>
<th>ROK Leader</th>
<th>ROK Admin</th>
<th>Cold War</th>
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<td>6</td>
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Appendix D - Diagnostic Tests

Purpose and Considerations

• These slides show the diagnostic tests conducted during the quantitative analysis portion of this research

• Data was aggregated quarterly (1960 to 2011)

• Initial analysis was done using OLS, then AR(1)

• *Stata* statistical software used to analyze data
Model Characteristics

- **Model 1**: All data (minus WGI, UN Resolutions, and Refugees) (1960-1991)
- **Model 2**: Model 1 plus WGI (1996-2011)
- **Model 3**: Model 1 plus UN (1992-2011)
- **Model 4**: Model 1 plus Refugees (1992-2011)

*The final versions of these models are shown on the following slides*

**FINAL MODEL 1 – AR(1) Regression**

Cochrane-Orcutt AR(1) regression -- iterated estimates

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**Diagnostic Tests**

- **Model 1**: All data (minus WGI, UN Resolutions, and Refugees) (1960-1991)
- **Model 2**: Model 1 plus WGI (1996-2011)
- **Model 3**: Model 1 plus UN (1992-2011)
- **Model 4**: Model 1 plus Refugees (1992-2011)

The diagnostic tests conducted on each of these models are shown on the following slides
Model 1
Base Model (does not include WGI, UN Resolutions, or Refugees)
(1960-2011)

Data Summary – Model 1 (1960-2011)

. summarize score dprkcincq gdppp totaltradepp infmortq foodppq exerciseq usldrq rokldrq adminq coldwarq

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Initial Regression Results – Model 1 (1960-2011)

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| score     | Coef. | Std. Err. | t     | P>|t|  | [95% Conf. Interval] |
|-----------|-------|-----------|-------|-----|----------------------|
| dprkcincq | -71338.91 | 11701.44 | -6.10 | 0.000 | -94415.08 | -48262.74 |
| gdppp     | -1069331.1 | .041064 | -2.60 | 0.010 | -1879145.8 | -2055137 |
| totaltradepp | -335.3612 | 293.1077 | -1.14 | 0.254 | -913.3926 | 242.4704 |
| infmortq  | -10.01718 | 2.822926 | -3.55 | 0.000 | -15.58421 | -4.450344 |
| foodppq   | -430.457 | 1469.424 | -2.96 | 0.003 | -7248.278 | -1452.636 |
| i.exerciseq | -0.073792 | 24.75548 | 0.00 | 0.998 | -46.74659 | -48.89495 |
| i.usldrq  | -43.06871 | 44.91563 | -0.96 | 0.339 | -131.6459 | 45.50847 |
| i.rokldrq | -54.42962 | 40.63883 | -1.34 | 0.182 | -134.5956 | 25.69036 |
| i.admnq   | 185.7859 | 41.58591 | 4.47  | 0.000 | 103.7752 | 267.7966 |
| i.coldwarq | -284.41578 | 66.52627 | -4.28 | 0.000 | -415.6128 | -153.2227 |
| _cons     | 237.678 | 323.7902 | 0.73  | 0.467 | 1539.083 | 2808.274 |

Correcting for Time Series - Lagging

```
.xf: reg score dprkcincq gdppp totaltradepp infmortq foodppq i.exerciseq i.usldrq i.rokldrq i. admnq i.coldwarq
```

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>Number of obs = 207</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>1682147.54</td>
<td>10</td>
<td>168214.754</td>
<td>1.113</td>
</tr>
<tr>
<td>Residual</td>
<td>521469.95</td>
<td>196</td>
<td>26129.9442</td>
<td>0.2666</td>
</tr>
<tr>
<td>Total</td>
<td>6996186.59</td>
<td>206</td>
<td>33991.0514</td>
<td>1.6527</td>
</tr>
</tbody>
</table>

| score     | Coef. | Std. Err. | t     | P>|t|  | [95% Conf. Interval] |
|-----------|-------|-----------|-------|-----|----------------------|
| dprkcincq | -70772.33 | 11473.03 | -6.17 | 0.000 | -93398.66 | -48145.8 |
| gdppp     | -3233997 | .004498 | -7.05 | 0.003 | -2037125 | -4036269 |
| totaltradepp | -385.8384 | 295.9783 | -1.24 | 0.218 | -949.5494 | 237.8277 |
| infmortq  | -11.09701 | 2.787999 | -3.98 | 0.000 | -16.59534 | -5.598682 |
| foodppq   | -4395.26 | 1442.024 | -3.05 | 0.003 | -7249.135 | -1561.385 |
| i.exerciseq | -42.39629 | 24.35866 | -1.74 | 0.083 | -90.435 | 5.642414 |
| i.usldrq  | -32.66524 | 44.0373 | -0.74 | 0.459 | -219.523 | 154.19253 |
| i.rokldrq | 63.8228 | 39.83932 | 1.60 | 0.112 | -24.95694 | 142.181 |
| i.admnq   | 197.781 | 40.76947 | 4.85  | 0.000 | 117.3779 | 278.1842 |
| i.coldwarq | -273.4435 | 65.21866 | -4.19 | 0.000 | -402.0639 | -144.8231 |
| _cons     | 2239.494 | 315.9938 | 7.09  | 0.000 | 1616.309 | 2862.678 |

Note: This is to ensure that the variables are examined temporarily (IVARs precede DVAR) to correct for possible endogeneity (dependent variable causing changes in indep variables)
Corrections for Time Series Effects

- All of the independent variables were lagged by one quarter to ensure that the variables are examined temporally (IVARs precede DVAR). Additionally, this attempts to correct for possible endogeneity (dependent variable causing changes in independent variables).
- Results are still disappointing - model explains only 22% of the variance.
- This is an acknowledged characteristic of the data.

Tests for Specification Errors

```
. otest
Ramsey RESET test using powers of the fitted values of score
Ho: model has no omitted variables
F(3, 193) = 22.46
Prob > F = 0.0000

. ovtest
```

Specification bias not present (should be > than .05)

```
hat should be <.05 and _hatsq should be >.05 (specification bias present)
```

Model 1

POSSIBLE SPECIFICATION ERROR
Corrections for Specification Errors

- Transformed model is possibly misspecified (based on Ramsey RESET and link test), but all of the variables are required for the theory. Additionally, other variables are not available.

- This is acknowledged as a characteristic of the data.

Tests for Heteroscedasticity

Remedy (if needed):
- Use Robust SE option or transform variables (log)

These numbers should both be >.10

Indicates possible problems with heteroscedasticity

Remedy (if needed):
- Use Robust SE option or transform variables (log)

Robust Standard Errors Option used (see next page)
New Regression w/ Robust Standard Errors

Model 1

```
Model is statistically significant

NOTE:  This is the NEW Model based on adding robust standard errors

Tests for Autocorrelation

BG LM indicates autocorrelation (P-values should be > .05 if there is no autocorrelation)

Gujarati amd Porter (2009, 889) Rejection Zones:
k=11 n=207
Rejection zone is 1.561 to 1.791

Model 1

AUTOCORRELATION POSSIBLY PRESENT
```
Correcting for Autocorrelation

Model 1

| Score | Coef. | Std. Err. | t | P>|t| | [95% conf. interval] |
|-------|-------|-----------|---|------|------------------------|
| dkrk  | -5.5154.67 | 17.6089.03 | -5.27 | 0.000 | -90.695.77 - 85276.08 |
| gdp   | -0.0917951 | 0.0046149 | -1.36 | 0.181 | -6201.872 938.7224 |
| total  | -7.236242 | 4.765377 | -1.52 | 0.331 | -16.63454 2.820953 |
| food  | 2.304323 | 2488.251 | -1.47 | 0.144 | -826.268 3256.73 |
| L.exercise  | -2.169023 | 226.5084 | 2.169023 226.5084 |
| L.cold  | -29.76427 | 30.1161 | -0.97 | 0.331 | -89.92154 30.4328 |
| L.hold | 2.937294 | 1.348074 | 2.22 | 0.029 | 10.29929 156.4444 |
| L.adm  | 2.098972 | 8.579089 | 0.28 | 0.748 | -99.82906 98.1590 |
| L.food  | -130.6184 | 1.831.313 | -0.70 | 0.487 | -339.7825 19.93825 |

Cochrane-Orcutt AR(1) regression -- iterated estimates

OLS Significant variables (Robust SE) – CINC, GDP, Inf Mort, Food, ROK Admin, Cold War (.01 level); Exercise (.10 level)

Robust Standard Errors Added

AR(1) Significant variables (Robust SE) – CINC, Cold War (.01 level); ROK Admin (.05 level); Food (.10 level)
Tests for Multicollinearity

**Correlations**

Tests for Multicollinearity: Joint f test

```stata
. test 1.dprkcincq 1.gdppp 1.totaltradepp 1.infmortq 1.foodppq 1.exerciq 1.usidrq 1.robdrq 1.admirq 1.colmarq
( 3)  L.dprkcincq = 0
( 2)  L.gdppp = 0
( 3)  L.totaltradepp = 0
( 4)  L.infmortq = 0
( 5)  L.foodppq = 0
F( 5, 196) = 13.01
Prob > F = 0.0000
```

This number should be < 0.05. If so, then reject the null that the coefficients are equal to zero (thus multicollinearity is probably not present)

**VARIABLES ARE INDEPENDENT – MULTICOLLINEARITY PROBABLY NOT PRESENT**
FINAL MODEL 1 – AR(1) Regression

Cochrane-Orcutt AR(1) regression -- iterated estimates

Linear regression

| Score | Coef. | Std. Err. | t | Pr(> | | 95% conf. Interval |
|-------|-------|-----------|---|-------|----------------------|
| alcohol | -5.154 | 17.069 | -0.307 | 0.767 | -90.553 | -97.750 |
| gdp | -0.0817065 | 0.0705419 | -1.195 | 0.238 | -2.07984 | 0.913278 |
| totaltrade | -0.345982 | 2.45714 | -0.140 | 0.895 | -7.23832 | 3.12532 |
| food | -0.634759 | 21.60799 | -0.002 | 0.999 | -9.516851 | 8.782527 |
| l.exercise | -0.1829045 | 0.170923 | -1.084 | 0.281 | -0.508285 | 0.143395 |
| l.walking | -0.2974627 | 21.42722 | -0.027 | 0.979 | -7.534952 | 7.924908 |
| l.running | 0.0157814 | 0.012061 | 1.304 | 0.194 | -1.539255 | 18.682749 |
| l.doing | 0.1041997 | 0.108612 | 0.965 | 0.334 | -1.331239 | 1.539648 |
| l.cycling | -0.1793121 | 58.40637 | -0.009 | 0.999 | -295.0579 | 284.7279 |
| rho | 1.0164872 | | | | | |

Durbin-Watson statistic (transformed) 2.306403
Durbin-Watson statistic (original) 0.926817

The Model is statistically significant.
The Model explains 12% of the variation.

Model 1

Model 2

Model 1 plus WGI (limited to 1996-2011)
Data Summary – Model 2 (1996-2011)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>score</td>
<td>64</td>
<td>201.6406</td>
<td>134.7728</td>
<td>18</td>
<td>631</td>
</tr>
<tr>
<td>dprkcincq</td>
<td>64</td>
<td>.0117826</td>
<td>.0011573</td>
<td>.009815</td>
<td>.012988</td>
</tr>
<tr>
<td>wgiq</td>
<td>64</td>
<td>-.0803125</td>
<td>.3116647</td>
<td>-.53</td>
<td>.53</td>
</tr>
<tr>
<td>gdppp</td>
<td>64</td>
<td>1285.569</td>
<td>241.3821</td>
<td>1121.631</td>
<td>1900</td>
</tr>
<tr>
<td>totaltradepp</td>
<td>64</td>
<td>.1900897</td>
<td>.0846175</td>
<td>.088873</td>
<td>.368898</td>
</tr>
<tr>
<td>infmortq</td>
<td>64</td>
<td>34.33394</td>
<td>9.464516</td>
<td>25.8</td>
<td>49.9</td>
</tr>
<tr>
<td>foodppp</td>
<td>64</td>
<td>.1495799</td>
<td>.0063382</td>
<td>.141371</td>
<td>.166358</td>
</tr>
<tr>
<td>unreq</td>
<td>64</td>
<td>.09375</td>
<td>.2937848</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>exerciseq</td>
<td>64</td>
<td>.546875</td>
<td>.5017331</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>usldrq</td>
<td>64</td>
<td>.00257</td>
<td>.243975</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>rokldrq</td>
<td>64</td>
<td>.046875</td>
<td>.213042</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>adminq</td>
<td>64</td>
<td>.390625</td>
<td>.4917474</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

Note: Cold War variable not included (does not vary)

Initial Regression Results – Model 2 (1996-2011)

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>Number of obs = 64</th>
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</thead>
<tbody>
<tr>
<td>Model</td>
<td>291162.794</td>
<td>10</td>
<td>29116.279</td>
<td>F(10, 53) = 1.81</td>
</tr>
<tr>
<td>Residual</td>
<td>812849.941</td>
<td>53</td>
<td>15693.195</td>
<td>Prob &gt; F = 0.0813</td>
</tr>
<tr>
<td>Adj R-squared</td>
<td>0.1140</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Root MSE</td>
<td>126.46</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| score             | Coef. | Std. Err. | t     | P>|t| | 95% Conf. Interval |
|-------------------|-------|-----------|-------|-------|-------------------|
| dprkcincq         | 67138.65 | 65823.09 | 1.02  | 0.311 | -64689.76 -199367.1 |
| wgiq              | 169.3154 | 154.279 | 1.10  | 0.277 | -340.0931 478.796 |
| gdppp             | 5948050 | .5919331 | 1.35  | 0.182 | 1.251791 64448 |
| totaltradepp      | -1102.239 | 688.0891 | -1.60  | 0.115 | -2482.317 277.8928 |
| infmortq          | 3.254282 | 9.228834 | 0.35  | 0.726 | -15.25637 21.76503 |
| foodppq           | -7922.799 | 8603.417 | -0.85  | 0.400 | -24549.07 9963.471 |
| exerciseq         | 20.10431 | 32.4233 | -0.62  | 0.538 | 85.15125 44.94664 |
| usldrq            | -18.78388 | 68.24299 | -0.28  | 0.784 | 153.664 218.0922 |
| rokldrq           | -33.18943 | 85.54751 | -0.39  | 0.696 | -120.237 136.9972 |
| adminq            | 17.78316 | 90.10906 | 0.17  | 0.867 | -142.9137 219.519 |
| _cons             | 275.4112 | 1391.879 | 0.20  | 0.844 | -2516.344 3067.166 |
Corrections for Time Series Effects

- All of the independent variables were lagged by one quarter. This is to ensure that the variables are examined temporally (IVARs precede DVAR) to correct for possible endogeneity (dependent variable causing changes in indep variables).
- Model explains 15% of the variance.
Tests for Specification Errors

• Transformed model is possibly misspecified (based on Ramsey RESET and link test), but all of the variables are required for the theory. And other variables are not available.

Corrections for Specification Errors

- Specification bias not present (should be > than .05)
  - 
  - Specification bias present (should be < .05 and _hatsq should be > .05)

POSSIBLE SPECIFICATION ERROR

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>Number of obs = 61</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>328922.091</td>
<td>2</td>
<td>164461.045</td>
<td>F(3, 60) = 11.19</td>
</tr>
<tr>
<td>Residual</td>
<td>796700.227</td>
<td>60</td>
<td>13278.3371</td>
<td>Prob &gt; F = 0.0000</td>
</tr>
<tr>
<td>Total</td>
<td>1125622.32</td>
<td>62</td>
<td>18155.1987</td>
<td></td>
</tr>
</tbody>
</table>

| score | Coef. | Std. Err. | t     | Pr(>|t|) | [95% Conf. Interval] |
|-------|-------|-----------|-------|---------|----------------------|
| _hat  | .712853 | .9652992 | 0.76  | 0.451   | -1.198033 to 2.663739 |
| _hatsq| .0005878 | .0020774 | 0.28  | 0.778   | -0.0035676 to 0.004433 |
| _cons | 26.96913 | 104.7685 | 0.26  | 0.798   | -182.199 to 236.5372 |

Model 2
Tests for Heteroscedasticity

- **Breusch-Pagan / Cook-Weisberg test for heteroskedasticity**
  - No: Constant variance
  - Variables: fitted values of score
  - chi2(1) = 9.06
  - Prob > chi2 = 0.0026

- **hettest**
  - Cameron & Trivedi's decomposition of LM-test

<table>
<thead>
<tr>
<th>Source</th>
<th>chi2</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heteroskedasticity</td>
<td>56.68</td>
<td>49</td>
<td>0.2104</td>
</tr>
<tr>
<td>Skewness</td>
<td>15.48</td>
<td>10</td>
<td>0.1210</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>9.48</td>
<td>1</td>
<td>0.4402</td>
</tr>
<tr>
<td>Total</td>
<td>72.64</td>
<td>60</td>
<td>0.1268</td>
</tr>
</tbody>
</table>

Indicates possible problems with heteroscedasticity

- **Remedy (if needed):**
  - Use Robust SE option or transform variables (log)
  - Robust Standard Errors Option used (see next page)

New Regression w/ Robust Standard Errors

- **Linear regression**
  - Number of obs = 61
  - F(10, 51) = 2.49
  - Prob > F = 0.0192
  - R-squared = 0.292
  - Root MSE = 23.39

| score          | Coef.   | Robust Std. Err. | t | P>|t| | [95% Conf. Interval] |
|----------------|---------|------------------|---|-----|---------------------|
| dprkcincq      | 55054.53| 6140.08          | 9.0| 0.374| -68169.81 178278.9 |
| wgq L1         | 244.3077| 171.49           | 1.4| 0.160| -99.72988 581.3453 |
| gdpp L1        | 2718677 | 203777           | 1.3| 0.188| -1370408 1607762 |
| totaltradepp L1| -669.8161| 773.1786        | -0.9| 0.390| -2221.332 881.6901 |
| infmorth L1    | 4.308633| 8.734167         | 0.4| 0.660| -1.342775 21.63502 |
| foodpp L1      | 2830.546| 8408.43         | -0.3| 0.738| -1970.29 14042.2 |
| L.exercise L1  | 244.2257| 31.57688        | 7.6| 0.989| -62.92249 63.8046 |
| L.usldq L1     | .7909954| 73.60461        | 0.0| 0.992| -146.9885 144.4065 |
| L.rokldq L1    | 97.33378| 124.3485        | 0.8| 0.437| -152.1898 346.8574 |
| L.addq L1      | 23.39095| 91.04451        | 0.2| 0.800| -100.5072 207.2051 |
| _cons          | -379.1858| 1550.573        | -0.2| 0.808| -3490.637 2732.266 |

Model 2

HETEROSCEDASTICY MIGHT BE PRESENT

NOTE: This is the NEW Model based on adding robust standard errors
Tests for Autocorrelation

<table>
<thead>
<tr>
<th>Tests for Autocorrelation</th>
</tr>
</thead>
</table>

Durbin-Watson d-statistic (11, 63) = 1.124503

BG LM indicates autocorrelation (P-values should be > .05 if there is no autocorrelation)

Durbin-Watson statistic (transformed) 1.756894
Durbin-Watson statistic (original) 1.124503

Model 2

Correcting for Autocorrelation #1

Cochrane-Orcutt AR(1) regression -- iterated estimates

Cochrane-Orcutt AR(1) with Robust Standard Error [vce(r)]

Model 2

Durbin-Watson statistic (original) 1.124503
Durbin-Watson statistic (transformed) 1.756894

AUTOCORRELATION NOW UNLIKELY
Tests for Multicollinearity

Correlations

Tests for Multicollinearity: Joint f test

This number should be <.05. If not, then you cannot reject the null that the coefficients are equal to zero (thus multicollinearity is possibly present)
## FINAL MODEL 2 – AR(1) Regression

Cochrane-Orcutt AR(1) regression -- iterated estimates

<table>
<thead>
<tr>
<th>Linear regression</th>
<th>Number of obs = 62</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F( 30,  51) = 5.45</td>
</tr>
<tr>
<td></td>
<td>Prob &gt; F = 0.0071</td>
</tr>
<tr>
<td></td>
<td>R-squared = 0.72923</td>
</tr>
<tr>
<td></td>
<td>Root MSE = 188.88</td>
</tr>
</tbody>
</table>

| score               | Coef.  | Std. Err. | t     | P>|t|  | [95% Conf. Interval] |
|---------------------|--------|-----------|-------|------|----------------------|
| dpdkincq Li.        | 77387.74 | 80520.1   | 0.96  | 0.342| -84423.11 to 238888.6 |
| woq Li.             | 161.1741 | 277.9712  | 0.58  | 0.165| -306.8764 to 719.2246 |
| gdp Li.             | 0.1348404 | 0.1397684 | 0.42  | 0.675| -1.20712 to 1.770034 |
| totaltrade Li.      | -102.0826 | 1056.131 | -0.18 | 0.836| -2922.777 to 1618.272 |
| inflow Li.          | 7.708937  | 11.94308  | 0.65  | 0.522| -16.26779 to 31.68566 |
| foodg Li.           | -11065.66 | 12884.88  | -0.86 | 0.394| -36903.13 to 14801.81 |
| L.exercise 2        | 21.24844 | 21.91039  | 1.06  | 0.295| -20.81881 to 67.31589 |
| L.usero 2           | -5.589573 | 58.80727  | -0.10 | 0.925| -123.6592 to 112.4799 |
| L.rokler 2          | 98.92562  | 70.27786  | 1.41  | 0.165| -42.16307 to 230.0143 |
| L.indext 2          | -14.34915 | 118.7285  | -0.12 | 0.904| -252.7606 to 224.0083 |
| _cons               | 597.9962  | 2468.224  | 0.24  | 0.810| -4357.17 to 5553.162 |
| rho                 | 0.447091  |           |       |      |                      |

Model 2

Durbin-Watson statistic (original) 1.234583
Durbin-Watson statistic (transformed) 1.766894

---

**Model 3**

Model 1 plus UN
(limited to Post-Cold War, 1992-2011)
Data Summary – Model 3 (1992-2011)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>score</td>
<td>80</td>
<td>188.987</td>
<td>126.9096</td>
<td>18</td>
<td>631</td>
</tr>
<tr>
<td>dprkcincq</td>
<td>80</td>
<td>0.0115473</td>
<td>0.001444</td>
<td>0.009815</td>
<td>0.013581</td>
</tr>
<tr>
<td>gdppp</td>
<td>80</td>
<td>1477.742</td>
<td>481.7395</td>
<td>1121.631</td>
<td>2775.22</td>
</tr>
<tr>
<td>totaltradepp</td>
<td>80</td>
<td>0.1711398</td>
<td>0.082926</td>
<td>0.088871</td>
<td>0.368989</td>
</tr>
<tr>
<td>infmortq</td>
<td>80</td>
<td>34.3</td>
<td>8.858219</td>
<td>25.35</td>
<td>49.9</td>
</tr>
<tr>
<td>foodppq</td>
<td>80</td>
<td>0.152287</td>
<td>0.0080721</td>
<td>0.141371</td>
<td>0.16812</td>
</tr>
<tr>
<td>unresq</td>
<td>80</td>
<td>0.1</td>
<td>0.3018928</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>exerciseq</td>
<td>80</td>
<td>0.55</td>
<td>0.3006325</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>usldrq</td>
<td>80</td>
<td>0.0625</td>
<td>0.2435887</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>rokldrq</td>
<td>80</td>
<td>0.05</td>
<td>0.21932</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>adminq</td>
<td>80</td>
<td>0.5125</td>
<td>0.5029973</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

Note: Cold War variable not included (does not vary)

Initial Regression Results – Model 3 (1992-2011)

. xi: reg score dprkcincq gdppp totaltradepp infmortq foodppq i.unresq i.exerciseq i.usldrq i.rokldrq i.adminq

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>Number of obs = 80</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>300266.136</td>
<td>10</td>
<td>30026.6136</td>
<td>F( 10, 69) = 5.23</td>
</tr>
<tr>
<td>Residual</td>
<td>972110.851</td>
<td>69</td>
<td>13888.7631</td>
<td>R-squared = 0.346</td>
</tr>
<tr>
<td>Total</td>
<td>1272376.99</td>
<td>79</td>
<td>16106.0378</td>
<td>Adj R-squared = 0.325</td>
</tr>
</tbody>
</table>

| score  | Coef. | Std. Err. | t     | P>|t| [95% Conf. Interval] |
|--------|-------|-----------|-------|---|----------------------|
| dprkcincq | -37.1225 | 42913.09 | -0.09 | 0.941 | -89.3125 | 18.0897 |
| gdppp   | -0.724278 | 5541728 | -1.34 | 0.386 | -38.04996 | 0.035644 |
| totaltradepp | -472.988 | 523.3958 | -0.90 | 0.370 | -1716.334 | 751.9578 |
| infmortq | -0.0447287 | 0.068888 | -0.67 | 0.507 | -0.22219 | 0.122738 |
| foodppq  | -723.9898 | 4866.737 | -1.49 | 0.141 | -1306.77 | 2452.975 |
| i.unresq.1 | 71.83795 | 48.25024 | 1.48 | 0.144 | -24.93764 | 167.5395 |
| i.exerciseq.1 | -20.80275 | 26.9933 | -0.77 | 0.444 | -74.68291 | 33.04761 |
| i.usldrq.1 | -28.66455 | 56.93308 | -0.50 | 0.616 | -242.2909 | 84.92185 |
| i.rokldrq.1 | -42.31163 | 69.24778 | -0.61 | 0.543 | -180.4572 | 95.83392 |
| i.adminq.1 | 114.2387 | 68.20319 | 1.67 | 0.098 | -21.82297 | 250.3003 |
| _cons    | 1615.509 | 754.4022 | 2.19 | 0.031 | 150.437 | 3080.602 |
Corrections for Time Series Effects

- All of the independent variables were lagged by one quarter. This is to ensure that the variables are examined temporarily (IVARs precede DVAR) and to correct for possible endogeneity (dependent variable causing changes in independent variables).

- Results indicate no relationships and model explains 16% of the variance.

Model 3
Tests for Specification Errors

```
. ovtest
Ramsey RESET test using powers of the fitted values of score
Ho: model has no omitted variables
(3, 65) = 3.73
Prob > F = 0.0516
```

- Specification bias not present (should be > than .05)
- _hat should be <.05 and _hatsq should be >.05 (specification bias present)

Corrections for Specification Errors

- Transformed model is possibly misspecified (based on the Ramsey Reset test), but all of the variables are required for the theory. And other variables are not available.
- This is an acknowledged characteristic of the data.
Tests for Heteroscedasticity

```
. htest
Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
Ho: Constant variance
Variables: fitted values of score
ch2(1) = 15.22
Prob > ch2 = 0.0001
. ltest
Cameron & Trivedi's decomposition of LM-test

<table>
<thead>
<tr>
<th>Source</th>
<th>ch2</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heteroskedasticity</td>
<td>47.79</td>
<td>50</td>
<td>0.0001</td>
</tr>
<tr>
<td>Skewness</td>
<td>17.99</td>
<td>10</td>
<td>0.0433</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>0.88</td>
<td>1</td>
<td>0.3469</td>
</tr>
<tr>
<td>Total</td>
<td>66.67</td>
<td>61</td>
<td>0.2885</td>
</tr>
</tbody>
</table>
```

These numbers should both be >.10
Indicates possible problems with heteroscedasticity
Remedy (if needed): Use Robust SE option or transform variables (log)
Robust Standard Errors Option used (see next page)

New Regression w/ Robust Standard Errors

```
Linear regression
Number of obs = 79
R2 (0.68) = 2.25
Prob > F = 0.0005
R-squared = 0.2747
Root MSE = 3.18

| score          | Coef. | Robust Std. Err. | t     | P>|t| | [95% Conf. Interval] |
|----------------|-------|------------------|-------|-----|-----------------------|
| dpkincseq      | -9366.563 | 29407.09       | -0.32 | 0.753 | -67988.69 to 43875.56 |
| gdpw          | 0.012461 | 0.047484       | -2.60 | 0.013 | -0.1137 to 0.242496  |
| totaltradeq    | -31.40237 | 550.1095      | -0.06 | 0.955 | -129.129 to 1866.324 |
| infwinq        | -4.37016 | 4.016659       | -1.09 | 0.280 | -12.38528 to 3.644959 |
| foodpowerq     | -4254.885 | 4149.248       | -1.03 | 0.309 | -12534.58 to 4024.811 |
| L.unregq       | -13.36988 | 37.85278      | -0.35 | 0.725 | -88.90393 to 62.26416 |
| L.exerciseq    | -10.4923 | 25.69          | -0.41 | 0.684 | -61.7559 to 40.7713  |
| L.usldq        | 1.64689 | 52.44277       | 0.03  | 0.975 | -103 to 106.2938
| L.roldq        | 106.1182 | 80.51597     | 1.00  | 0.285 | -90.45932 to 382.6958 |
| L.adeq         | 81.36383 | 66.4776        | 1.22  | 0.225 | -51.29016 to 234.0178 |
| _cons          | 1143.345 | 770.4729      | 1.48  | 0.142 | -394.1095 to 2680.8   |
```

Model is statistically significant
The Model explains 27% of the variation
Significant variables – None

Model 3
NOTE: This is the NEW Model based on adding robust standard errors

HETEROSCEDASTICITY MIGHT BE PRESENT
Tests for Autocorrelation

```
. estat dwatson
        Durbin-Watson d-statistic (11, 79) = 1.244623
. estat bgodfrey, lags (1 2 1)
        Breusch-Godfrey LM test for autocorrelation
        |   ch2   df   Prob > ch2 |
        +-----------------------|
        1          11.586   1   0.0007500  |
        2          11.570   2   0.0007500  |
        +-----------------------|
HM: no serial correlation
```

This number falls within the rejection region indicating possible autocorrelation.

BG LM indicates autocorrelation (P-values should be > .05 if there is no autocorrelation).

Gujarati and Porter (2009, 889) Rejection Zones:
k=11 n=79
Rejection zone 1.205 to 1.810

Model 3 AUTOCORRELATION PROBABLY PRESENT

Correcting for Autocorrelation

```
Cochrane-Orcutt AR(1) regression -- iterated estimates

Linear regression                                  Number of obs = 78
R-squared = 0.14
Root MSE = 1.979

```

| score   | Coef. | Standard Error | t     | P>|t| | [95% Conf. Interval] |
|---------|-------|----------------|-------|------|---------------------|
|          |       |                |       |      |                     |
| dpbrineq | 3736.401 | 4333.83    | 0.09  | 0.928 | -78762.29 - 86235.09 |
| gdpdep  | -0.0527  | 0.022981  | -0.86 | 0.393 | -0.179013 - 0.06515 |
| totaltradepp | 116.7253  | 703.9506  | 0.17  | 0.869 | -128.8366 1521.816 |
| infmotez | -2.374974 | 5.832422  | -0.41 | 0.685 | -14.01654 9.26659 |
| foodpex | -3537.73  | 5751.358  | -0.62 | 0.541 | -15017.49 7942.028 |
| l.unreq  | -16.00958 | 29.87347  | -0.54 | 0.594 | -75.63278 43.16182 |
| l.exercleq | 10.60475  | 20.5928   | 0.51  | 0.608 | -30.49865 51.70814 |
| l.usdlerq | 3.086805  | 50.64341  | 0.06  | 0.952 | -97.99787 104.1715 |
| l.roklerq | 107.4748  | 61.38065  | 1.75  | 0.084 | -14.88376 229.8335 |
| l.admleq | 46.22309  | 81.23314  | 0.57  | 0.571 | -135.9189 208.3651 |
| _cons   | 787.4787  | 1037.268  | 0.76  | 0.460 | -1282.9156 2857.873 |

OLS Significant variables (Robust SE) - None

AR(1) Significant variables (Robust SE) - ROK Leadership change (.10 level)

Cochrane-Orcutt AR(1) with Robust Standard Error [vce(r)]

Model 3 AUTOCORRELATION NOW UNLIKELY

Durbin-Watson statistic (original) 1.244623
Durbin-Watson statistic (transformed) 1.882319
Tests for Multicollinearity

Correlations

Tests for Multicollinearity: Joint f test

This number should be <.05. If not, then you cannot reject the null that the coefficients are equal to zero (thus multicollinearity is possibly present)
**FINAL Model 3 – AR(1) Regression**

Model 3

| Coef. | Std. Err. | t | P>|t| | [95% Conf. Interval] |
|-------|-----------|---|-----|-------------------|
| dprkcincq | 3736.401 | 41331.83 | 0.09 | 0.928 | -78762.29 | 86235.09 |
| gdpq | -0.6527 | 0.652981 | -0.96 | 0.339 | -1.739534 | 0.434034 |
| totaltradepp | 116.7235 | 793.9506 | 0.17 | 0.869 | -1288.366 | 1321.816 |
| infmrtq | -3.734974 | 5.832422 | -0.41 | 0.685 | -12.513154 | 5.043744 |
| foodppq | -3537.73 | 5751.358 | -0.62 | 0.531 | -15037.14 | 7962.682 |
| L.unresq | -16.00958 | 29.87347 | -0.54 | 0.584 | -75.63728 | 43.61832 |
| L.exerciseq | 20.60475 | 20.5928 | 0.51 | 0.608 | -30.49865 | 71.70814 |
| L.usldrq | 3.086805 | 50.64341 | 0.06 | 0.952 | -97.99787 | 104.1715 |
| L.rokldrq | 107.4748 | 61.30565 | 1.75 | 0.084 | -14.83767 | 220.8335 |
| L.sldinq | 46.22309 | 81.23334 | 0.57 | 0.571 | -115.91289 | 208.3631 |
| _cons | 737.4787 | 1037.268 | 0.76 | 0.450 | -1282.915 | 2587.873 |

Model 4

Model 1 plus Refugees (limited to Post-Cold War, 1992-2011)
Data Summary – Model 4 (1992-2011)

Note: Cold War variable not included (does not vary)

Initial Regression Results – Model 4 (1992-2011)
Correcting for Time Series - Lagging

All of the independent variables were lagged by one quarter. This is to ensure that the variables are examined temporally (IVARs precede DVAR) and to correct for possible endogeneity (dependent variable causing changes in independent variables). Results indicate no statistically significant relationships and model explains 22% of the variance.
Tests for Specification Errors

Model 4

POSSIBLE SPECIFICATION ERROR

 Corrections for Specification Errors

- Transformed model is possibly misspecified (based on the link test), but all of the variables are required for the theory. Other variables are not available.
- This is an acknowledged characteristic of the data.
Tests for Heteroscedasticity

<table>
<thead>
<tr>
<th>Source</th>
<th>ch12</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heteroscedasticity</td>
<td>52.43</td>
<td>51</td>
<td>0.4184</td>
</tr>
<tr>
<td>Skewness</td>
<td>11.14</td>
<td>10</td>
<td>0.1948</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>1.54</td>
<td>1</td>
<td>0.2145</td>
</tr>
<tr>
<td>Total</td>
<td>67.51</td>
<td>62</td>
<td>0.2944</td>
</tr>
</tbody>
</table>

Significant variables – Refugees (.05 level)

Remedy (if needed): Use Robust SE option or transform variables (log)

New Regression w/ Robust Standard Errors

| Score          | Coef. | Std. Err. | t     | P>|t| | [95% Conf. Interval] |
|----------------|-------|-----------|-------|-----|----------------------|
| dprkcincq      | -15538.9 | 27478.78 | -0.57 | 0.571 | -70471.96 | 39194.16 |
| gdppp         | 0.182666 | 0.543171 | 0.34  | 0.738 | -0.991724 | 0.326647 |
| totaltrade     | -1066.319 | 678.3717 | -1.57 | 0.121 | -2419.899 | 287.3503 |
| refugees       | 3006.791 | 1245.069 | 2.42  | 0.013 | 719.3415 | 5289.24 |
| inflq         | 9.30735 | 4.691946 | 2.00  | 0.043 | -8.431897 | 18.23937 |
| foodpp        | -888.59 | 3989.855 | -0.23 | 0.819 | -13800.22 | 3221.642 |
| l.exercise     | -0.756687 | 34.94694 | -0.03 | 0.977 | -59.59945 | 58.03274 |
| l.walking      | 26.0627  | 58.19754 | 0.45  | 0.656 | -90.06668 | 142.1941 |
| l.ropping      | 94.71364 | 99.67801 | 0.95  | 0.345 | -104.1748 | 293.6376 |
| l.adm         | 84.81706 | 65.87777 | 1.31  | 0.184 | -58.15751 | 227.7828 |
| .cons         | 988.6558 | 731.9964 | 1.34  | 0.249 | -552.0333 | 2329.295 |

Model 4

NOTE: This is the NEW Model based on adding robust standard errors
Tests for Autocorrelation

This number falls within the rejection region indicating possible autocorrelation.

BG LM indicates autocorrelation (P-values should be > .05 if there is no autocorrelation).

Gujarati and Porter (2009, 889) Rejection Zones:
k=11 n=79
Rejection zone 1.205 to 1.810

Correcting for Autocorrelation

OLS
Significant variables
(AR1) (Robust SE)
Refugees (.05)

AR1
Significant variables
(Robust SE)
Refugees (.10 level)

Cochrane-Orcutt
AR1 with
Robust Standard
Error
[vce(r)]

Model 4
AUTOCORRELATION PROBABLY PRESENT

Model 4
AUTOCORRELATION NOW UNLIKELY

D.9.157885
Durbin-Watson statistic (transformed) 1.872192
Durbin-Watson statistic (original) 1.357885

307
Tests for Multicollinearity

Correlations

Test for Multicollinearity: Joint f test

. test l.dprkcincq l.totaltradepp l.refugeesq l.infmortq
(1) l.dprkcincq = 0
(2) l.totaltradepp = 0
(3) l.refugeesq = 0
(4) l.infmortq = 0

F(  4,    68) = 1.90
Prob > F = 0.1199

This number should be <.05. If not, then you cannot reject the null that the coefficients are equal to zero (thus multicollinearity is possibly present)
**FINAL Model 4 – AR(1) Regression**

<table>
<thead>
<tr>
<th>Model 4</th>
<th>Durbin-Watson statistic (original)</th>
<th>1.157885</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Durbin-Watson statistic (transformed)</td>
<td>1.072192</td>
</tr>
</tbody>
</table>

**Linear Regression**

| score | Coef. | Std. Err. | t | P>|t| | 95% Conf. Interval |
|-------|-------|-----------|---|-----|-------------------|
| dpdkincq | -3189.311 | 37427.85 | -0.09 | 0.932 | [-77875.65, 7497.03] |
| gdpdep | 0.0102596 | 0.0734668 | 0.14 | 0.896 | [-1.323886, 1.342079] |
| totaltrade | -828.2668 | 847.7516 | -0.98 | 0.342 | [-2520.386, 863.8524] |
| Refugees | 2868.563 | 1633.79 | 1.76 | 0.084 | [-392.4949, 6129.621] |
| Infmrtq | 2.750085 | 6.745713 | 0.41 | 0.684 | [-10.78845, 16.22058] |
| fooddep | -2949.348 | 5301.901 | -0.56 | 0.580 | [-13531.99, 7633.291] |
| L.exercise | 11.43319 | 26.39024 | 0.56 | 0.575 | [-29.06591, 51.93269] |
| L.usaldr | 16.76734 | 53.91637 | 0.31 | 0.757 | [-90.85019, 124.3849] |
| L.rokldr | 100.9797 | 65.67377 | 1.54 | 0.129 | [-30.18573, 232.0651] |
| L.admnr | 12.4943 | 77.06109 | 0.18 | 0.819 | [-101.3203, 206.3089] |
| cons | 540.1039 | 980.192 | 0.55 | 0.583 | [-1416.376, 2496.584] |
| rho | 0.354979 | 0.124366 | 2.86 | 0.004 | [0.099132, 0.610824] |

**Model 4 is statistically significant**

**The Model explains 22% of the variation**

**Cochrane-Orcutt AR(1) with Robust Standard Error**
[Robust SE]--

**Significant variables**

- Refugees (.10 level)
Appendix E - Substantive Effects

Figure E.1  Substantive Effects (All Models)

<table>
<thead>
<tr>
<th>Model 1 (Base, 1960-2011)</th>
<th>Standard Deviation (SD)</th>
<th>2* SD</th>
<th>Coefficient</th>
<th>2*SD x Coefficient</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>DPRK CINC(t-1)***</td>
<td>0.008994</td>
<td>0.017988</td>
<td>-55154.67</td>
<td>-992.122204</td>
<td>A one unit <strong>increase</strong> in CINC equals a <strong>992 unit decrease</strong> in hostility score</td>
</tr>
<tr>
<td>WGI(t-1)</td>
<td>-0.0803125</td>
<td>-0.160625</td>
<td>-</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>GDP(t-1)</td>
<td>1987.762</td>
<td>3975.524</td>
<td>-0.0917953</td>
<td>-364.9344182</td>
<td>A one unit <strong>increase</strong> in GDP equals a <strong>364 unit decrease</strong> in hostility score</td>
</tr>
<tr>
<td>Trade(t-1)</td>
<td>0.1148044</td>
<td>0.2296088</td>
<td>-43.57502</td>
<td>-10.00520805</td>
<td>A one unit <strong>increase</strong> in Trade equals a <strong>10 unit decrease</strong> in hostility score</td>
</tr>
<tr>
<td>Refugees(t-1)</td>
<td>0.0449841</td>
<td>0.0899682</td>
<td>-</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>Infant Mortality(t-1)</td>
<td>38.65601</td>
<td>77.31202</td>
<td>-7.236242</td>
<td>-559.4484862</td>
<td>A one unit <strong>increase</strong> in Infant Mortality equals a <strong>559 unit decrease</strong> in hostility score</td>
</tr>
<tr>
<td>Food(t-1)*</td>
<td>0.154359</td>
<td>0.308718</td>
<td>-3634.759</td>
<td>-1122.115529</td>
<td>A one unit <strong>increase</strong> in Food equals a <strong>1122 unit decrease</strong> in hostility score</td>
</tr>
<tr>
<td>UN Resolutions(t-1)</td>
<td>0.1</td>
<td>0.2</td>
<td>-</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>Military Exercises(t-1)</td>
<td>0.091346</td>
<td>0.182692</td>
<td>-18.91945</td>
<td>-3.456432159</td>
<td>A one unit <strong>increase</strong> in Military Exercises equals a <strong>3 unit decrease</strong> in hostility score</td>
</tr>
<tr>
<td>ROK Leadership Change(t-1)*</td>
<td>0.913462</td>
<td>1.826924</td>
<td>93.37184</td>
<td>170.5832554</td>
<td>A one unit <strong>increase</strong> in ROK Leadership Change equals a <strong>170 unit increase</strong> in hostility score</td>
</tr>
<tr>
<td>US Leadership Change(t-1)</td>
<td>0.072115</td>
<td>0.14423</td>
<td>-29.74627</td>
<td>-4.290304522</td>
<td>A one unit increase in US Leadership Change equals a <strong>4 unit decrease</strong> in hostility score</td>
</tr>
<tr>
<td>Variable</td>
<td>Standard Deviation (SD)</td>
<td>2* SD</td>
<td>Coefficient (from above)</td>
<td>2*SD x Coefficient</td>
<td>Interpretation</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>-------------------------</td>
<td>---------</td>
<td>--------------------------</td>
<td>--------------------</td>
<td>----------------------------------------------------</td>
</tr>
<tr>
<td>ROK Admin(t-1)**</td>
<td></td>
<td></td>
<td>0.7788462</td>
<td>1.5576924</td>
<td>110.6997</td>
</tr>
<tr>
<td>Cold War(t-1)**</td>
<td></td>
<td></td>
<td>0.6153846</td>
<td>1.2307692</td>
<td>-179.9121</td>
</tr>
<tr>
<td>DPRK CINC(t-1)</td>
<td>0.008994</td>
<td>0.017988</td>
<td>77237.74</td>
<td>1389.352467</td>
<td>A one unit increase in CINC equals a 1389 unit increase in hostility score</td>
</tr>
<tr>
<td>WGI(t-1)</td>
<td>-0.0803125</td>
<td>-0.160625</td>
<td>161.1741</td>
<td>-25.88858981</td>
<td>A one unit increase in WGI equals a 25 unit decrease in hostility score</td>
</tr>
<tr>
<td>GDP(t-1)</td>
<td>1987.762</td>
<td>3975.524</td>
<td>0.1348404</td>
<td>536.0612464</td>
<td>A one unit increase in GDP equals a 536 unit increase in hostility score</td>
</tr>
<tr>
<td>Trade(t-1)</td>
<td>0.1148044</td>
<td>0.2296088</td>
<td>-502.8026</td>
<td>-115.4479016</td>
<td>A one unit increase in Trade equals a 115 unit decrease in hostility score</td>
</tr>
<tr>
<td>Refugees(t-1)</td>
<td>0.0449841</td>
<td>0.0899682</td>
<td>-</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>Infant Mortality(t-1)</td>
<td>38.65601</td>
<td>77.31202</td>
<td>7.708937</td>
<td>595.9934915</td>
<td>A one unit increase in Infant Mortality equals a 559 unit increase in hostility score</td>
</tr>
<tr>
<td>Food(t-1)</td>
<td>0.154359</td>
<td>0.308718</td>
<td>-11065.66</td>
<td>-3416.168424</td>
<td>A one unit increase in Food equals a 3416 unit decrease in hostility score</td>
</tr>
<tr>
<td>UN Resolutions(t-1)</td>
<td>0.1</td>
<td>0.2</td>
<td>-</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>Military Exercises(t-1)</td>
<td>0.091346</td>
<td>0.182692</td>
<td>23.24864</td>
<td>4.247340539</td>
<td>A one unit increase in Military Exercises equals a 4 unit increase in hostility score</td>
</tr>
<tr>
<td>ROK Leadership Change(t-1)</td>
<td>0.913462</td>
<td>1.826924</td>
<td>98.92562</td>
<td>180.7295894</td>
<td>A one unit increase in ROK Leadership Change equals a 180 unit increase in hostility score</td>
</tr>
<tr>
<td>US Leadership Change(t-1)</td>
<td>0.072115</td>
<td>0.14423</td>
<td>-5.589573</td>
<td>-0.806184114</td>
<td>A one unit increase in US Leadership Change equals a 0.8 unit decrease in hostility score</td>
</tr>
<tr>
<td>Variable</td>
<td>Standard Deviation (SD)</td>
<td>2* SD</td>
<td>Coefficient (from above)</td>
<td>2*SD x Coefficient</td>
<td>Interpretation</td>
</tr>
<tr>
<td>---------------------------</td>
<td>-------------------------</td>
<td>-------</td>
<td>--------------------------</td>
<td>---------------------</td>
<td>-------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>ROK Admin(t-1)</td>
<td>0.7788462</td>
<td>1.5576924</td>
<td>-14.34915</td>
<td>-22.3515619</td>
<td>A one unit increase in ROK Admin equals a 22 unit decrease in hostility score</td>
</tr>
<tr>
<td>Cold War(t-1)</td>
<td>0.6153846</td>
<td>1.2307692</td>
<td>-</td>
<td>n/a</td>
<td></td>
</tr>
</tbody>
</table>

**Model 3 (Base + UN Resolutions, 1992-2011)**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Standard Deviation (SD)</th>
<th>2* SD</th>
<th>Coefficient (from above)</th>
<th>2*SD x Coefficient</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>DPRK CINC(t-1)</td>
<td>0.008994</td>
<td>0.017988</td>
<td>3736.401</td>
<td>67.21038119</td>
<td>A one unit increase in CINC equals a 67 unit increase in hostility score</td>
</tr>
<tr>
<td>WGI(t-1)</td>
<td>-0.0803125</td>
<td>-0.160625</td>
<td>-</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>GDP(t-1)</td>
<td>1987.762</td>
<td>3975.524</td>
<td>-0.0527</td>
<td>-209.5101148</td>
<td>A one unit increase in GDP equals a 209 unit decrease in hostility score</td>
</tr>
<tr>
<td>Trade(t-1)</td>
<td>0.1148044</td>
<td>0.2296088</td>
<td>116.7253</td>
<td>26.80115606</td>
<td>A one unit increase in Trade equals a 26 unit increase in hostility score</td>
</tr>
<tr>
<td>Refugees(t-1)</td>
<td>0.0449841</td>
<td>0.0899682</td>
<td>-</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>Infant Mortality(t-1)</td>
<td>38.65601</td>
<td>77.31202</td>
<td>-2.374974</td>
<td>-183.6140374</td>
<td>A one unit increase in Infant Mortality equals a 183 unit decrease in hostility score</td>
</tr>
<tr>
<td>Food(t-1)</td>
<td>0.154359</td>
<td>0.308718</td>
<td>-3537.73</td>
<td>-1092.16093</td>
<td>A one unit increase in Food equals a 1092 unit decrease in hostility score</td>
</tr>
<tr>
<td>UN Resolutions(t-1)</td>
<td>0.1</td>
<td>0.2</td>
<td>-16.00958</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>Military Exercises(t-1)</td>
<td>0.091346</td>
<td>0.182692</td>
<td>10.60475</td>
<td>1.937402987</td>
<td>A one unit increase in Military Exercises equals a 1.9 unit increase in hostility score</td>
</tr>
<tr>
<td>ROK Leadership Change (t-1)*</td>
<td>0.913462</td>
<td>1.826924</td>
<td>107.4748</td>
<td>196.3482915</td>
<td>A one unit increase in ROK Leadership Change equals a 196 unit increase in hostility score</td>
</tr>
<tr>
<td>US Leadership Change(t-1)</td>
<td>0.072115</td>
<td>0.14423</td>
<td>3.086805</td>
<td>0.445209885</td>
<td>A one unit increase in US Leadership Change equals a 0.4 unit increase in hostility score</td>
</tr>
<tr>
<td>ROK Admin(t-1)</td>
<td>0.7788462</td>
<td>1.5576924</td>
<td>46.22309</td>
<td>72.001356</td>
<td>A one unit increase in ROK Admin equals a 72 unit increase in hostility score</td>
</tr>
</tbody>
</table>
### Model 4 (Base + Refugees, 1992-2011)

<table>
<thead>
<tr>
<th></th>
<th>Standard Deviation (SD)</th>
<th>2* SD</th>
<th>Coefficient (from above)</th>
<th>2*SD x Coefficient</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DPRK CINC(t-1)</strong></td>
<td>0.008994</td>
<td>0.017988</td>
<td>-3189.311</td>
<td>-57.36932627</td>
<td>A one unit <strong>increase</strong> in CINC equals a 57 unit <strong>decrease</strong> in hostility score</td>
</tr>
<tr>
<td><strong>WGI(t-1)</strong></td>
<td>-0.0803125</td>
<td>-0.160625</td>
<td>-</td>
<td>n/a</td>
<td><strong>A one unit decrease</strong> in WGI equals a <strong>increase</strong> in hostility score</td>
</tr>
<tr>
<td><strong>GDP(t-1)</strong></td>
<td>1987.762</td>
<td>3975.524</td>
<td>0.0102596</td>
<td>40.78728603</td>
<td>A one unit <strong>increase</strong> in GDP equals a 40 unit <strong>increase</strong> in hostility score</td>
</tr>
<tr>
<td><strong>Trade(t-1)</strong></td>
<td>0.1148044</td>
<td>0.2296088</td>
<td>-828.2668</td>
<td>-190.177346</td>
<td>A one unit <strong>increase</strong> in Trade equals a 190 unit <strong>decrease</strong> in hostility score</td>
</tr>
<tr>
<td><strong>Refugees(t-1)</strong></td>
<td>0.0449841</td>
<td>0.0899682</td>
<td>2868.563</td>
<td>258.0794497</td>
<td><strong>A one unit increase</strong> in Refugees equals a 258 unit <strong>decrease</strong> in hostility score</td>
</tr>
<tr>
<td><strong>Infant Mortality(t-1)</strong></td>
<td>38.65601</td>
<td>77.31202</td>
<td>2.756085</td>
<td>213.0784986</td>
<td>A one unit <strong>increase</strong> in Infant Mortality equals a 213 unit <strong>increase</strong> in hostility score</td>
</tr>
<tr>
<td><strong>Food(t-1)</strong></td>
<td>0.154359</td>
<td>0.308718</td>
<td>-2949.348</td>
<td>-910.5168159</td>
<td>A one unit <strong>increase</strong> in Food equals a 910 unit <strong>decrease</strong> in hostility score</td>
</tr>
<tr>
<td><strong>UN Resolutions(t-1)</strong></td>
<td>0.1</td>
<td>0.2</td>
<td>-</td>
<td>n/a</td>
<td><strong>A one unit increase</strong> in UN Resolutions equals a 2 unit <strong>increase</strong> in hostility score</td>
</tr>
<tr>
<td><strong>Military Exercises(t-1)</strong></td>
<td>0.091346</td>
<td>0.182692</td>
<td>11.43339</td>
<td>2.088788886</td>
<td>A one unit <strong>increase</strong> in Military Exercises equals a 2 unit <strong>increase</strong> in hostility score</td>
</tr>
<tr>
<td><strong>ROK Leadership Change(t-1)</strong></td>
<td>0.913462</td>
<td>1.826924</td>
<td>100.9797</td>
<td>184.4822374</td>
<td>A one unit <strong>increase</strong> in ROK Leadership Change equals a 184 unit <strong>increase</strong> in hostility score</td>
</tr>
<tr>
<td><strong>US Leadership Change(t-1)</strong></td>
<td>0.072115</td>
<td>0.14423</td>
<td>16.76734</td>
<td>2.418353448</td>
<td>A one unit increase in US Leadership Change equals a 2.4 unit <strong>increase</strong> in hostility score</td>
</tr>
<tr>
<td><strong>ROK Admin(t-1)</strong></td>
<td>0.7788462</td>
<td>1.5576924</td>
<td>52.4943</td>
<td>81.76997215</td>
<td>A one unit <strong>increase</strong> in ROK Admin equals a 81 unit <strong>increase</strong> in hostility score</td>
</tr>
<tr>
<td><strong>Cold War(t-1)</strong></td>
<td>0.6153846</td>
<td>1.2307692</td>
<td>-</td>
<td>n/a</td>
<td><strong>A one unit decrease</strong> in Cold War equals a <strong>increase</strong> in hostility score</td>
</tr>
</tbody>
</table>

Asterisks (*) indicate significance levels (* = p< 0.10; ** = p < 0.05; *** = p < 0.01)
Appendix F - Map of the Yellow Sea

Figure F.1 Map of the Yellow Sea

CIA 2005; ROK Ministry of Defense 2007