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North Korean Military Behaviour: From Conventional to Nuclear Brinkmanship

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Abstract

North Korea as a nuclear weapons state has become an increasing threat to the region and the United States. This became explicitly clear in 2017 when North Korea claimed to have completed its nuclear deterrent that includes the nascent ability to hold U.S. cities at risk. North Korea has also been known to lead an aggressive military behaviour towards South Korea and the U.S. for a long time. With nuclear capabilities still in the formative stages, questions about how this affects North Korean military behaviour arise. Previous literature on how nuclear weapons affect state behaviour has given great attention to changes in military behaviour after nuclear acquisition, but there is a deficit in explanations on the gradual change in specifically conventional aggression in progressive stages of nuclear weapons development.

To weigh in on this debate, the thesis empirically investigates the North Korean conventional military aggression in four progressive steps of its nuclear weapons development. By using process tracing to investigate all North Korean provocations from 1958 to 2020 under a selection of cases that mirror the nuclear weapons development, the thesis will uncover variation in conventional military behaviour along the line of the development. Investigating conventional aggression in relation to nuclear weapons development is especially interesting in a time where the distinction between conventional and nuclear capabilities are eroding.

Despite assumptions that nuclear weapons states might become conventionally more aggressive after nuclear weapons acquisition, the findings indicate that conventional aggression decreases while nuclear weapons development goes on. The thesis finds that the overall trend is that North Korean aggression does not increase. Instead, conventional aggression seems to have decreased to the benefit of increased strategic aggression through nuclear and missile provocations.

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Table of Content:

List of Figures:

List of Tables:

List of Models:

Attachment:

Excel file containing a dataset on all North Korean provocations can be provided upon request.

1.0 Introduction

North Korea as a nuclear weapons state has emerged in the past decade as one of the most decisive security issues for both the United States and its allies in Asia. There have been great disagreements between interested parties over North Korea`s intentions and what kind of strategy the U.S. should employ to deal with this issue (Cha and Kang, 2018, p. 1; Narang and Panda, 2020, p. 47). Nuclear weapons acquisition is also expected to affect the state itself (Jervis, 1984). Discussions about how nuclear weapons can facilitate aggression, embolden the states, and increase conventional aggression, are some of the most important and disputed behavioural outcomes following a nuclear acquisition by new states. The North Korean nuclear capabilities are still in the formative stages, and with the nascent ability to hold U.S. cities at risk as of 2017 (Narang and Panda, 2020), a key question is how the nuclear weapons development can influence North Korea`s conventional military aggression in the region.

Scholars have drawn lines between the Indo-Pakistani conflict and North Korea in attempts to predict the future behaviour of North Korea as a nuclear weapons state. Discussions on the strategic stability on the Korean peninsula and the nuclear deterrence dynamics between North Korea and the U.S. has also been given renewed attention (Panda, 2020; Roehrig, 2016). The Cold War concept "The stability-instability paradox" has been frequently used to explain the Indo-Pakistani case and how nuclear weapons have facilitated the possibility of engaging in lower levels of violence under the nuclear threshold (Watterson, 2017; Kapur, 2005; Cohen, 2013; Krepon, 2010). Recently, the conventional technology of South Korea has been given scholarly attention in discussions on deterrence dynamics on the Peninsula (Bowers and Hiim, 2021).

High tensions and conflicts have plagued the Korean peninsula for decades, and scholars have falsely predicted a second Korean War many times (Lerner, 2018; CSIS, 2020; Kang, 2003). This thesis examines how nuclear weapons, in different stages of progression, has affected conventional military aggression. A database by the Center for Strategic and International Studies (CSIS) provides information on all North Korean provocations from the Korean War in 1953 to 2020. Based on this information, I have organised all provocations into categories in a dataset to suit the purpose of this analysis. The observations indicate a gradual decrease in conventional military aggression aligned with nuclear weapons pursuit. With access to information on all provocations since the Korean War, the thesis will assess the variation in

conventional aggression in four stages of nuclear development. By doing so, the analysis will identify trends in conventional aggression and discuss the causal relationship, if any, between nuclear weapons development and conventional military behaviour.

1.1 Research Question

North Korea`s nuclear and conventional posture seeks to deter two sets of threats. First, it has to hold South Korea at risk as its neighbouring adversary poses a territorial threat. Second, Pyongyang also faces a great threat posed by the U.S. as a nuclear superpower in addition to being a nuclear guarantor for South Korea (Panda, 2020, p. 5; Roehrig, 2017b). As North Korea has followed a path of nuclear weapons development, observers have been concerned about the possibility that the conventional aggression should increase (Roehrig, 2016, p. 181; Snyder, 1965; Jervis, 1984).

However, preliminary findings collected for this analysis suggest that North Korea`s conventional aggressiveness has declined. I intend to investigate the regional conventional behaviour after nuclear acquisition in the case of North Korea as a young nuclear weapons state. More specifically, I will analyse North Korea`s conventional aggression towards South Korea, and how this has been affected by North Korea`s quest for nuclear weapons. This also includes provocations conducted towards South Korea`s allies in the region. My main research question is as follows:

> Does North Korea`s nuclear weapons development embolden the state`s conventional military behaviour?

The analysis seeks to investigate whether North Korea has become more or less aggressive in terms of conventional provocations in relation to the development of nuclear weapons. The purpose is to uncover trends and variation in four respective phases of North Korean development, and to unpack the different forms of aggression we can observe during the six decades I analyse in this thesis.

This research question will empirically explore North Korean military aggression in relation to nuclear development, first to weigh in on the theoretical debates about increased aggression following nuclear development. But also, to investigate the gradual change in behaviour as nuclear development goes on. This is because much of the literature has focused on the first acquisition of nuclear weapons specifically, and not on a gradual change following the development (Snyder, 1965; Jervis, 1984; Bell, 2015; Narang, 2014).

Mark Bell`s framework for understanding state behaviour after nuclear acquisition, and the stability-instability paradox, are examples of theories that can help explain post-nuclear acquisition behaviour (Bell, 2015; Snyder, 1965). But they do not specifically investigate conventional aggression in progressive steps of nuclear weapons development. The thesis investigates all provocations conducted under a selection of cases that mirror North Korean nuclear weapons development. This will help uncover variation and patterns of conventional military behaviour along the line of nuclear weapons development.

1.2 Contemporary Relevance

The world has moved on from the bipolar global superpower competition involving massive nuclear arsenals. The new nuclear age comprehends several regional nuclear powers with small nuclear arsenals. These regional nuclear powers are often entangled in longstanding rivalries. As the world has entered this new nuclear age, previous literature on nuclear strategy, based on the superpower model, is insufficient for this new era. Narang claims that we have a poor understanding of the unfolding nuclear dynamics because many theories are based on the bipolar superpower model (Narang, 2014, p. 1).

These regional nuclear states face different challenges as opposed to the Cold War superpowers, which calls for further research on the nuclear strategies and challenges of these states (Narang, 2014, p. 2). This thesis intends to contribute to further research on North Korea as one of the regional nuclear weapons states, and to explanations on conventional military behaviour in relation to the development of nuclear capabilities over time in a young nuclear weapons state. Nuclear weapons` effect on North Korean conventional aggressiveness is relevant because it has been known to lead an aggressive policy towards South Korea for a long time (CSIS, 2020; Lerner, 2018). I argue it is time to analyse this aspect of the North Korean nuclear doctrine.

Aside from an expected change in North Korean conventional military behaviour, a nuclear North Korea also has implications for strategic dynamics in the region. An example of this is that it might produce new proliferation incentives for South Korea and Japan (Panda, 2020, p. 286). South Korea has already started to develop an independent nuclear deterrent through conventional capabilities due to the threat that North Korea poses (Bowers and Hiim, 2021, p. 8). Additionally, this strategy concerns a hedge against a possible abandonment by the U.S.. In the case of a U.S. abandonment, Bowers and Hiim argue that it would also ease the path to a possible nuclear deterrent (Bowers and Hiim, 2021, p. 19).

It is due to the eroding lines between nuclear weapons and conventional capabilities in modern time that South Korea has the choice of pursuing this strategy of conventional advancement. North Korea on the other hand has focused on nuclear weapons development, while conventional aggression seems to decrease (CSIS, 2020). This nuclear emphasis could possibly be explained in a nuclear compensation strategy for conventional shortcomings. However, Bruusgaard (2021) argue in recent studies about Russia that the choice of relying on nuclear weapons is not always unproblematic, and with the new ability of conventional weapons to deter nuclear weapons, states have a choice to improve its conventional capabilities instead. By investigating the four stages of nuclear weapons development, this thesis will examine how North Korea has approach this dilemma.

1.3 Answering the Research Question

The investigation of this research question is based on an expectation that nuclear weapons acquisition can affect patterns of conventional military behaviour and risk-taking, and that we should expect a change following this development in respective phases of progress.

Process tracing will be used to uncover trends and variation in the four stages of nuclear weapons development. Process tracing is a method in which causal claims can be tested, and it is useful when engaging in historical explanations (Collier, 2011, p. 824; Mahoney, 2015, p. 202). It is necessary to examine conventional provocations over time to uncover variation in North Korean conventional military behaviour. This is best pursued by using process tracing. Process tracing helps draw causal explanations between nuclear weapons development and conventional military behaviour. It also allows me to identify the changes in conventional military behaviour in the intervals of nuclear weapons development. These stages of nuclear weapons development serve as four cases within this analysis. They have been defined based on typical steps that a state needs to go through to acquire operational nuclear weapons eventually.

A new set of foreign policy tools is expected to provide the state with new deterrence possibilities, a favourable negotiating position, and military strategies. Therefore, the cases are selected based on the nuclear weapons development that North Korea has to go through to develop a nuclear arsenal. Along the gradual line, we should expect a change in conventional military behaviour and strategy in accordance with these phases.

Phases of Nuclear Development	Time:
Pre-Nuclear Program	1958-1979
Reactors and Technology	1980-1999
The First Acquisition of Nuclear Weapons	2000-2006
Developing a Nuclear Arsenal	2007-2020

Table 1: Overview of phases for investigation

The phases are: Pre-Nuclear program 1958-1979 (1); Reactors and Technology 1980-1999 (2); The First Acquisition of Nuclear Weapons (2000-2006); Developing a Nuclear Arsenal (2007-2020). The first phase takes on the period before the nuclear program started. The second phase is when technology and reactors for nuclear weapons start. The third phase reflect the time when the technology and reactors are taken a step further and the first nuclear test was conducted. Lastly, the fourth phase takes on the time when expanding and developing a nuclear arsenal was focused.

In the following chapter, I will briefly go through previous literature on the nuclear weapons` effect on states before explaining the theoretical expectations for the North Korean case, and how North Korea should be understood. In the next chapter I will explain the methodological choices that have been made to best approach the research question. A chapter identifying the trends of provocations will follow. It is beneficial to address this before going forward with the analysis, as it gives insight into the trends. I will then go on with the analysis, investigate the reason for this trend, and explain how North Korean nuclear weapons have affected conventional military behaviour. Lastly, discussing other possible factors that can explain North Korea`s conventional behaviour from 1958-2020 will be fruitful. This helps increase confidence in the validity and reliability of the findings.

2.0 Theoretical Frameworks

The discussion on nuclear weapons` impact on foreign policy and state behaviour has been great since the end of the Cold War, and explanations on how nuclear weapons can facilitate aggression has been given attention to (Bell, 2015; Narang, 2014). But preliminary findings for this analysis suggest a decrease in conventional aggression after nuclear acquisition. The first section of this chapter will therefore explain how this thesis can contribute to explanations on this topic.

The following section will explain the strategy of brinkmanship and how North Korea has pursued this. This is a key concept as it relates to both the conventional and strategic aggression. A description of nuclear deterrence will follow as this is essential when speaking of the behaviour of nuclear weapons states, and for addressing the U.S. extended deterrence for South Korea. Next, I will elaborate on deterrence in the conventional aspect. This part is essential in explaining the development of North Korea`s behaviour prior to-and post-nuclear acquisition. The following section will concern the eroding line between nuclear and conventional capabilities. A greater ambiguity has emerged as the advancement of conventional capabilities have increased, and this might have implications for North Korean military behaviour in the recent phases of nuclear weapons development (Bowers and Hiim, 2021; Bruusgaard, 2021). Lastly, I will briefly look into North Korea`s nuclear posture as this can help understand the behaviour of a threatened nuclear weapons state.

2.1 Literature Review

2.1.1 The Stability-Instability Paradox

When it comes to research on nuclear weapons behaviour after nuclear acquisition, the Cold War concept of stability and instability offers key insights. The paradox has been subject to sustained academic interest because it highlights a crucial problem relating to an upsurge of lower level of conventional violence related to a robust nuclear capability. Starting with the U.S-Soviet conflicts during the Cold War, it has been applied to discussions of regional proxies, conflict patterns in South Asia, and regional implications for Iranian and North Korean nuclear arsenals (Watterson, 2017, p. 83). Scholars have referred to Glenn Snyder`s "The balance of power and the balance of terror" of 1965 as the origin of the paradox (Snyder, 1965). The concept is summarised as follows "the greater the stability of the

strategic balance of terror, the lower the stability of the overall balance at its lower levels of violence" (Snyder, 1965, p. 198-199).

Robert Jervis elaborated on the concept in 1984 when he wrote: "To the extent that the military balance is stable at the level of all-out nuclear war, it will become less stable at lower levels of violence" (Jervis, 1984, p. 31). Furthermore, when stability at the strategic level is enforced by deterrence, it causes instability at lower levels of conflict (Watterson, 2017, p. 84). If an uncontrollable war would lead to mutual destruction, neither side should ever start one. The stability that this produces, allows either side to engage in limited violence (Jervis, 1984, p. 31). The idea is that a threat of escalating a conflict to the nuclear level is less credible when there is a balance at the strategic level. However, Jervis also points out that if there is instability at the strategic level, and both sides fear that an increase in tensions would lead to escalation to the nuclear level, then fierce competition would be seen as more dangerous, which would make the adversaries` behaviour moderate (Jervis, 1984, p. 31).

2.1.2 A Cold War Concept and the New Nuclear Age

Even though the stability-instability paradox was used to explain the Cold War dynamics between two superpowers, it has frequently been revisited in contemporary analyses. North Korea and the Indo-Pakistani conflict are among them (Kapur, 2005; Cohen, 2013; Roehrig, 2016; Watterson, 2017). Discussions on whether the paradox can explain North Korea`s behaviour has increased after it became a realistic nuclear threat (Roehrig, 2016). This has been given attention in the limelight of the Indo-Pakistani conflict. However, there are no clear answers to whether the Indo-Pakistani conflict can be explained through the stability-instability paradox. This disagreement can partially be explained through the debate on whether there are two possible interpretations of the paradox. Scholars have been ascribing theories of low-level violence to the paradox, where the theories imply both possibility and impossibility of conflicts escalating to the nuclear level. However, the non-escalatory model predominates the literature, meaning it is impossible for low-level violence to escalate to the nuclear threshold (Watterson, 2017, p. 84).

Paul S. Kapur (2005) argues that there is an ambiguity in the literature on the stability-instability paradox as explanation for the conflict in nuclear South Asia. In turn, this is problematic because a proper understanding of the concept is crucial in determining whether the stability-instability paradox explains the Indo-Pakistani case. Furthermore, he concludes that the paradox did not facilitate the conflict between India and Pakistan (Kapur, 2005, p.

130; Kapur, 2005, p. 132; Kapur, 2005, p. 151). Nuclear escalation is a serious possibility in the event that a limited confrontation spirals into a full-scale conventional conflict (Kapur, 2005, p. 151). On the contrary, Michael D. Cohen (2013) finds that the stability-instability paradox does explain the Indo-Pakistani conflict because nuclear stability encouraged conventional instability. Cohen argues that there is only one interpretation of the paradox, and rejects that nuclear escalation facilitates regional violence. He claims that the non-escalatory model predominates (Cohen, 2013, p. 435; Watterson, 2017, p. 84).

As North Korea has developed its nuclear capabilities, scholars have also started to discuss whether this can explain its behaviour as a nuclear power, and if this would make North Korea more conventionally aggressive towards South Korea (Roehrig, 2016). Terrence Roehrig argues that the stability-instability paradox does not yet explain the North Korean case (Roehrig, 2016). The paradox may be more relevant in explaining the Indo-Pakistani conflict, but North Korea has not conventionally become more aggressive after nuclear weapons acquisition. A possible explanation could be that the time for the paradox to take effect on the Korean peninsula is not fully ripe. Meaning the strategic stability that is a prerequisite for the paradox to take effect is not there. Another thought is that other theories should be used when analysing new regional nuclear weapons states (Narang, 2014). The paradox does not focus on a gradual change in behaviour as nuclear weapons development progresses. This analysis will seek to do just that.

2.1.3 New Dynamics and Regional Nuclear Weapons States

The literature on nuclear weapons has focused on how states should behave according to theoretical explanations and lacks information on how they do behave (Bell, 2015, p. 87). The stability-instability paradox can be a good exemplification of this. Even though it has been used to discuss Indo-Pakistani conflicts to a large extent, it does not fit the North Korean case. A reason for this might be due to the fact that the new regional nuclear dynamics are not easily explained under the same framework developed for the superpowers during the Cold War.

According to Narang, regional nuclear states face different challenges as opposed to the Cold War superpowers. In turn, this calls for further research on the nuclear strategies and challenges prone to regional nuclear powers (Narang, 2014, p. 2). Second, the existing literature on regional nuclear weapons states has focused on the initial acquisition of nuclear weapons (Narang, 2014, p. 3). This thesis will contribute to further research on North Korea

as one of the regional nuclear weapons states. Second, it also intends to contribute to explanations on conventional military behaviour in relation to the development of nuclear capabilities over time. Accordingly, it also seeks to explain the pre-acquisition behaviour.

In this new nuclear age, the foreign policy behaviour of these regional nuclear states has also been analysed. Vipin Narang has categorised different postures for regional nuclear weapons states. The framework helps understand how regional nuclear weapons states use their nuclear weapons and at what time in a conflict they would escalate to a nuclear level (Narang, 2014). This can also help understand North Korea and to what extent nuclear weapons have been in focus. The postures are a good contributing explanation that will be used in the analysis. However, the framework does not claim to predict how nuclear weapons states would act conventionally in different stages of nuclear weapons development on their own.

Similarly, Mark Bell provides a framework for understanding nuclear weapons states foreign policy after acquisition. By proposing six different foreign policy behaviours that nuclear weapons may facilitate, it gives insights to how nuclear weapons states might act after acquisition (Bell, 2015, p. 91). However, this framework does not explain specific changes over time and during the development of nuclear weapons. This thesis will hopefully give insight to just that. It will investigate how nuclear North Korea has behaved up until now and how nuclear weapons have affected that behaviour. In sum, both of these frameworks are valuable in explaining the behaviour of nuclear weapons states. But they do not specifically explain how it affects conventional military behaviour. Which I argue is interesting and fruitful to investigate, especially in a case like North Korea.

2.2 Brinkmanship

North Korea has conducted conventional provocations since the Korean War (CSIS, 2020). However, the idea of conducting provocations towards South Korea as part of a foreign policy has also been brought up post-nuclear acquisition as the term "brinkmanship" (Narang and Panda, 2020). The term was first used to describe the U.S.-Soviet relation during the Cold War, and the most prominent example of this is the Cuban Missile Crisis (Britannica, n.d.). The definition of brinkmanship is:

> A foreign policy in which one or both parties force the interaction between them to the threshold of confrontation in order to gain an advantageous negotiation position over

the other. The technique is characterised by aggressive risk-taking policy choices that court potential disaster (Britannica, n.d.).

2.2.1 Brinkmanship in the Nuclear Weapons Debate

The strategy of risking the brink of war to achieve a good negotiating position over an adversary is assumed to have been used for a long time. With nuclear weapons comes a new set of foreign policy tools and available military behaviour. The use of nuclear weapons during the Cold War was to threaten the other, and to pose as a risk that the respective states were willing to take to achieve their interests. We can therefore speak of a nuclear brinkmanship.

Vipin Narang and Ankit Panda discussed how North Korea pursues a permanent brinkmanship strategy. What they mean by this is that "North Korea seems prepared to deliberately dance at the edge of the nuclear cliff both in peacetime and in crisis" (Narang and Panda, 2020, p. 48). According to them, Kim Jong-Un calculates that a conventional invasion by the U.S. and its allies is unthinkable. The logic behind this is the great risk of uncontrollable escalation past the nuclear threshold that the U.S. would have to take. Kim would posture his conventional forces and keep nuclear capabilities that can reach American territory in reserve. These nuclear capabilities that can reach American territory are what he calculates as a deterrent preventing the U.S. from risking escalation (Narang and Panda, 2020, p. 49).

Does this permanent brinkmanship imply that we should see the same strategy from the beginning to the end? Should we assume a consistency in military behaviour from before nuclear acquisition to the present? This might be a good thought, but this analysis seeks to explain lower conventional aggression in correlation to nuclear weapons development. That means that if there is a change in using conventional weapons to pursue a brinkmanship, to using nuclear weapons to pursue a brinkmanship, then that is in fact, a change in conventional military behaviour due to nuclear weapons development.

2.2.2 Conventional Brinkmanship

After looking into the origin of brinkmanship as a term and understanding what Panda and Narang refer to as a North Korean brinkmanship strategy, it is clearly closely tied to nuclear weapons and nuclear deterrence. However, we might also speak of a conventional brinkmanship in a similar way. Before North Korea acquired nuclear weapons, it conducted

multiple conventional provocations that have sometimes been on brink of war (CSIS, 2020: Panda, 2020, p.61).

One example of committing to an aggressive behaviour that was close to all-out war is what has been referred to as the second Korean War. The second Korean War refers to the late 1960s where North Korea conducted an extreme number of different types of conventional provocations (Kang, 2003, p. 181; CSIS, 2020). Another example was in 2010 when the tensions were extremely high on the peninsula, and North Korea conducted two of its most serious provocations since the war: one attack on a South Korean vessel that killed 46 people, and an attack on Yeonpyeong Island that killed four civilians (Panda, 2020, p. 62). The strategy of provoking to the brink of war to achieve a better negotiating position might have been part of the pre-nuclear program. The strategy itself is about taking risks and pushing the limits to the largest extent possible before it results in a war.

This is important to understand as a non-nuclear North Korea is also interesting for this analysis to investigate the changes in conventional military behaviour over time. However, the differences that the remedies generate might be explanatory to how nuclear weapons have affected conventional military behaviour. The strategy might not be new for North Korea, but the capabilities available to pursue a brinkmanship can arguably have had an impact on conventional military behaviour. This type of change might be that conventional provocations have been replaced by nuclear provocations, resulting in less conventional provocations due to nuclear weapons development.

2.3 Nuclear Deterrence

Nuclear deterrence is an essential term to explain before moving on to investigating a state`s behaviour after nuclear acquisition. In general terms, deterrence is about using threats to make an adversary refrain from conducting an action you do not wish for it to take. The idea is that a threat will raise the costs for an adversary to the point where it will refrain from taking unwanted action. The threat is supposed to change the costs and benefits of performing the unwanted action. This is done by demonstrating or threatening that the benefits of the unwanted action will have consequences that will outweigh the benefits. "Deterrence theory maintains that, in the end, if the potential costs outweigh the gains, the challenger will likely be deterred" (Roehrig, 2017a, p. 14).

These deterrence threats can either be deterrence by denial or deterrence by punishment. Deterrence by denial seeks to either defeat an attack, or prevent an attack from happening. This is done by making the costs of attacking so high that it is not worth the benefits of the attack. This is closely tied to assessments of the military balance. If there is a military balance, then this deterrence is likely to succeed. Deterrence by punishment is about being able to threaten with punishment if attacked without having to defeat an adversary`s ground forces or breach its defences. With conventional weapons, states can use their conventional capabilities by threatening to defend themselves if attacked or by seeking revenge. As for the nuclear aspect, states can threaten to inflict great damage if an adversary takes unwanted actions (Roehrig, 2017a, p. 15).

We can speak of deterrence both in terms of conventional and nuclear weapons technology. However, the term was made clearer when nuclear weapons came into play as part of a state's foreign policy remedies. In these terms, deterrence became a way of thinking and utilising nuclear weapons (Roehrig, 2017a, p. 13). The use of their capabilities as part of a deterrence strategy is assumed to impact the military behaviour prior to- and post-nuclear acquisition. When new capabilities are available to the state, it gives the state a new set of options for its deterrence strategy. Next, this should also affect the conventional military strategy and aggression. It is crucial to keep the difference of conventional deterrence and nuclear deterrence in mind when investigating a change in North Korea`s conventional aggression.

2.4 Conventional Deterrence

Analysts have given renewed attention to the role of conventional weapons in deterrence (Roehrig, 2017a, p. 16). Daekwon Son (2019) revisited deterrence theory and denies the old assumption that nuclear states can only be deterred by other nuclear weapons states. The argument behind this is rooted in the technological advancement of conventional weapons in modern time. I will get back to the advancement of South Korea`s conventional technological development in this chapter.

Conventional deterrence is relevant for this analysis in two ways: first, the first case of this analysis includes pre-nuclear program North Korea. To assess the conventional aggression relative to the nuclear weapons development, we need to look into the exclusively conventional time period. This marks a change from exclusively conventional capabilities, to the possibility of conducting a nuclear deterrence strategy. Second, South Koreas advancement of conventional weapons technology blurs the line between nuclear and

conventional weapons and will likely affect North Korean behaviour and strategy (Bowers and Hiim, 2021).

When assessing the time period prior to North Korea`s nuclear weapons program, we have to understand the deterrence strategy of a non-nuclear weapons state. This is because nuclear deterrence logics differ from conventional deterrence. The general goal of deterrence is to prevent an adversary from attacking or inflicting damage on the state. In sum, it concerns the strategy of preventing war (Wirtz, 2018, p. 58). Furthermore, capabilities are the remedies used in a strategy of deterrence. If not relying on bluff, the state needs military capabilities to respond to threats if the deterrence fails (Wirtz, 2018, p. 59). Conventional deterrence is therefore fundamentally different from nuclear deterrence.

Credibility is an important component in both conventional and nuclear deterrence. For North Korea to successfully deter the U.S. and South Korea, it needs to showcase its capabilities. By threatening to attack if a certain line is crossed, Pyongyang needs to convince Washington and Seoul that it actually possesses the capabilities needed to execute the threat (Wirtz, 2018, p. 58-59). Nuclear and conventional deterrence come with different benefits. Wirtz argues that deterrence by punishment is most suitable for conventional capabilities (Wirtz, 2018, p. 72). For pre-nuclear North Korea, a conventional deterrence strategy would have to involve threats that can actually be executed based on the conventional capabilities available, and it would have to convince its adversaries that it actually holds the capabilities. This is interesting for the analysis, because one way of convincing its adversaries that it has both the determination and capabilities to execute a threat might be to specifically conduct conventional provocations. In turn, this conventional deterrence might be closely tied to a conventional brinkmanship strategy in which an aggressive behaviour is pursued.

2.5 The Eroding Distinction between Nuclear and Conventional Weapons

The advancement of conventional weapons technology has emerged since the Cold War discussions on strategic stability. It has been given renewed attention in terms of deterrence theory as the accuracy and power of conventional weapons can do some of the tasks of nuclear weapons (Roehrig, 2017a, p. 15). South Korea is a case that illustrates how technological shifts are challenging common assumptions about nuclear strategy, and the role of conventional weapons (Bowers and Hiim, 2021, p. 9). Thus, we have to assess this technological advancement when speaking of strategic stability. The advancement of

conventional weapons has made the distinction of strategic and conventional levels blurrier. This advancement of new military capabilities can increase uncertainties associated with strategic stability. This could also affect escalation and change the way deterrence and escalation operate in a dyad (Talmadge, 2019, p. 864).

The strategic problem of deterring conventional aggression with nuclear weapons is old (Bruusgaard, 2021, p. 8). However, because of the technological advancement, we also have to assess conventional capabilities as a deterrence strategy against nuclear weapons states. An illustration of conventional capabilities' ability to deter nuclear weapons is provided by Bruusgaard (2021): Despite being the largest nuclear weapons state in the world, Russia perceives U.S. conventional capabilities as a potential security threat that could jeopardize its existence (Bruusgaard, 2021, p. 1). This has implications for the analysis where we have to include the aspect of South Korea as a conventional threat to North Korea.

2.5.1 South Korea`s Conventional Capabilities

If South Korea has conventional capabilities that can deter North Korea`s nuclear arsenal, we might expect this to have an implication for North Korea`s conventional aggression. Despite the U.S. being North Korea`s nuclear adversary, this technological advancement makes South Korea`s conventional military capabilities interesting for this analysis, and North Korea has to take this into consideration in its deterrence strategy. North Korea`s deterrence challenge is two-fold. In addition to the nuclear threat from the U.S., South Korea with its conventional capabilities poses as a territorial threat to North Korea (Panda, 2020).

Due to the fact that lines between conventional and nuclear capabilities is becoming blurrier, questions concerning whether South Korea has conventional strategic capabilities able to deter North Korea at the nuclear level arises. It does also raise questions as to whether South Korea can endanger North Korea`s nuclear weapons. I will elaborate further on South Korea`s conventional capabilities in the next section of this chapter.

The deliberate use of nuclear weapons in an all-out strike against an opponent with retaliatory capabilities defy credibility. However, the inadvertent nuclear escalation is a concern (Talmadge, 2019, p. 868). Talmadge (2019) argues that the inadvertent nuclear escalation could occur as a result of a state`s conventional military campaign infringing the adversary`s nuclear arsenal. This could generate unintended use-or-lose pressures. In sum, this would showcase the blurry line between conventional weapons and nuclear weapons, because conventional as well as nuclear capabilities could generate escalation.

2.5.2 Conventional Capabilities on the Korean Peninsula: Implications for Deterrence

North Korean nuclear weapons are subject to compensation for outdated conventional capabilities (Albert, 2020). While North Korea possesses nuclear weapons, South Korea is conventionally superior. The time when North Korea held an economic and technological edge over South Korea is passed. North Korea`s conventional capabilities stagnated in the 1990s. This growing gap has changed the dynamics between the two Koreas (Albert, 2020).

South Korea has recently pursued the path of conventional advancement, while North Korea has pursued the nuclear development. It is possible that this can be explained through a nuclear compensation strategy. As North Korea has remained conventionally inferior to South Korea for a long time, it is possible that North Korea has also committed to a nuclear compensation strategy. In turn, this would contribute to explanations on conventional military behaviour. Due to the technological advancement, it is possible to view this as a choice. A state can either advance its conventional arsenal, or commit to a nuclear compensation strategy (Bruusgaard, 2021, p.10).

The initial observations for the analysis show that conventional aggression gradually decreases. Is this because Pyongyang relies solely on their nuclear weapons, or is it because the nuclear weapons have replaced the tasks of conventional capabilities? This would relate to a nuclear weapon compensation strategy similar to the one Russia conducts towards the U.S. (Bruusgaard, 2021). Since the Cold War, Russia has threatened to use nuclear weapons against large-scale conventional attacks due to conventional inferiority to the U.S. and NATO (Bruusgaard, 2021, p. 3). However, Russia has improved its conventional capabilities to the point where it is less reliant on nuclear weapons (Bruusgaard, 2021, p. 26). In turn, these improvements provide Russia with a more flexible and credible deterrent because the different capabilities can be adapted to the threat's severity accordingly (Bruusgaard, 2021, p. 23).

It seems the two Koreas have chosen opposed directions. Because of the technological advancement, we also have to assess conventional capabilities as a deterrence strategy against nuclear weapons states. This has implications for the analysis where we have to include the aspect of South Korea as a conventional threat to North Korea.

Despite having two times the size of South Korea`s troops, the technology of North Korean capabilities are decades old (Albert, 2020). North Korea has a greater quantity of ground forces, but South Korea beats it on quality (Albert, 2020). This technological advancement

gives South Korea the conventional advantage. A navy force exemplification of this imbalance is South Korea`s Sejong – class destroyers which are equipped with 128-cell vertical missile launch systems, while North Korea`s Najin class frigates have just two launchers each. This indicates that North Korean naval vessels could be destroyed by South Korean naval forces before they even began full-scale operations (Albert, 2020).

We might expect South Korea`s ability to infer with North Korean nuclear weapons to have implications for deterrence on the Korean peninsula. Seoul`s advancement includes missile defence systems, and high precision ballistic and cruise missiles. Bowers and Hiim argues that this development of advanced ballistic and cruise missiles will enable a possibility of acquiring a conventional nuclear deterrent (Bowers and Hiim, 2021, p. 8).

An example of such capabilities that can infer with North Korean nuclear weapons are a series of South Korean ballistic missiles called Hyunmoo-2. These missiles can target most of North Korea (Bowers and Hiim, 2021, p. 26). According to Bowers and Hiim, South Korea is also likely to rely on tactical missile systems to target both North Korean leadership *and* missiles. It is noteworthy to address that it remains to be seen if South Korea has capabilities that can comprehensively target North Korea`s missile launchers (Bowers and Hiim, 2021, p. 26). These dynamics are relevant to explanations on North Korean aggressiveness because we should expect an adaption to this dilemma. North Korea would have to address this issue and adapt their strategy accordingly, either conventionally or with nuclear deterrence.

2.5.3 Categories of Nuclear- and Non-Nuclear Capabilities

For the purpose of simplifying the terminology on nuclear and conventional capabilities, table 2 illustrates examples of different types of capabilities. This will help get an understanding of the multiple types of weapons, and mirror the advancement on conventional weapons technology. This is primarily to get a visualisation of the blurred lines between nuclear and conventional weapons.

Conventional Weapons	Non-Nuclear Strategic Capabilities	Strategic Nuclear Capabilities
ROKs Cheonan	ROKs missile defence system: Korean Air and Missile Defence	ICBMs: DPRKs Hwasong 14 and 15
Combat Vehicles	DPRK Precision-guided Hwasong 6 (not considered nuclear capable yet)	Short and medium range ballistic missiles: DPRKs Pukguksong-3 and Hwasong-5 and -6
DPRK Najin Class Frigates	ROKs kinetic capabilities: Kill Chain strategy	Intermediate range ballistic missiles: DPRKs Hwasong 10 and 12

Table 2: Examples of different types of capabilities (Bowers and Hiim, 2020; Albert, 2020; ONN, 2020; Panda, 2020)

2.6 Extended Deterrence

2.6.1 Extended Deterrence - U.S.-South Korea

I explained both conventional and nuclear deterrence in the section above. But as deterrence theory has evolved, we can also speak of extended deterrence. Extended deterrence is about deterring an attack on an ally (Roehrig, 2017a, p. 17). The U.S. has an extended deterrence commitment to protect South Korea as part of a system of alliances in East Asia. This includes a mutual security treaty in which the U.S. has placed troops along the Demilitarised Zone (DMZ) as a sign of determination to defend South Korea. Washington also vowed to use nuclear weapons to deter and defeat a possible attack on South Korea (Roehrig, 2017b, p. 651). South Korea fell under the American nuclear umbrella after the Korean War, and the first American nuclear weapons arrived in South Korea in 1958 (Roehrig, 2017a, p. 58).

The American nuclear umbrella provides South Korea with reassurance by threatening Pyongyang with a response if it were to use nuclear weapons (Roehrig, 2017a, p. 51). It has become an important part of the regional security for South Korea (Roehrig, 2017b, p. 652). This extended deterrence that the U.S. provides South Korea with infers with the dynamics

between the two Koreas. It is because of this agreement that North Korea has to turn its deterrence towards both South Korea and the U.S. simultaneously. This helps understand the deterrence strategy of North Korea. It is expected to contribute to the explanations as to why conventional aggression is decreasing.

2.6.2 Credibility and Extended Deterrence

When it comes to extended deterrence, Jervis uses a Cold War example to outline a difficulty in deterring attacks on allies. "If all-out war means the destruction of the U.S., would not American leaders prefer to see Western Europe conquered by Russians, rather than attacking Soviet with nuclear weapons and risking retaliation?" (Jervis, 1984, p. 33). Credibility is central to this problem that Jervis outlines because it is a requirement for successful deterrence (Roehrig, 2017b, p. 651). If the U.S. homeland is at risk for retaliation, then the credibility of extended deterrence might be weakened. If the interests at risk are seen as vital to the state providing extended deterrence, there is not a problem with credibility (Jervis, 1984).

2.6.3 Conventional Counterforce Strategy as Deterrence

Despite the debate on strategic stability on the Korean peninsula focusing on the dynamics of Washington and Pyongyang, South Korea seeks to secure itself from North Korea`s nuclear threat with the advancing conventional arsenal (Bowers and Hiim, 2021, p. 7). In order to deter Pyongyang (…) "South Korea is operationalizing an independent conventional counterforce strategy" (Bowers and Hiim, 2021, p. 8). It is also seeking to hold North Korea`s leadership at risk. This strategy is being developed within the frameworks of the alliance with the U.S. However, the goal is an independent operational capability (Bowers and Hiim, 2021, p. 8). South Korea is seeking to increase its independency trough nuclear hedging (Bowers and Hiim, 2021, p. 14). Additionally, Bowers and Hiim argue that if the U.S. alliance broke down, South Korea would likely seek the development of nuclear weapons (Bowers and Hiim, 2021, p. 14).

This strategy has implications for the strategic stability at the Korean Peninsula. The strategy may reduce the likelihood of North Korea engaging in nuclear brinkmanship. However, North Korea will aim at designing around South Korea`s strategy and intensify its efforts to build a survivable nuclear arsenal. Although the strategy bolsters South Korea`s deterrence, worst case scenario, it may also increase the likelihood of nuclear use. It will give Pyongyang incentives to race for new weapons to ensure survivability (Bowers and Hiim, 2021, p. 9).

2.7 Nuclear Posture

When it comes to explaining North Korea`s deterrence strategy, its nuclear posture is central. More specifically what role its nuclear arsenal might play in the execution of its national deterrence-survival strategy (Panda, 2020, p. 78). Narang distinguishes between three types of nuclear postures. (Narang, 2014, p. 14). The first nuclear posture Narang presents is the catalytic nuclear posture. This is about the envision of catalysing third-party military or diplomatic assistance when a state`s vital interests are at stake. This third party is often American. A state can catalyse a third party by threatening to use nuclear weapons in a conflict if the patron does not intervene and help. For this to work, the more powerful patron needs to have own interests in keeping a stability in the region in question (Narang, 2014, p. 15).

Assured retaliation posture threatens the early use of nuclear weapons to deter attacks. This posture is usually adopted when the state can survive a second-strike attack (Narang, 2014, p. 17). What distinguishes this posture from the other two is that first-strike survivability and ability to retaliate with a second-strike should be present (Narang, 2014, p. 18).

The last posture Narang presents is asymmetric escalation. This posture is often used to deter conventional attacks with nuclear weapons. From its name, this posture threatens an asymmetric escalation response to an attack. This posture is considered the most aggressive option due to the threat of asymmetric escalation in a conflict. It is important that the capabilities of the state with this posture are credible. Therefore, it needs to be transparent about these capabilities (Narang, 2014, p. 20). Because of the risks of escalating to the nuclear level early, this posture is most attractive alternative to threatened states (Narang, 2014, p. 20).

Panda argues that the asymmetric escalation posture is the one most plausible for North Korea to adopt. North Korea fits the description of which states are most attracted to this posture because it is an insecure nuclear state that faces territorial threats. Furthermore, Panda draws lines between North Korea and Pakistan. Pakistan is conventionally inferior to India, and after its nuclear acquisition it threatens to use nuclear weapons as retaliation on a conventional attack (Panda, 2020, p. 80; Narang and Panda, 2017). Kim Jong-Un is scared of a coercive unification that does not happen on his terms, and nuclear weapons are supposed to serve the purpose of deterring such an attempt (Panda, 2020, p. 81). This posture can be explained in the use-or-lose pressures that North Korea might face. In order for Pyongyang to deter the

U.S., it would have to escalate to the nuclear level early because it is vulnerable to a first strike. South Korea and the U.S. could be able to destroy Kim`s warheads and missiles. In that case, Pyongyang would not be able to stand a chance (Panda, 2020, p. 83).

This theoretical framework does not seek to predict conventional aggression. However, a nuclear posture helps understand the state`s behaviour when nuclear weapons have been acquired. Asymmetric escalation that Panda discusses in terms of North Korea, can tell us about risk acceptance and incentives to escalate early in a conflict post nuclear acquisition. In terms of escalating to the nuclear threshold early in a conflict, it could also help explain how nuclear weapons will be used instead of conventional capabilities in certain conflicts.

3.0 Research Design

In this chapter, I will outline how the research question of this thesis will be answered. The research question is:

> Does North Korea`s nuclear weapons development embolden the state`s conventional military behaviour?

Behind this research question is an assumption that nuclear weapons development can affect state behaviour. Not just in terms of overall changes due to a new set of tools available to the state, but also specifically in terms of conventional military behaviour. This analysis seeks to explain a relation between nuclear weapons development and conventional military aggression. Investigating and understanding how nuclear weapons affect a state`s behaviour, in general, has become a hot topic in the past decades as regional nuclear weapons states have emerged (Narang, 2014; Bell, 2015; Panda, 2020). Referring to the effect nuclear weapons can have on conventional military behaviour and aggression, we might say that there are roughly three possible answers: more aggression, less aggression, and no change. The initial observations from the dataset used in this analysis show that North Korea has become less aggressive conventionally since the beginning of its nuclear weapons program (CSIS, 2020).

In order to uncover a possible relation between North Korea`s nuclear weapons development and its conventional aggression, the analysis investigates patterns of conventional military aggression along the chronological line of nuclear weapons development through four cases. The cases are selected on the nuclear weapons development. The empirics used are from a CSIS database that I have organised into a dataset with added categories to suit the needs for the analysis. The information in the CSIS database covers all provocations that North Korea has conducted from 1958-2020 in chronological order. In this chapter, I will elaborate on these aspects of the research design.

I will start by explaining the variables and associated preliminary expectations. Second, I will go over process tracing and case studies as a method for analysis and explain how this method is suitable to investigate this research question. I will then explain the case selection before I move on to the roadmap of the dataset and the empirics that will be used. The chapter ends with a discussion of the limitations of the research design.

3.1 Variables and Prerequisite Expectations

3.1.1 The Variables

The research question investigates the connection between the development of nuclear weapons and conventional military behaviour in North Korea towards South Korea. Therefore, the independent variable is North Korea`s development of nuclear weapons, and the dependent variable is North Korean conventional aggression. In order to investigate whether its nuclear development has emboldened the state`s aggressiveness in terms of conventional military behaviour, we need a way of measuring this.

To grasp North Korea`s aggression, it will be relevant to look into both the frequency of conventional provocations that have been performed, in addition to qualitative interpretations and the context of provocations. This enables the analysis to also look into the severity of the provocations made, as the frequency of provocations will not be sufficient in itself and could be misleading. Explanations of how these concerns have been conducted in the analysis will be elaborated on in the data material section.

The relationship between the U.S. and South Korea is essential to examine whether there is a connection between North Korea`s development of nuclear weapons and its conventional aggression. In addition to the U.S. being North Korea`s greatest threat and nuclear adversary, it also acts as South Korea`s protector (Roehrig, 2017b). Narang and Panda also argue that it is North Korea`s nuclear acquisition that makes North Korea capable of pursuing conventional provocations against South Korea and the U.S. (Narang and Panda, 2017). The analysis seeks to explain whether North Korea`s nuclear development has emboldened North Korea`s conventional aggression in the region. The connection here is made where the U.S. provides South Korea with extended deterrence. This would make this bilateral relationship a combined threat and adversary to North Korea. The dataset also includes provocations that have been conducted towards the U.S. in relation to its involvement on the Korean peninsula and other interested parties.

3.1.2 Theoretical and Prerequisite Expectations

It is reasonable to assume that a nuclear doctrine and nuclear weapons acquisition affects a state`s strategic and conventional behaviour. Multiple researchers have sought to explain this connection (Bell, 2015; Watterson, 2017; Roehrig, 2016). The deterrence tools available to a state makes a difference in military behaviour. Especially, from a non-nuclear weapons state

to a nuclear weapons state. Conventional deterrence is different from nuclear deterrence, as explained in the theory chapter. The prerequisite findings show that North Korea`s conventional aggression has decreased after nuclear weapons development started, and has kept decreasing gradually in correlation with nuclear development. Based on theories of nuclear weapons emboldenment, it might be plausible to think that North Korea should become more aggressive with both nuclear and conventional capabilities. Nevertheless, the initial empirics tell us otherwise. The expectation of how nuclear weapons embolden a state`s behaviour can be illustrated like model 1 below.
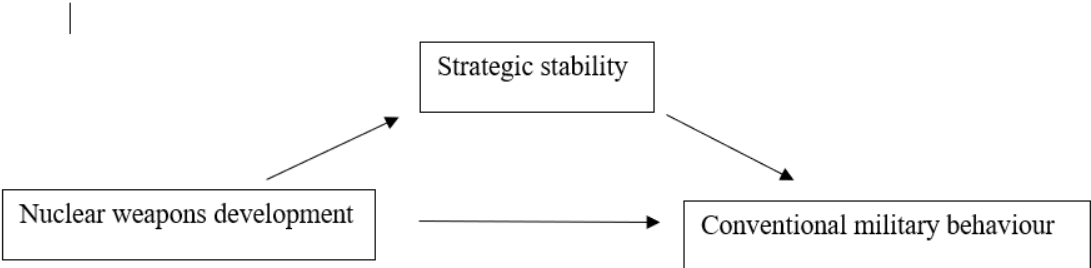
Model 1: Causal model on nuclear weapons development`s effect on conventional military behaviour.

First, nuclear weapons development is expected to have an effect on conventional military behaviour alone, either less or more. Second, nuclear weapons development that leads to strategic stability should lead to more conventional aggression according to the stability-instability paradox (Snyder, 1965; Jervis, 1984).

Theoretically speaking, it would be plausible to think that North Korea should become more aggressive conventionally after nuclear weapons development. However, engaging in conventional conflict and at the same time pursue a nuclear weapons arsenal is costly, especially for a state that has suffered economically for many decades (Habib, 2011). Therefore, another plausible expectation is that because North Korea is economically and conventionally inferior to South Korea and conventional weapons have been replaced by Nuclear weapons in a deterrence strategy, it can decrease conventional aggression. Another aspect that follows from this is the blurring lines between nuclear weapons and conventional weapons. South Korea focusing on conventional weapons, and North Korea using nuclear weapons as deterrence, might affect the strategic stability on the Korean peninsula. This

means that nuclear deterrence is critical when answering if North Korea has become more aggressive conventionally after nuclear weapons development.

As explained in the previous chapter, South Korea`s superiority in conventional capabilities and the advancement of its conventional technology poses a threat to North Korea both in terms of endangering the regime and the nuclear-capable missiles. The conventional superiority of South Korea can also have implications for North Korea`s conventional behaviour. In turn, this could be a limiting factor on North Korea`s conventional aggression. An additional comment to this is that the observations from the dataset imply that North Korea`s nuclear weapons development has emboldened North Korea`s conventional aggression towards South Korea. In the case of North Korea, a better causal model would be as follows:
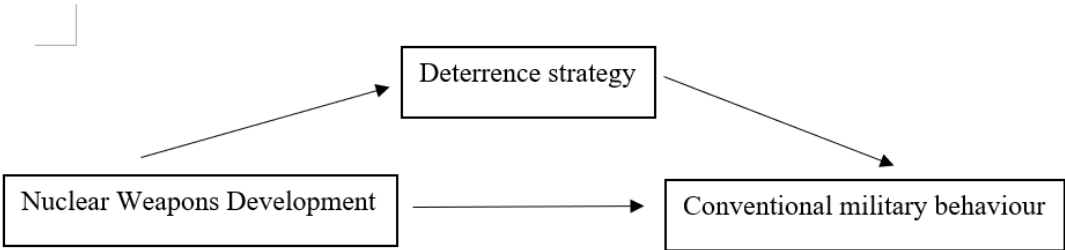
Model 2: Causal model on nuclear weapons development`s effect on North Korean conventional military behaviour.

With the introduction of nuclear weapons, a state is also offered a new set of tools to use in its deterrence strategy, which in turn affects the states conventional military behaviour. By introducing a new set of tools, the deterrence strategy goes from conventional to nuclear. It remains to analyse how nuclear weapons have affected conventional military aggression in the case of North Korea. We might also expect a change in conventional behaviour once a nuclear program is introduced, following a new mentality of deterrence and strategy towards nuclear acquisition.

3.2 Process Tracing

Process tracing is a method that uncovers causal paths and mechanisms (Halperin and Heath, 2017, p. 154). Process tracing will be used to uncover patterns of North Korea`s conventional aggression towards South Korea and the region along the line of its nuclear weapons development. Process tracing suits the research question because it comprehends both

conventional aggression and nuclear weapons development over time. The research question is also based on the assumption that there is a causal relationship between nuclear weapons development and the patterns of conventional aggression. Process tracing is a suitable method for analysing the events and mechanisms that constitute path-dependent historical processes (Halperin and Heath, 2017, p. 248).

It is expected that there is a link between North Korea`s conventional behaviour and the development of nuclear weapons. The purpose is to identify causal mechanisms that link nuclear weapons development to conventional aggression. This requires a careful tracing of the nuclear weapons development in accordance with conventional provocations and events that have taken place. In order to uncover a possible causal mechanism between nuclear weapons development and conventional aggression, it is necessary to identify both events and mechanisms. The event refers to a point in time where an old path is abandoned, and a new path begins (Halperin and Heath, 2017, p. 248). For this analysis, the point in time where a new path begins is with the pursuit of nuclear weapons in the 1980s (Cha and Kang, 2018, p. 2).

It is essential to treat all explanations equally when using process tracing (Mahoney, 2015, p. 202). These challenges vary depending on whether the goal is theory-testing or theory development. A central challenge to theory testing involves transparency and explicitness in execution. This requires scholars to be clear about how specific pieces of evidence from within a case support or challenge a given causal hypothesis. This may require explaining how evidence is part of a process tracing test, such as hoop test (Mahoney, 2015, p. 217). Challenges of theory development involve thoroughness in learning about a case. Good process tracing requires a strong understanding of the history of the case as well as a comprehensive grasp of theories relevant to explaining that case (Mahoney, 2015, p. 217).

3.2.1 Historical Explanations and Causal Inference

Researchers that apply process tracing are often interested in what X`s cause Y in case Z. First, we need to identify the X`s that might have caused Y in case Z (Mahoney, 2015, p. 201). One of the strengths of process tracing is that it can contribute to evaluating causal claims. It can also be used to draw descriptive and causal inferences from evidence. With a small n-study it can also strengthen causal inference through matching and contrasting cases (Collier, 2011, p. 824). Lastly, through the four empirical tests: Straw-in-the-wind, smoking-gun, hoop-test, and doubly decisive, it can evaluate the causal inference, whether it is

necessary for accepting the inference or sufficient. The tests can tell us about weakened competitive hypotheses, eliminate them, or assess them as less likely (Collier, 2011, p. 825).

Nuclear weapons development is expected to affect conventional military behaviour, making nuclear weapons X and conventional military behaviour Y in the case of North Korean nuclear weapons development. Second, we need to test whether X was a cause of Y. The question I have to ask myself is whether nuclear weapons development was the reason for a decrease in conventional military aggression. I will be using a dataset that has information on all provocations that have been conducted, both towards the U.S., South Korea, and other interested parties. This makes the empirics more reliable. Another way of addressing this is to discuss how other possible factors might have affected North Korea`s conventional aggression, such as differences in leaders and diplomatic relations over time.

This process of being able to discuss other possible factors requires the researcher to have good knowledge of both the history of the case as well as general existing theories explaining such cases. One needs to be able to think independently to do so (Mahoney, 2015, p. 202). As for explaining North Koreas aggression against South Korea, it is fruitful to also investigate how the diplomatic intervals and the U.S.-South Korean relationship has affected the dependent variable. In order to reach this conclusion that these factors might have played a part in it, it is necessary to look into the history of U.S-South Korean-North Korean relationships and the knowledge of North Korea`s resentment of the American presence on the peninsula. From this knowledge, it is reasonable to think that this might also have had an effect on the dependent variable. (Mahoney, 2015, p. 201-202).

Another reason that process tracing is a suitable method for this analysis is that it is often used when the analysis engages in historical explanations or identification of causes of outcomes that have already occurred. These explanations are usually composed of sequences of events or causal chains in which factors located at different points in time contribute to an outcome (Mahoney, 2015, p.202). With historical explanations, the researcher typically explains the outcome by using events that occur over time, referring to sequences of linked causal factors (Mahoney, 2015, p. 204). The sequences in this analysis are the time intervals that make up the four cases in chronological order. Researchers can mean different things when asserting X as a cause of Y, but the necessity of X for Y to happen is central (Mahoney, 2015, p. 203). For this case, I assume that the outcome of conventional aggression would be different without the introduction and development of the North Korean nuclear arsenal. Another way of

approaching this is by treating causes as contributing conditions. These are factors that contribute to, or increase, the probability of the outcome (Mahoney, 2015, p. 203).

The introduction and development of a North Korean nuclear arsenal contributed to the decreasing conventional aggression. This means that North Korea`s conventional aggression might have decreased anyway but to a lower extent. So, is X a necessity or a contributing condition? It seems likely that the reason for North Korea`s ability to invest in nuclear weapons development was due to the decrease in conventional spending in an impoverished state (Habib, 2011). This makes X a necessity for the decrease in conventional aggression. Whether it is a necessity of a contributing factor will be answered in the analysis and in the following discussion of other possible factors. If the other possible factors seem to have greatly affected conventional military aggression, then X is likely to be a contributing factor.

3.2.2 Testing the Assumptions and Findings

As a way of testing the validity of the data and analysis, Mahoney explores the mechanisms behind hoop tests, and how these tests allow the investigators to pass judgement on hypothesis formulation (Mahoney, 2015, p. 200). Hoop test proposes that a given piece of evidence from within a case should be present for a hypothesis to be true. Failing a hoop test counts heavily against a hypothesis but passing a hoop test does not confirm a hypothesis. The idea is for the hypothesis to jump through the hoop to avoid having serious doubt cast on its validity (Mahoney, 2015, p. 207). The relative difficulty of a hoop test is related to the likelihood of the within-case observations being present in the kind of cases under analysis (Mahoney, 2015, p. 208). Difficult hoop tests require the presence of rare or abnormal observations to the kind of case under study. Mahoney (2015) proposes three simple questions to ask for passing an easy hoop test that I apply to my research.

1. Did both X and Y occur?

- Yes, nuclear weapons development did occur, and conventional aggression did decrease

2. Did X occur before Y?

- Yes, gradually, as nuclear weapons development went on, conventional aggression decreased

3. Was it physically or theoretically possible for X to affect Y?

- Yes, we know that nuclear weapons development affects a state`s foreign policy

If the analysis passes these easy questions, the analysist can begin investigating the mechanisms that might link X to Y (Mahoney, 2015, p. 209). For this analysis to pass a hoop test, we need to find evidence that nuclear weapons development did influence conventional aggression, without the likelihood of these findings being coincidental (Mahoney, 2015, p. 208-209). To overcome this challenge or avoid such a pitfall, the empirics will be based on many provocations that have occurred, making it less of a chance that the findings are coincidental. Addressing these empirics in chronological order helps. The empirics are part of a cumulative picture that does not pass a smoking gun test, but with a large number of provocations that show a trend in the same direction and passes a hoop test, it gives confidence to the findings. There is also no disconfirming evidence. Overall, the empirical picture is consistent and identifies a clear pattern. Process tracing allows me to evaluate the data as valid through the hoop test due to the amount of data and the chronological aspect of them.

This should make the conclusion on trends and explanations to these trends very likely to be true. It is hard to test for 100% truth. However, this way of gathering empirics and this amount of data helps provide convincing findings. Additionally, I will also discuss a few other factors that might have affected the military behaviour of North Korea over time. These are differences in leaders, periods of diplomatic distress, and the occurrences of the South Korean-U.S. joint military exercises.

3.3 Qualitative Research and Case-studies

3.3.1 Case Study

Referring to a case study can mean different things. A few ways of referring to it is if the method consists of qualitative small-N, the research is characterised by process tracing, or investigates a single phenomenon, instance, or example. However, Gerring argues that these examples are better understood as describing certain kinds of case studies rather than the general phenomenon itself (Gerring, 2004, p. 342). One of the ideas behind Gerring`s definition of case studies is that it always employs more than one case. One case comprises several units, where each unit is observed at discrete points in time (Gerring, 2004, p. 342). The case of this thesis consists of four units. The analysis investigates four time-phases of

North Korea`s nuclear weapons development. In the following section, I will elaborate on why this selection is suitable for the analysis and on what grounds they were selected.

A case is considered unique and scientifically interesting in itself, without necessarily being a part of a universe. The case selection is based on strategic selection of what contexts are interesting and fruitful to study based on theoretical issues (Grønmo, 2016, p. 105). When studying North Korea`s conventional aggression in relation to its nuclear development, what is interesting is the threat that a nuclear North Korea poses. Pyongyang has recently achieved capabilities that can possibly reach the U.S. mainland (Narang and Panda, 2020, P. 47). The capabilities make a discussion of the dynamics between the U.S. and North Korea fruitful, and is likely to have an impact on North Korea`s behaviour.

3.3.2 Case Selection

North Korea as a nuclear weapons state is an important case to analyse in itself due to its recent development of nuclear capabilities. With the recently claimed nuclear deterrent in 2017 North Korea poses as a great threat to the international security (Panda, 2020, p. 285).

Nevertheless, the adversarial between North Korea and the U.S. is specifically interesting. The U.S. has long pursued a non-proliferation policy. In addition to the U.S.` policy of preventing states such as South Korea, Taiwan and Germany from developing nuclear weapons, Rabinowitz and Miller (2015) find that the U.S. has also sought to prevent Israel, South Africa and Pakistan from acquiring nuclear weapons. They also conclude that the U.S. has continued non-proliferation efforts after acquisition, where it has been of national interests to the U.S. (Rabinowitz and Miller, 2015, p. 47;48). This has been carried out by pressuring the signing of the Non-Proliferation Treaty (NPT) and economic sanctions (Rabinowitz and Miller, 2015, p. 49). Pyongyang has been subject to extensive pressure from the U.S. and the international community. A variety of policy responses have been used by the U.S., such as military cooperation with their allies in the region, wide-ranging sanctions, and non-proliferation mechanisms such as export controls (Masterson, 2020). Despite these U.S. non-proliferation efforts and extensive sanctions, North Korea managed to become a nuclear power.

In addition to having the U.S. as a nuclear adversary, another interesting aspect of exploring North Korea as a nuclear weapons state is the fact that it faces a non-nuclear territorial adversary. Technically, the two Korea`s are still in a state of war, and although North Korea has acquired nuclear weapons, South Korea is conventionally superior and has had a rapid

conventional technological development (Bowers and Hiim, 2021). This adds the aspect of blurring lines between nuclear weapons and conventional weapons to the dynamics of deterrence at the Korean peninsula. Most of the provocations North Korea has conducted are towards South Korea and the U.S. The deterrence aspect, both conventionally and strategically, is interesting and should be expected to affect their behaviour (CSIS, 2020).

3.3.3 Four Cases of Nuclear Development

The cases mirror North Korea`s nuclear weapons development. In order to uncover variation in conventional military behaviour along the line of this development, it is important to also assess the time period prior to the development. North Korea`s development of nuclear weapons has focused on the goals of deterrence for survival. In order to achieve this, there are five phases for development required (Panda, 2020, p. 88):

1. Fuel sources for nuclear weapons are necessary. This can be either plutonium or enriched uranium.

2. Nuclear knowledge and technical expertise is needed to manufacture warheads.
3. Ballistic missiles are needed in order for the weapon to reach its target.
4. These nuclear ballistic missiles are of no use if they cannot be relied on in a conflict.
5. The command and control of these weapons are crucial.
4. Ballistic missiles are needed in order for the weapon to reach its target.

The case will include time phases that comprehend these development steps and capture the gradual development of a nuclear arsenal. The purpose of this is to grasp variation in conventional aggression in relation to each step of the nuclear weapons development. This is based on the assumption that there will be a variation in conventional aggression in the respective phases due to nuclear weapons progression. The phases are:

1. Pre-Nuclear Program (1958-1979)

2. Reactors and Technology (1980-1999)

3. The First Acquisition of Nuclear Weapons (2000-2006)

4. Developing a Nuclear Arsenal (2007-2020)

The first phase begins with the first documented observation after the Korean War (CSIS, 2020). It is plausible to start the time from 1958 as this is where the empirics on conventional

provocations starts (CSIS, 2020). Additionally, it is important to start the analysis before nuclear weapons are introduced. This is crucial in order to capture variation and trends in conventional military behaviour post-nuclear weapons program. In order to analyse the effect a new variable has on the status quo; we need to examine the time before this change was introduced. This phase ends in 1979 where the next phase starts. This is because the 1980s are defined as the time where a nuclear weapons program was beginning to take form and become identifiable. Identifiable because nuclear weapons talks have been a subject before that, but it is necessary to draw a line in this case. The earnest drive for nuclear weapons started in the 1980s (Cha and Kang, 2018, p. 2)

As mentioned, the second phase starts when a nuclear weapons program is beginning to take form. This is a time where non-nuclear missile provocations are first conducted. These missiles have become nuclear-capable later on (ONN, 2020). As Panda explained, means of delivery is an important part of developing a nuclear arsenal. This marks a beginning of a nuclear arsenal, where technology and means of delivery are starting to show. However, no nuclear weapons tests were tested in this period. There is a gradual change from the first phase to this one (Panda, 2020, p. 88).

This phase is different from the second because the first nuclear test came in 2006 at the end of the third phase (CSIS, 2020). In order to grasp the years leading up to this event, it is fruitful to distinguish between the time where reactors and technology is emphasises, and when an actual weapon is acquired.

The fourth phase represents further nuclear weapons development and is therefore called Developing a Nuclear Arsenal. There is a difference between the third and fourth cases because nuclear weapons development is taken a step further. Going from being able to test a nuclear weapon to starting the production of an arsenal marks a step of progression in the development. In order to mark this difference in development, the fourth phase starts the year after this nuclear weapons test. Therefore, the fourth phase begins in 2007 and is limited to 2020. This phase represents when nuclear weapons are starting to become operational, and more tests are conducted.

The case of this thesis concerns North Korean conventional military behaviour in relation to nuclear weapons development. However, the units that make up this study are the four phases above that are defined by time intervals of North Korean nuclear weapons development. Nuclear weapons development also comprehends the acquisition of certain capabilities. As

mentioned, a state needs to go through specific steps to achieve an operational nuclear weapon, such as means of delivery and enriched plutonium or uranium, and control systems. Considering the goal of nuclear weapons development being nuclear deterrence, certain capabilities also signal different stages of development in North Korea`s case. Therefore, the phases also include the acquisition of specific capabilities such as short-range missiles, intermediate-range missiles, and ICMBs. These are needed in order to work towards a deterrence that targets North Korea`s adversaries.

3.4 Data Material and Empirics

A qualitative method is characterised by the data gathered and analysed (Grønmo, 2016, p. 22). The data material for this thesis is based on both qualitative and quantitative data. It is a qualitative study that relies on quantitative data from CSIS that have been organised into a suitable dataset for this analysis. Although process tracing is a qualitative method, it is not unusual to rely on quantitative information (Collier, 2011, p. 825).

3.4.1 Empirics on North Korean Provocations

The main empirics that will be assessed are all the provocations that North Korea has conducted between 1958-2020. North Korea`s military aggression will be based on the provocations that have been conducted towards South Korea and The U.S. This will provide an indicator of what effect nuclear weapons development has had on North Korea`s conventional aggressiveness towards South Korea. However, the frequency of provocations can produce misleading findings on its own. In the late 1960s, North Korea conducted many infiltrations towards South Korea. On its own, the number of these provocations would make it seem highly aggressive compared to other intervals of time. This time period was characterised by much aggression. However, other provocations that did not occur as frequently can also be considered signs of high levels of aggression. A few examples are political assassination attempts, or the recent bombing of the Joint Liaison Office in June 2020 (CSIS, 2020). In order to avoid such misleading findings, it will be fruitful to differentiate between types of provocations as they vary in severity and escalation potential. In turn, the context around the provocations conducted will also have to be assessed in order to interpret the aggressiveness in relation to nuclear weapons development.

CSIS has gathered all North Korean provocations conducted between 1958 to present time in a database. The CSIS database starts counting from 1958 because it is when the first provocation was documented after the Korean War in 1953 (CSIS, 2020). The main empirics for this analysis are based on this database. To cover the needs for this analysis I have used this information to organise a dataset that includes categories of provocations, under which leader they were conducted, where they took place, and who the provocations were aimed at. First, the provocations fall under eight different categories; Plane infringements (1); Vessel Infringement (2); Territorial infringement (3); Infiltration and Incursion (4); Armed Attacks (5); Political Assassination Attempts (6); Bombing (7); Nuclear and Missile Provocations (8).

Second, by adding a column with information on which leader was in charge during the provocations` occurrence, it allows me to examine other possible factors that may have had an effect on North Korea`s conventional aggression, aside from nuclear weapons development. As explained above, when using process tracing as a method, it is important to control for other possible explanations. This column of information allows me to discuss differences in leaders as a possible explanation in a separate discussion chapter. Third, one column with information on the aim of the provocation is added. The purpose of this is to grasp the intertwining relationship between North Korea, The U.S., and South Korea. Both the cooperation between South Korea and the U.S. and the two-fold hostility that North Korea holds against both. Lastly, a column with information on the location of the provocations compliments the "aim" column and helps interpret the aim of the provocations and its context.

I will elaborate on the selection of provocations and the choices that have been made in concerns to the dataset in the following chapter. I will also showcase how this dataset helps explain variation in North Korean conventional aggression and identify trends based on this information.

3.4.2 Empirics on Nuclear Weapons Development

In addition to empirics on North Korean provocations, information on the independent variable is needed. First, it is necessary to address the issue of finding information on a state`s nuclear weapons arsenal. In my case, I also need information on when the program started, when certain capabilities were introduced, and to some extent, operational. It is hard to find complete information on a state`s nuclear arsenal as it is vulnerable information from the state`s perspective. Therefore, we have to assume that some information is incomplete or are unavailable to the public. A "good enough" way of thinking is what should be pursued. The

possibility of lacking information should not prevent one from investigating such topics, but it is important to be transparent about the issue when doing so. In some cases, the available information is sufficient for finding causal inferences and correlations.

Despite North Korea`s nuclear arsenal being a topic that is hard to find complete information on, there are still ways to find out what capabilities it has and when they were acquired. Open Nuclear Network (ONN, 2020) is a program under One Earth Future that produces information on risks and threats concerning nuclear weapons. They use different tools to collect data, and then analyse them and publish articles on nuclear capabilities in different states. They collect data on nuclear threats from an open-source data platform called Datayo. By analysing characteristics from satellite photos, it is then possible to understand nuclear missiles and programs (ONN, n.d.). Based on this type of empirics, they have then produced publications on North Korean nuclear weapons and capabilities. A publication on North Korea`s capabilities will be used to locate at what point certain capabilities were introduced.

Aside from CSIS`s database, the dataset, and ONN`s publications, other empirics will be used to understand the historical context around the different time intervals. Information on economic status, diplomatic progress and downturns, as well as foreign dynamics like the fall of the Soviet Union, and American involvement on the peninsula are information that is needed.

3.5 Limitations of the Research Design

I argue the most suitable method for answering the research question in this thesis is by doing a case study and conducting process tracing. Process tracing is suitable because of the need to analyse empirics over a long time chronologically. There are strengths to using this method. However, there are limitations tied to the research design and the data material of this paper. I have briefly mentioned some of the limitations above. But in the following section, I will elaborate on how to work with those limitations and avoid possible pitfalls.

3.5.1 Limited Data on Nuclear Weapons

When it comes to nuclear weapons in general, which are seen as one of the most confidential information a state can have, there will be access limitations to the complete information on such as the full nuclear arsenal, capabilities of certain missiles, and the exact time of when the specific missiles and capabilities were operative.

As mentioned, Open Nuclear Network is a network that gathers information on state`s nuclear weapons based on satellite pictures and research to develop an understanding of the arsenals. Although it is important to be transparent on the fact that some of the information might be lacking, the best way to cope with this idea of incomplete information is to be transparent about this issue and base the conclusions on the available information.

3.5.2 Missing Information

Another way to cope with the lack of information and secrecy in this case, is to employ a larger set of observations. The dataset that is based on CSIS` database demands information in different aspects such as location and aim. However, some provocations miss information on either specific location or aim. Some of the provocations might have been indirectly aimed at South Korea and the U.S. through provocations towards Japan, for example. When there is missing information on either of the provocations, they are marked with "0" in the dataset.

However, there are also ways to compensate for missing information on this. Because the majority of the observations have complete information from the CSIS database, it helps make the trends and variation more robust and less vulnerable. It is less likely for six observations with missing information to have an effect on a pattern where 200 observations are involved than with four observations with missing information in a total of ten observations. The use of a greater dataset with many observations makes the issue of lacking information less vulnerable to erroneous conclusions. It is not a perfect scenario, but a way for the researcher to tackle the design`s limitations that are out of one`s control.

Another issue is that information on some of the provocations is only available in Korean. It is hard to track the specific information needed and navigate in large documents in a foreign language. What also follows from this is the ability to determine the exact time that a nuclear weapons program started. The second case is based on the beginning of a nuclear weapons program. This time phase is set to start in 1980. However, nuclear weapons talks have taken place before this, but there is no specific date to set as North Korea`s nuclear weapons pursuit. Based on the available information, I argue it is best to set the early 1980s as a starting point for nuclear weapons introduction. To avoid misperception, the second phase is therefore named "Reactors and technology".

3.5.3 Methodological Limitations of Process Tracing

There are limitations and challenges with process tracing too, as with any other method for research. With process tracing, its procedures are often carried out informally and without a high level of transparency. This is because this method often lacks systematisation of technique and explicitness in execution. The goal of Mahoney`s article is to encourage the more self-conscious and transparent use of this method in the future. The assumption is that explicit and rigorous application of process tracing can improve the quality of research (Mahoney, 2015, p. 201).

First of all, the method requires the researcher to reason logically when constructing and testing hypotheses. Knowledge of existing general relationships must be used (Mahoney, 2015, p. 201). Additionally, when using this method, it is important to control for alternative explanations (Halperin and Heath, 2017, p. 248), which will be done in a separate chapter after the analysis. The tests above and controlling for other possible factors will be key in overcoming the lack of transparency and structure in process tracing. I have explained some of the limitations with process tracing and measures to overcome them above.

4.0 Introduction to Analysis – Overview of Observations

After the Korean War ended in 1953, North Korea has conducted almost 300 provocations towards South Korea and the American military on the peninsula. Provocations involve aircraft attacks, vessel sinking, political assassination attempts, espionage, territorial infringements, and nuclear tests and missile launches. Although there have been periods of less aggressiveness and violence, provocations have persisted until today with a varying degree of severity and frequency (CSIS, 2020).

This chapter will provide a brief overview of these provocations and identify immediate trends in North Korea`s aggressiveness towards South Korea. Following the conventional provocations conducted in relation to North Korea`s nuclear weapons development will provide an indicator of what effect nuclear weapons development has had on North Korea`s aggressiveness towards South Korea. This will enable the analysis to identify changes in conventional trends as the nuclear weapons development goes on.

Creating graphs based on a dataset containing information on this will help present trends and patterns in North Korea`s military behaviour in accordance with nuclear weapons development. First, I will explain the roadmap of the dataset before I present data based on the respective phases of North Korea`s nuclear development.

4.1 Roadmap of the Dataset

4.1.1 CSIS Database on North Korean Provocations

The dataset for this analysis is based on information from a database compiled by CSIS. The database is a compilation of all North Korean provocations conducted since the end of the Korean War in 1953. The first documented provocation that occurred after the Korean War was in 1958. Therefore, the CSIS database covers provocations conducted between 1958 – 2021. Due to time limitations, this analysis and dataset is limited to 2020. The provocations come about in chronological order, with description of the events (CSIS, 2020).

4.1.2 Composition of the Dataset

To adapt the information to this analysis, I have added additional categories based on CSIS`s information. To do this, I started by organising eight categories. This is suitable for this analysis as it allows me to better grasp the variation in conventional provocations conducted. I will elaborate on these categories below. Second, I added a column that informs which leader was in charge of the specific provocations. This will provide valuable information on whether there is a difference in aggressiveness and strategy that can be traced back to leader characteristics. Similarly, a column with information on the aim of the provocations has been added. To clarify this, another column with the location of the events is also added. The purpose of this is not to exclude certain provocations in the analysis but rather to understand the events and contexts.

It is also important to address possible shortcomings of the available information in the CSIS database. Many incidents have complete information in terms of what the dataset demands. However, other incidents might lack information on the location of the provocations, a clear target, or a complementary description. There are multiple reasons for this. First, the CSIS database provides a short description of the incidents, often referred to additional sources. For some provocations, additional information is only provided in Korean, or not at all. Some documents are also not available. When there is a lack of complete information, the provocations are categorised after the best ability based on the information available.

The figures below are illustrations based on this dataset. There are some observations in the dataset that are not counted in the graphs. These are verbal declarations that do not fit in under conventional military provocations for this analysis. They are categorised in the dataset as "other" to avoid confusion. They have been included because they served a purpose in understanding the unfolding historical events. Another thing to address is that provocations that unfold over more than one day have been counted as one when making the graphs. This is because they should be understood as one operation that stretches over more than one day.

Additionally, some provocations could be placed in several categories. For example, espionage vessels that have attacked other vessels while on an espionage mission could be categorised as both infiltration and vessel infringements. In order to avoid one provocation from falling into several categories, I provide a more detailed mapping of what the specific categories include and exclude below. The best way to overcome this challenge is to be transparent in the categorisation and follow it continuously throughout the dataset.

4.1.3 Categorisation of Provocations

The provocations fall into eight categories. Analysing this variation in terms of frequency and types of incidents will be helpful in order to investigate trends and patterns of North Korean conventional military behaviour over time. I argue that categorising the different provocations will be relevant to its context. For example, a political assassination attempt will be perceived as a more severe infringement than territorial infringements expected to be taking place more frequently. Furthermore, the frequency of certain types of provocations conducted will arguably be meaningful in terms of patterns in North Korean conventional military strategy and focus. It will presumably also tell us valuable information about the development and advancement of military technology in North Korea before and after the nuclear program started. The categories are the following:

1. Plane Infringement

2. Vessel Infringement

3. Territorial Infringement

4. Infiltration and Incursion

5. Armed Attacks

6. Political Assassination Attempts

7. Bombing

8. Nuclear and Missile Provocations

Plane infringements include attacks, hijacking and seizures of aircraft. Naturally, vessel infringements include all types of infringements conducted towards vessels, such as sinking, attacks, and seizure. However, when vessels have been part of more extensive espionage and infiltration operations, or the emphasis is on these types of operations, the provocations are categorised as infiltration and incursions. The purpose of this is to capture the intention of the provocations conducted. Similarly, territorial infringements include border violations when infiltration and incursion are not emphasised as the intended operation. Territorial infringements do also include exchanges of fire when the shooting occurs due to border violations. Attacks that do *not* occur in direct relation to border violations are not included in this category.

Infiltration and incursion comprehend espionage and border violations when the intention is espionage and infiltration. It does also include shootings and attacks that happened as a result of infiltration and incursion operations. As mentioned above, armed attacks are attacks that do not occur in relation to infiltration and incursions. It excludes attacks where the intention was border violations or border violations that have resulted in an exchange of fire. There are few incidents of political assassination attempts. However, due to the violation that this action poses, it is placed in a separate category. Bombing concerns more significant attacks where conventional explosives have been used.

Lastly, missile and nuclear provocations fall under the same category. The purpose of this is to capture the development of strategic weapons. Even though missile launches, and missile tests are not necessarily considered nuclear provocations, many of the conducted missile tests are of missiles that have been perceived as means for delivery of nuclear warheads subsequently. Many of these missiles have later on been confirmed as nuclear-capable (ONN, 2020). Furthermore, missile provocations can be seen as part of developing the bomb. A state needs means of delivery for its nuclear warheads. Therefore, I argue that missile provocations are closely tied to nuclear provocations. Combining these two types of provocations will provide meaningful information on the evolution and transition from conventional weapons to strategic weapons technology. Including these capabilities in the dataset allows me to analyse conventional and strategic provocations in relation to one another.

4.1.4 Severity of Provocations

The categories are selected on an assumption that there are differences in severity, frequency, and escalation within the provocations. By escalation means that it is expected that certain types of provocations will have a higher risk of escalation than others. For example, political assassination is expected to have a higher risk of retaliation and further escalation of the conflict due to the severe incursion it poses to the adversary and its allies. On the other hand, infiltration and espionage have occurred frequently and continuously since the end of the war in 1953 (CSIS, 2020). This means that it is of a more expected character, which means that it is a less shocking event. In turn, this should also mean that there is a lower risk of escalation to a new level of conflict other than posing threats.

It would be difficult to range all categories based on the degree of severity as there are varying degrees of severity also within one category. However, it is possible to distinguish the severity to a certain extent. The idea is that infiltration and incursion, and territorial infringements occur frequently and have less of a shock-factor than other examples. Territorial infringements show to often lead to an exchange of fire and killing. Therefore, it is often considered a more severe provocation than infiltration and incursion, which is oftentimes intended to go by unnoticed. It is hard to range these two above one another, but generally speaking, territorial infringements are considered slightly more severe based on intentions and motives. Furthermore, vessel infringements are assumed to produce more significant consequences, and occur less frequently than the previous two. Plane infringements are often more severe in nature than vessel infringements. These four provocations are generally in the lower levels of severity, but there are exceptions.

On the other end of the scale are armed attacks that specifically intend to impose damage to the adversary. Bombing is used to attack in a larger scale and does therefore have a high severity character. Lastly, political assassination is a threat to the regime and has political motives. It is therefore considered high severity. Missile and nuclear provocations are hard to include as they are not counted as conventional on the same terms as the other seven categories. However, missile and nuclear provocations are considered to have a high possibility of escalation, and signals a different type of aggression. The categories should not be understood as a strict range from least severe to most severe. Instead, it is a guiding general understanding of the differences between the provocations due to a varying degree of severity also within the categories.

4.1.5 Phases for Investigating Variation in Provocations

The time period of North Korea`s provocations fall into four phases for investigation. The cases mirror North Korea`s nuclear weapons development. To uncover variation in conventional military behaviour along the line of this development, it is important to also assess the time prior to the development.

The cases include time-phases that comprehend these steps of development and capture the gradual acquisition of different nuclear capabilities. The purpose of this is to grasp variation in conventional aggression in relation to each step of the nuclear weapons development. This is based on the assumption that there will be a variance in conventional aggression in the respective phases. The first phase takes on the period before the nuclear program started, and

the time period is 1958-1979. The second phase is when technology and reactors for nuclear weapons start. The third phase reflects when the technology and reactors are taken a step further and the first nuclear weapons are acquired. Lastly, the fourth phase takes on the period from 2007-2020 when expanding and developing a nuclear arsenal was focused.

4.2 Observations of North Korea`s Aggressiveness from 1958-2020

We can tell from the overall variation that the provocations are exclusively conventional until 1984. Following the introduction of nuclear technology and the acquisition of the first nuclear weapons, missile and nuclear provocations increase while we see a gradual decrease in conventional provocations at the same time. Figure 3 below illustrates this trend from conventional provocations to nuclear and missile provocations, while figure 1 illustrates the frequency of the different provocations in the four investigation cases. After the first nuclear test was performed in 2006, there was a rapid increase in nuclear and missile provocations while barely any conventional provocations. This is best illustrated in Figure 2 below (CSIS, 2020).

However, there is also an overlap in 1990-2005. Different types of conventional provocations are conducted in this time period, while the starting phase of the nuclear and missile provocations begin. Additionally, infiltration and incursions are at its second-highest frequency in between this gap. This overlap starts at the same time as the fall of the Soviet Union. Figure 1 illustrates the chronological unfolding of provocations that have been conducted from 1958 to 2020. The Nuclear weapon`s gradual takeover is prominent. This does also seem to replace conventional provocations, where we saw the first missile provocation in 1984. Followed by a decrease in all types of provocations in the late 80s, there is an increase in conventional provocations and nuclear\missile provocations (CSIS, 2020).
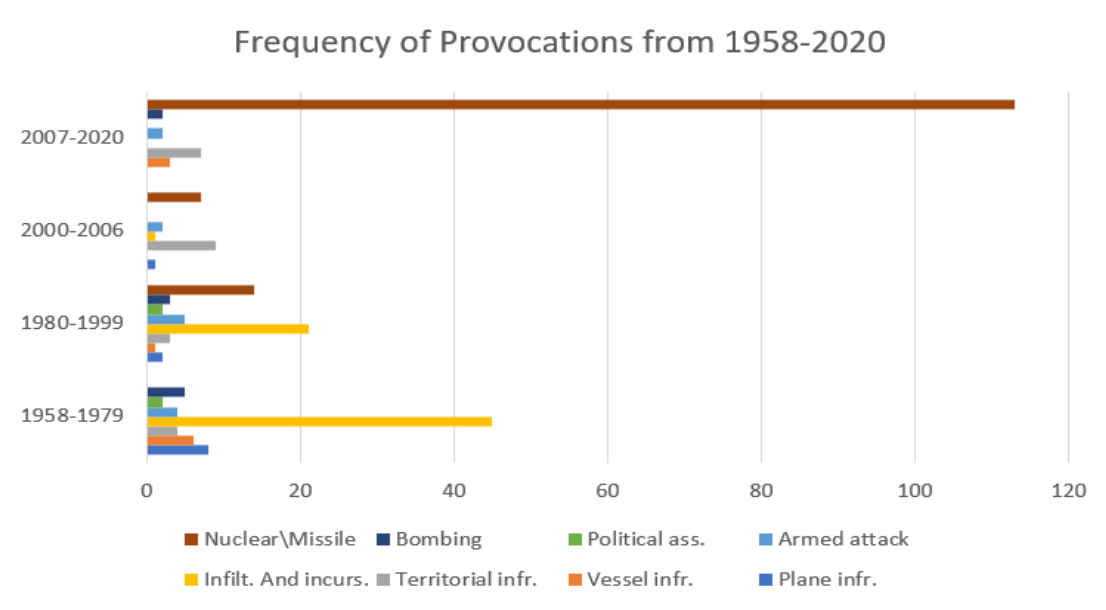
Figure 1: Illustration of North Korean provocations from 1958 to 2020 (CSIS, 2020)
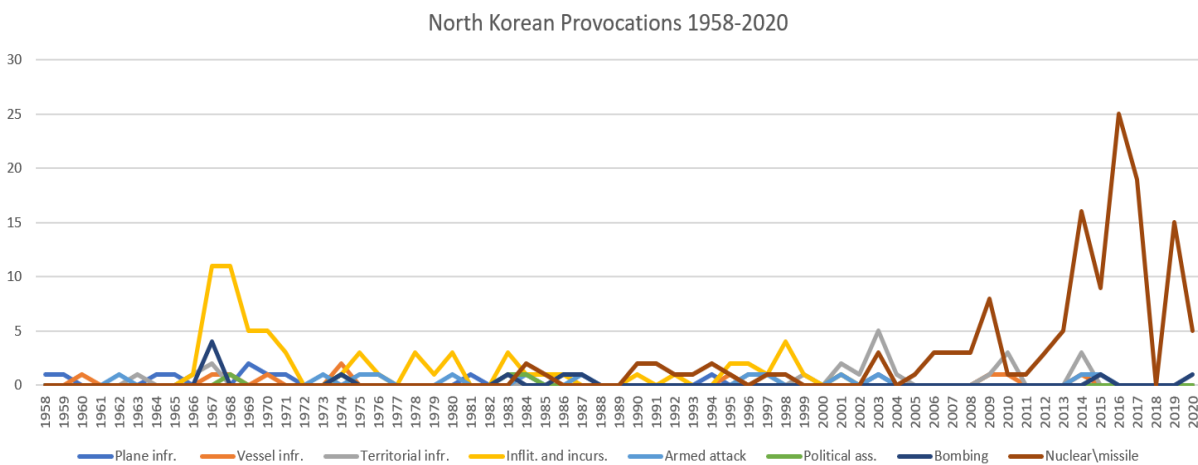
Figure 2: North Korean provocations from 1958 to 2020 in chronological order (CSIS, 2020)
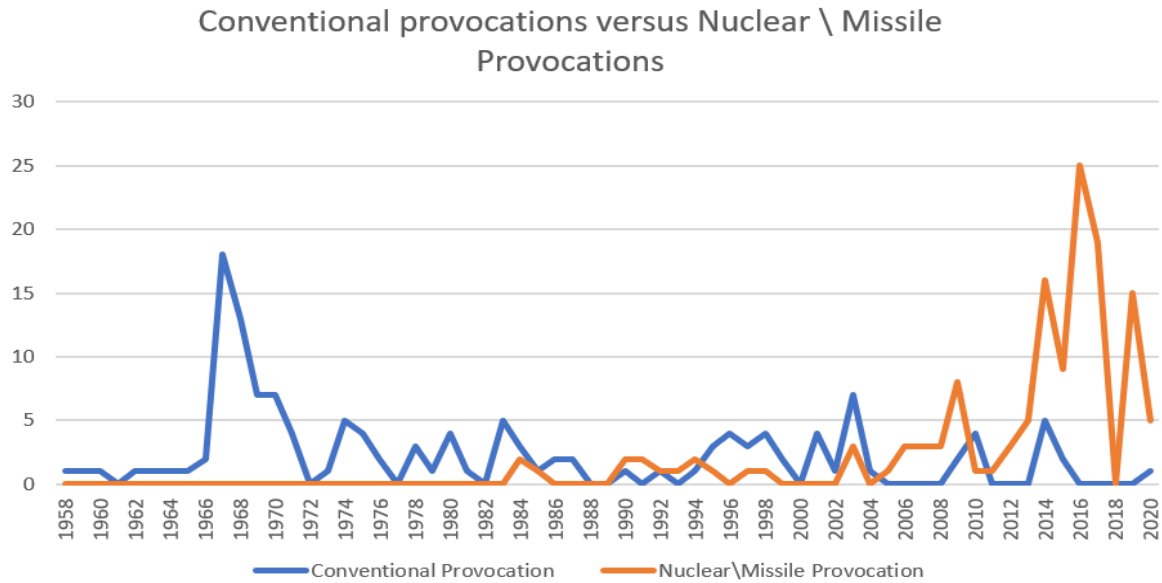
Figure 3: North Korean conventional provocations and nuclear \ missile provocations (CSIS, 2020)

Infiltration and incursion are the type of conventional provocation that occur most frequently. However, between 1966-1972 notably many infiltrations and incursions to South Korea are conducted. Infiltration and incursions were the dominating provocations in both the pre-program phase and the reactors and technology phase. Although there are a few of this type of provocation in between 1980-1999, it was the dominating type of provocation until missiles and nuclear provocations took over in 2000 (CSIS, 2020).

Vessel infringements were the third most frequent provocation conducted in the first phase. This provocation occurs drastically rarer in the second phase and is not conducted at all in the third phase. However, during the fourth phase, which is dominated by nuclear and missiles provocations, it is the third most conducted conventional provocation. Bombing, which is considered a more severe provocation than the previous two, also occurs less frequently. This type of provocation also peaks in the first phase, decreases in the second, is absent in the third, and then increases slightly in the fourth. Political assassination attempts have only occurred in the first and second phase (CSIS, 2020).

Territorial provocations have remained relatively stable throughout the phases. What is worth mentioning is that it peaks during the third phase. More specifically between 2001-2004. All the other conventional provocations peaked during phase one or two before nuclear weapons were acquired. Unlike territorial infringement, plane infringement peaked during the first phase. It was also the second most conducted provocation between 1958-1979. It decreases drastically in the second phase and does not occur in the last phase. On the other hand, armed attacks occur relatively frequently in the first two phases, but does also occur in a low frequency in both the third and fourth phase (CSIS, 2020).

Logically, nuclear and missile provocations do not occur during the first phase. This is because this phase is selected based on the fact that the nuclear program had not started yet. It increases drastically in 1980-1999, when it is also the second most frequent provocation conducted. These provocations, however, are missile launches and not nuclear tests. In 2000-2006 it decreased, but at the same time, the first nuclear tests were conducted. In the last phase, there is a dramatic increase in missile and nuclear provocations.

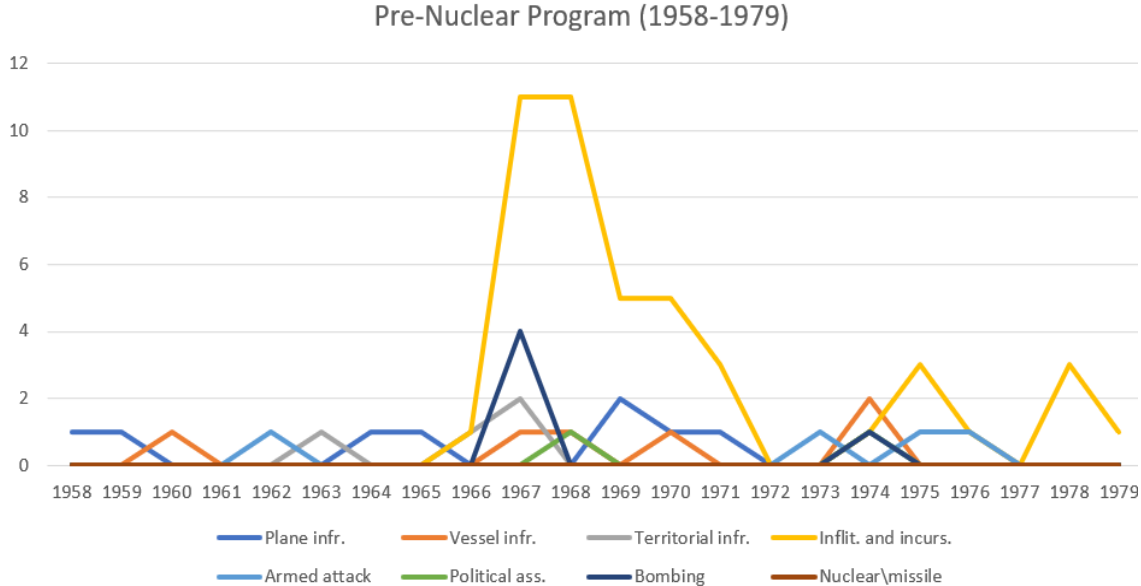**4.2.1 Pre-Nuclear Program (1958-2020)**

Figure 4: All provocations conducted during the first phase: Pre-Nuclear Program (CSIS, 2020)
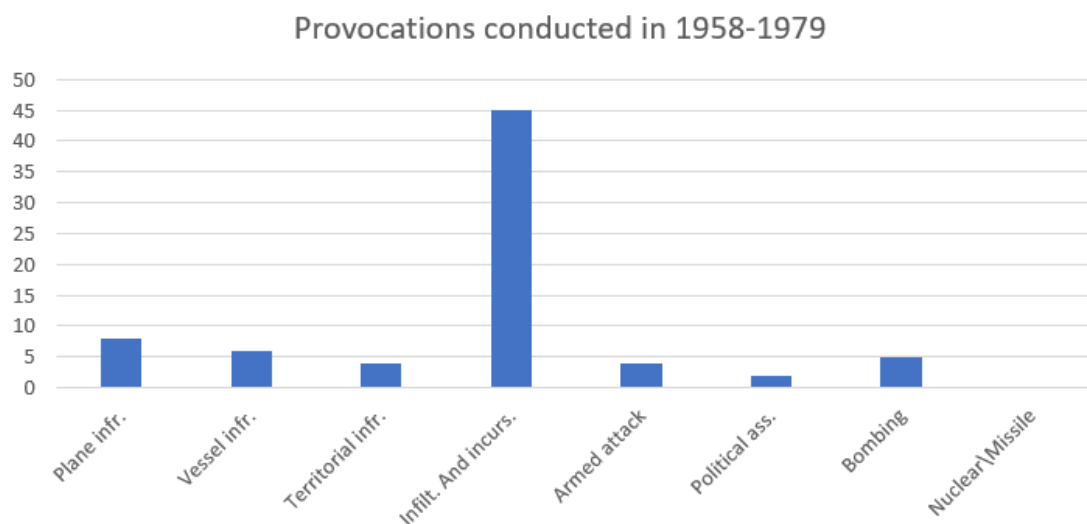
Figure 5: Frequency of provocations conducted during the first phase: Pre-Nuclear Program (CSIS, 2020)

The Korean War ended in 1953, but two decades of unease and near conflict followed. Kim Il-Sung remained risk-acceptant and eager to provoke both South Korea and the U.S. During this time period, a prominent characteristic is the high frequency of infiltration incursions across the Inter-Korean demarcation zone. According to Panda, this was attempts at punishing the U.S. for its continued involvement on the Peninsula (Panda, 2020, p. 39). This period covers the time before North Korea started the quest for nuclear weapons development.

As shown in figure 5, multiple conventional provocations were conducted in the 1960s, including a political assassination attempt, plane incursion, and vessel incursions. Examples of this are: Korean air force fighter shot and damaged a reconnaissance aircraft in 1965, conducted a seizure of a USS Pueblo where the crew was taken back to North Korea, assassination attempt at President Park Chung-Hee at the presidential residence in Seoul in 1968, and a successful shooting on an American aircraft (CSIS, 2020; Panda, 2020). As shown in figure 4, the situation softened by 1970 but after the murder of two U.S. soldiers in the Joint Security Area in 1976, the two Koreas faced an increase in tensions. Up until the 80s, these provocations still took place, but to a limited extent. This was also the beginning of North Korea`s nuclear weapons development (CSIS, 2020).

From 1958-1970, more than 20 provocations categorised as infiltration and incursion was conducted by North Korea. This type of provocation prevailed after 1970, but to a lesser extent (CSIS, 2020). We can tell from the figures above that multiple types of conventional provocations were conducted during this time gap. The highest number of infiltration and

incursion provocations were conducted during this period, and bombing and plane infringement do also stand out as frequent events.

4.2.2 Reactors and Technology (1980-1999)
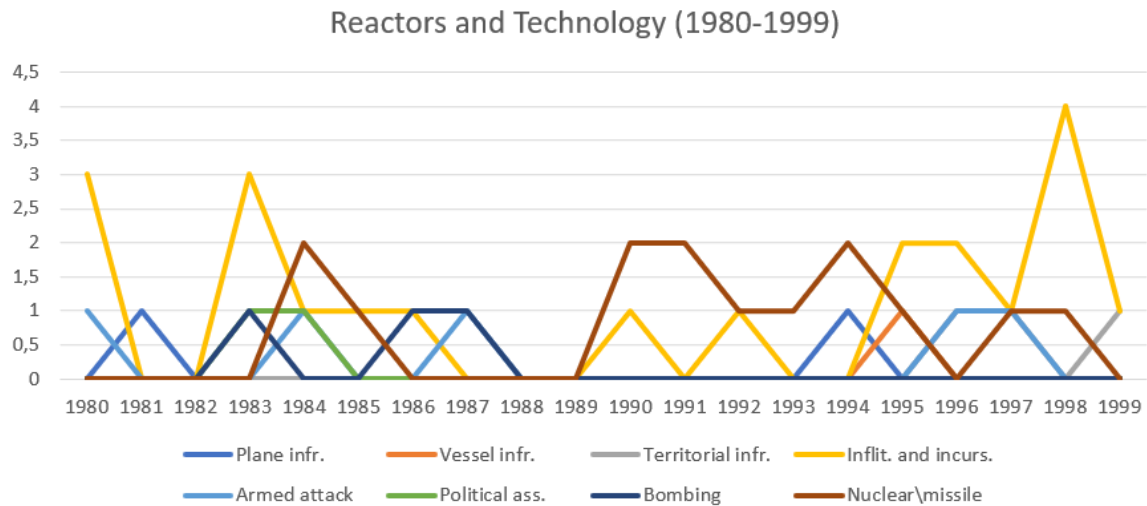
Figure 6: All North Korean provocations during the second phase: Reactors and technology (CSIS, 2020)
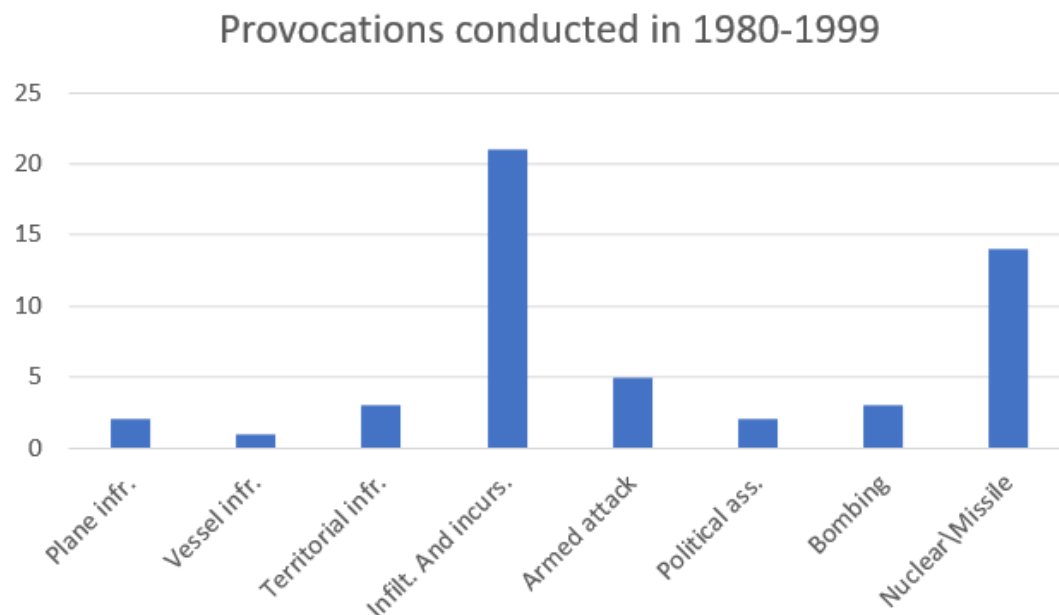
Figure 7: Frequency of provocations conducted during the second phase: Reactors and Technology (CSIS, 2020)

The reactors and technology phase from 1980 to 1999 represents the time the nuclear weapons program was introduced. In the beginning of this phase, provocations such as infiltration, plane infringement and bombing took place, but in a smaller scale than in the decade before. What is also different is that the first missile provocations took place in the early 80s (see figure 6). North Korea launched short-range ballistic missiles twice in 1984, and once in 1985 (CSIS, 2020). These missiles are called Hwasong-5 and have later on been considered nuclear-capable (ONN, 2020).

A note to make is that there are fewer conventional provocations, and more missile provocations in this second phase. Figure 7 illustrates the frequency of all the provocations conducted during this phase. In the first half of the 90s, and Kim Il-Sung`s last years as the leader of North Korea, there were even fewer non-strategic conventional provocations, but the missile provocations go on. When Kim-Jong Il became the leader, there was a relatively high increase in infiltration and incursion provocations, and armed attacks. However, the missile launches kept going. Despite this increase in missile provocations, there is, in general, a decrease in provocations (CSIS, 2020).

In an attempt to prevent North Korea from becoming a nuclear power, the U.S. and South Korea took an interest in North Korea`s aspiration to produce nuclear weapons in the early 1990s. The period is also described as a time of significant diplomatic progress. At the same time, North Korea lost its biggest ally with the fall of the Soviet Union. This resulted in stagnation in North Korea`s economy. At the same time South Korea had a rapid industrialisation with great exponential growth (Panda, 2020, p. 41). The economic dynamics between the two Koreas were shifting. North Korea`s conventional capabilities stagnated in the 1990s (Albert, 2020).

4.2.3 The First Acquisition of Nuclear Weapons (2000-2006)
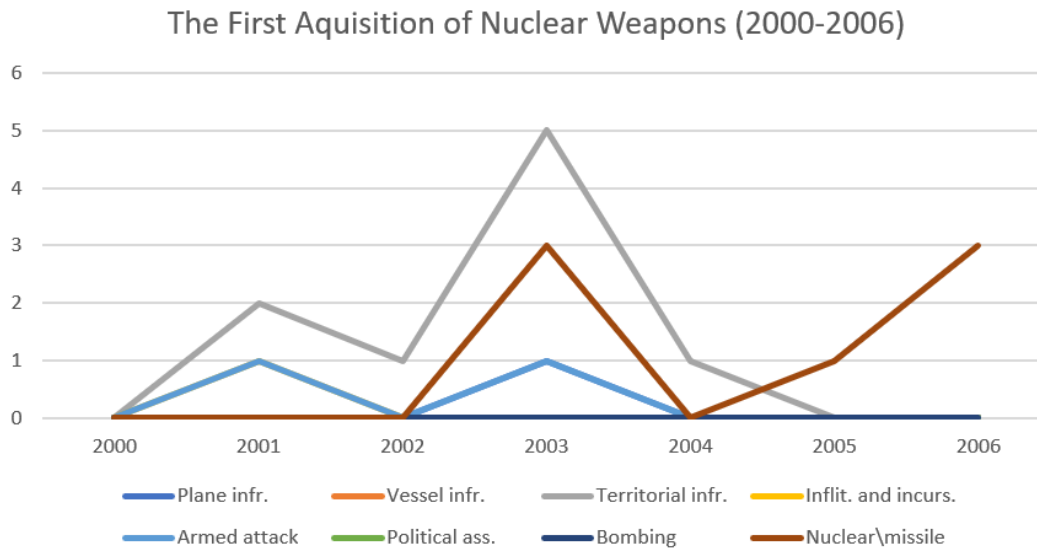
Figure 8: All North Korean provocations conducted during the third phase: The First Acquisition of Nuclear Weapons (CSIS, 2020)
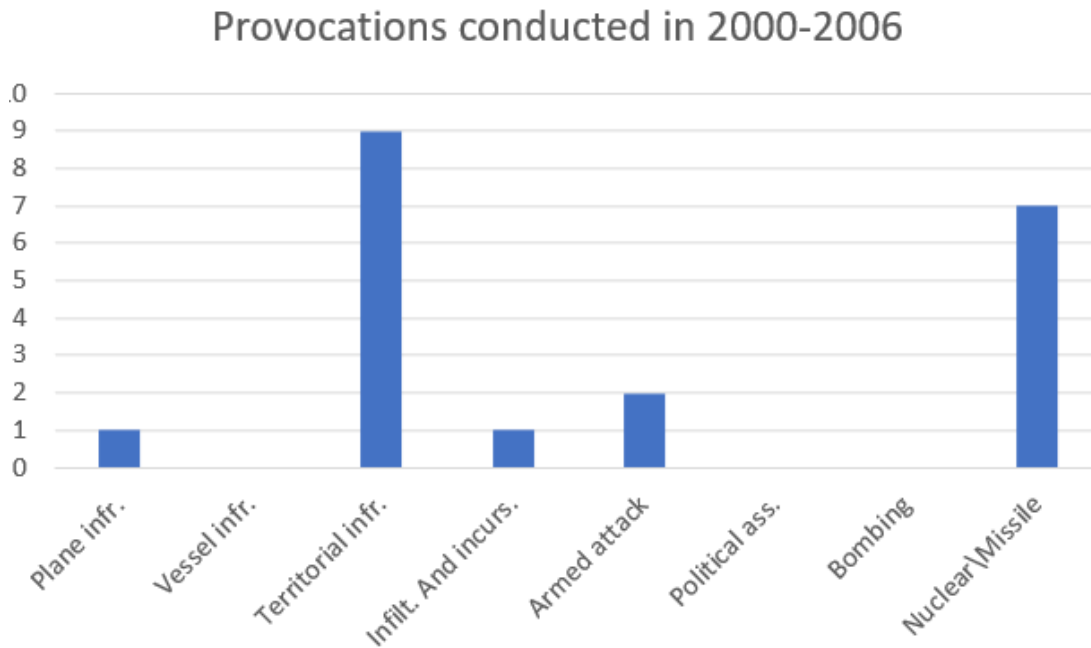
Figure 9: Frequency of provocations conducted during the third phase: The First Acquisition of Nuclear Weapons (CSIS, 2020)

In the phase of reactors and technology from 2000 to 2006 there was an increase in missile provocations. As shown in figure 8; three missile launches were conducted in 2003, one in 2005, and two in 2006. In addition to this, North Korea launched its first nuclear test in 2006 (CSIS, 2020). Figure 9 shows that there is little variety in the conventional provocations conducted between 2000 and 2006. However, there is a dramatic increase in territorial provocations.

In 2003, North Korea committed to reviving the nuclear operations in Yongbyon that had been suspended since 1994 with the Agreed Framework. Additionally, North Korea also left the NPT. With the end of this agreement, U.S.-North Korean relations were spiralling back to crisis. Pyongyang continued to make statements underscoring that it could not be dissuaded from its commitment to breaking out as a nuclear power and that U.S. behaviour had provoked this path (Panda, 2020, p. 54). This was a time that North Korea perceived its sovereignty as threatened by the U.S, and any attempt at invasion or regime change would be met with the use of nuclear weapons (Panda, 2020, p. 54). The worsened relationship with the U.S. was used as an argument for creating more reactors, and the first nuclear test came in 2006 (CSIS, 2020).

4.2.4 Developing a Nuclear Arsenal (2007-2020)
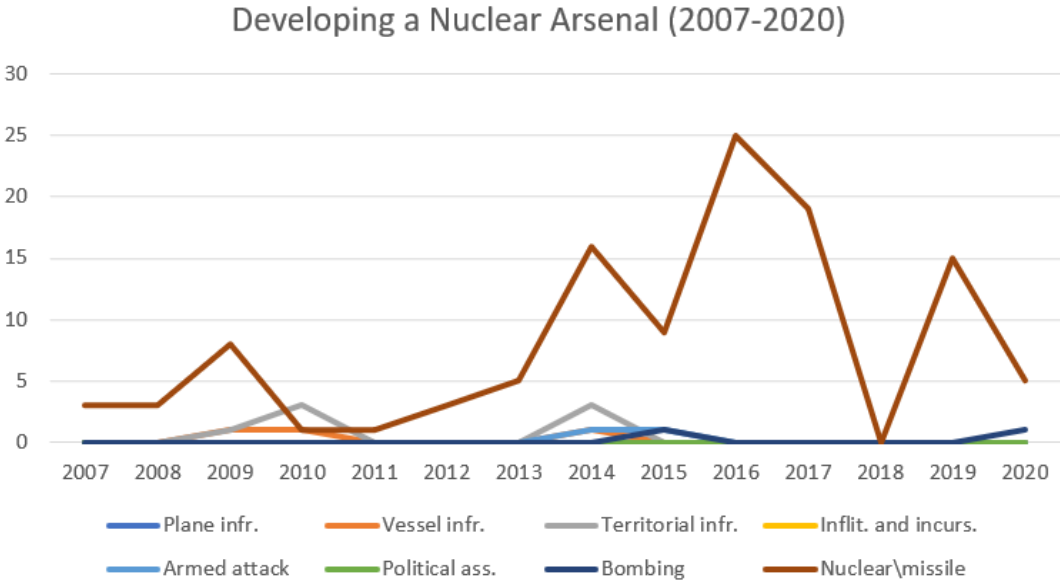
Figure 10: All North Korean provocations conducted during the fourth phase: Developing a Nuclear Arsenal (CSIS, 2020)

Provocations conducted in 2007-2020
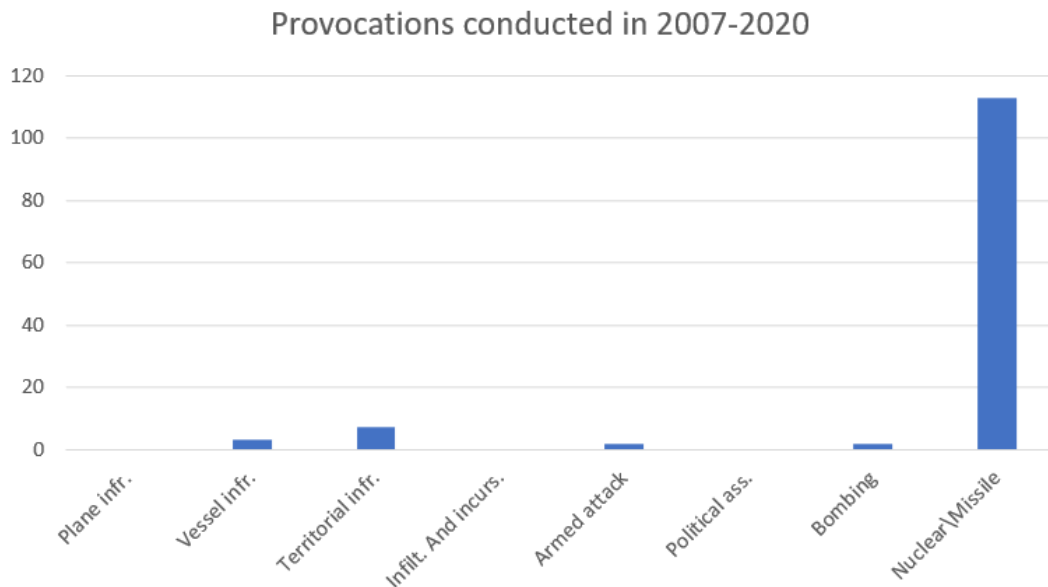
Figure 11: Frequency of provocations conducted during the fourth phase: Developing a Nuclear Arsenal (CSIS, 2020)

From 2007 to 2020, North Korea developed and tested multiple nuclear-capable missiles. For the first time since the previous Inter-Korean summit in 2000, the South Korean President met with Kim Jong-Il in 2007. Only a year after, North Korea did not want to negotiate with the U.S., and it conducted a second nuclear test. The relationship worsened just before Kim Jong-Un was announced his father`s successor (Panda, 2020, p. 61). During this time, there was a dramatic increase in missile and nuclear provocations. This is illustrated in figure 10. Figure 11 shows that between 2007-2020, 113 missile and nuclear provocations combined were conducted. Compared to this, there were less than 20 conventional provocations conducted (CSIS, 2020).

Aside from these conventional provocations, missile and nuclear capabilities seem to have replaced the conventional ones. Drawing on the argument that North Korea has not invested in advancing its technology on conventional capabilities, North Korea might have used nuclear weapons as compensation for outdated capabilities. Or it might have relied more on nuclear weapons by perceiving this as means for securing the regime. The following chapter will seek to explain the trends presented in this chapter.

5.0 Analysis

5.1 North Korean Military Aggression Explained

What Panda and Narang refer to when speaking of a permanent brinkmanship strategy is that North Korea remains very risk acceptant by pushing the limits close to a nuclear escalation both in peacetime and in crisis. According to them, Kim Jong-Un calculates that a conventional invasion by the U.S. and its allies is unthinkable. The logic behind this is the great risk of uncontrollable escalation past the nuclear threshold that the U.S. would have to take. Kim would posture his conventional forces and keep nuclear capabilities that can reach American territory as a backup. The nuclear capabilities that could reach American territory is what he calculates as a deterrent preventing the U.S. from risking escalation (Narang and Panda, 2020).

Pursuing a brinkmanship strategy can contribute to explaining why multiple conventional provocations have been conducted in the last decades. However, these provocations took place also before North Korea started its nuclear weapons program in the 80s. Over time, there have been large oscillations in these conventional provocations (CSIS, 2020), and multiple factors might have affected both increases and decreases in provocations.

Kim Jong-Un has stated that survival is the top priority of his regime. Cha and Kang argue that this posture is not about North Korea committing to a strategy that would lead to a U.S.-South Korean intervention followed by a collapse. The strategy is instead rationalised by using first-strike as the only option. This would be perceived as the best possible option, despite knowing that an unintended consequence is regime collapse. In sum, a strike could be perceived as rational even when there is no hope of victory (Cha and Kang, 2018, p. 18). The motivation is based on fear rather than aggression. The conventional inferiority to South Korea has been clear since the 1990s. This salient deficit in conventional capabilities vis-à-vis South Korea raises anticipatory fears of extinction through absorption in the eyes of North Korea (Cha and Kang, 2018, p. 20.

North Korean nuclear weapons are used to pose as deterrence to its adversaries. The current arsenal should prevent its adversaries from harming the regime (Panda, 2020, p. 34). The deterrence that the nuclear weapons provide is seen as the key to survival.

In short, Kim`s project is to ensure his self-reliant survival, and central to this strategic vision is the perfection of a robust, diverse, and sufficiently large nuclear force, as well as the augmentation of North Korea`s status on the international stage (Panda, 2020, P. 31).

In terms of North Korea, Panda brings up pessimist explanations about North Korea`s aggressiveness after nuclear acquisition. The pessimist explanations assume North Korea`s goal is reunification, and that nuclear acquisition should generate more aggression towards South Korea (Panda, 2020, p. 27). However, the observations on North Korea`s aggressiveness from 1958-2020 does not indicate an increase in conventional aggression. Panda also mentions how the realisation of the nuclear deterrent has made North Korean provocations less frequent. Questions as to why the provocations occur less frequently after nuclear acquisition arises.

In this chapter, I will investigate the trends of conventional aggressiveness in relation to the four stages of North Korean nuclear weapons development. By investigating all the provocation in its context of nuclear progression, I will be able to discuss how nuclear weapons development has affected conventional aggression. Using process tracing will enable me to identify specific events and evidence in chronological order to discuss the relations between nuclear weapons progression and conventional aggressiveness. The graphs based on the dataset helps present trends and patterns in North Korea`s military behaviour in accordance with nuclear weapons development. The analysis seeks to explain these trends.

I will start by examining the pre-nuclear program phase. The most important purpose of this section is to identify the conventional behaviour before a nuclear weapons program was taking form. Next, I will examine the observations on conventional provocations in a time where the pursuit of nuclear weapons is taking form. This will tell me if there is a change in strategy and behaviour compared to the previous phase. In the third section, I will discuss the implications of the first nuclear acquisition on conventional aggressiveness. In the fourth and last section, I will take on the time where a nuclear arsenal is developing, and explain the change from conventional to nuclear and missile aggression.

5.2 Pre-Nuclear Program: Two conventional Koreas

When discussing how nuclear weapons can influence a state`s military behaviour, it is essential to look at the starting point. In order to uncover the changes that nuclear weapons have generated, we need to look at the foreign policy and military behaviour prior to the nuclear weapons program of North Korea. The purpose of this chapter is to establish a starting point for the analysis of North Korea`s military behaviour over time. In order to uncover change or variation in the conventional military behaviour in accordance with nuclear weapons development, it is crucial to find the point of time before this variable is introduced. The beginning of the nuclear program started in the early 1980s (Cha and Kang, 2018, p. 2). That means that the time period after the Korean War to the 1980s will be the starting point for establishing a pattern of conventional aggression before nuclear weapons were introduced. This section investigates the pre-nuclear program phase from 1958 to 1979.

There are a few reasons to expect a change in conventional aggression from before to after the nuclear weapons program. First, a new set of military capabilities is likely to have an impact on the strategy of deterrence in itself. This is tied to the idea that conventional deterrence differs from nuclear deterrence (Wirtz, 2018). Second is the discussion of how nuclear weapons states change after nuclear acquisition. Third, the development of South Korea`s conventional capabilities and the discussion on how the lines between nuclear weapons and conventional weapons are becoming blurrier. To investigate a change in North Korea`s behaviour relative to this, we need to look at the time before this development.

5.2.1 A conventional North Korea and the Cold War

The pre-nuclear phase from 1958-1979 is characterised by frequent conventional provocations of all types and high tensions between the two Koreas. Both the Soviet Union and the U.S. were involved in the Korean peninsula after the Korean War. A good representation of the Soviet-North Korean relations is the great support that North Korea received from the Soviet Union prior to the Korean War. This support covered loans to purchase civilian and military goods, infrastructure between the two countries to establish bilateral relations, and economic aid (Kraus, 2020). Additionally, China was great support for North Korea after the war. There were tensions between Soviet and China in terms of befriending North Korea. That meant that Pyongyang had to walk the fine line between the two. Despite these tensions, North Korea benefitted from both of these relations (Xiaohe, 2010, p. 178; Kang, 2003, p. 306).

Economically speaking, North Korea benefitted especially well from Soviet support and bilateral relations at this time. Its economy relied heavily on Soviet support, both in terms of trade and survival, but also for the funding of the military. Arguably this also made it possible for Pyongyang to pursue these types of provocations against South Korea. The Soviet funding concerned energy supplies, agricultural inputs and manufactured goods. However, this also meant that North Korea`s economy became heavily dependent on Soviet support, and it was extremely vulnerable to independence (Habib, 2011, p. 149). This vulnerability was not to be exposed until the 90s when the Soviet Union collapsed, which I will return to in the following section. But as for the 1960s, this support helped spark economic growth and development that relied on heavy industry (Habib, 2011, p. 150). The rehabilitation from the war succeeded during this time but had a few ups and downs until the 80s (Habib, 2011, p. 150).

At the same time as North Korea benefitted from economic support from the Soviet Union and China, South Korea started to have political troubles. The early 60s gave North Korea the advantage on the Korean peninsula. In 1960 and 1961, South Korea faced problems with their president Syngman Rhee who had a heavy-handed policy, and large-scale riots occurred that forced the president to step down. Eventually, this resulted in Park Chung Hee`s military coup. In turn, this political chaos provided North Korea with the opportunity to pursue its reunification campaign (Xiaohe, 2010, p. 181). At the same time as this was going on, U.S.-South Korean relations were further consolidated with the Economic and Technical Agreement. This was an agreement in which South Korea agreed to contribute more to the alliance (Xiaohe, 2010, p. 182). This adds to the threat for North Korea during the time. We know that diplomatic relations and the American presence on the Korean peninsula have provoked North Korea multiple times since 1958. However, during this time, North Korea still had a different kind of support from the Soviet Union that it did not have in the last two phases of this analysis.

5.2.2 The Second Korean War – A Risk Acceptant North Korea

An important issue to address when speaking of the dynamics and context of the pre-nuclear program phase is the drastic increase in provocations starting in 1966. Provocations in 1966 were largely dominated by infiltration and incursion. These years of frequent provocations has been referred to as the second Korean War. The unfolding events from 1966 to 1969 are not recognised as a formal war, but scholars have used the term to refer to the late 1960s as so. The second Korean War as a term needs to be addressed as it contributes to explaining why North Korea conducted so many conventional provocations at this time (Lerner, 2018, p. 76).

As shown in figure 4 below, there is a sudden increase in provocations conducted in 1966 relative to earlier years within the time period. Within the years of the second Korean War, four bombing does also occur, which is a severe provocation. Additionally, all four of the bombings happened the same year, in 1967. There was also a political assassination attempt where North Korea conducted a big infiltration operation to kill President Park Chung Hee in 1968. (CSIS, 2020).
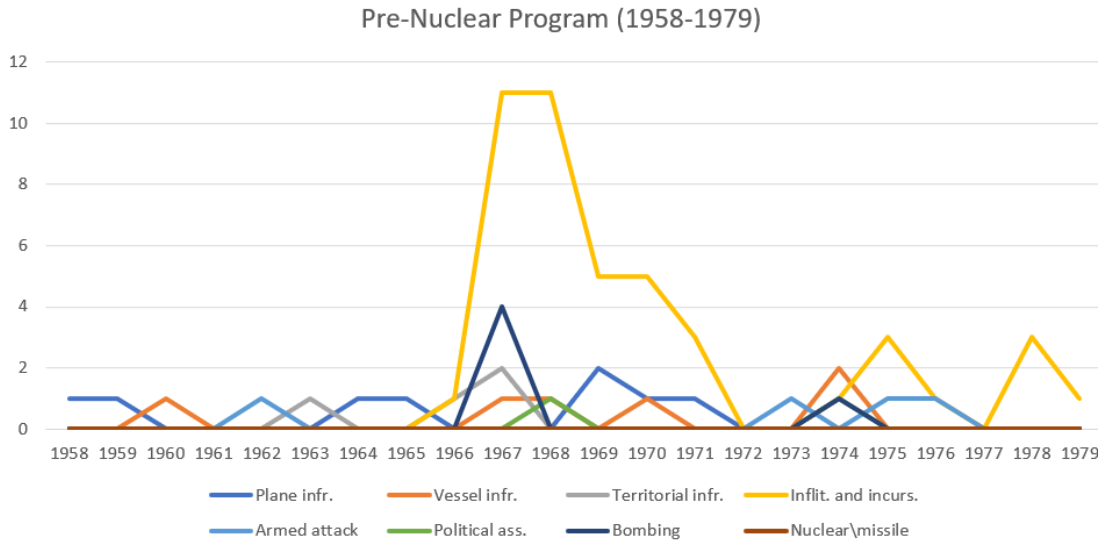
Figure 4: All provocations conducted during the first phase: Pre-Nuclear Program (CSIS, 2020)

The actions of the late 1960s signal a very risk acceptant North Korea. To illustrate the rapid increase in conventional aggressiveness: 40 provocations were conducted in total from 1966-1969. That is equal to 40 provocations in four years. By contrast: only seven provocations were conducted in the four years before 1966; see table 3 below (CSIS, 2020). Why did North Korea all of a sudden become significantly more aggressive? Contemporary evidence from the communist block suggests that North Korea was the aggressor in the second Korean war. Mitchell Lerner (2018) provided a discussion of the new evidence from the North Korean policy during the time, based on evidence from the communist bloc nations.

Time span:	Provocations
Before the Second Korean War (1958-1965)	7
The Second Korean War (1966-1969)	40
Post Second Korean War (1970-1979)	27

Table 3: North Korean provocations before, during, and after the second Korean War (CSIS, 2020)

Lerner presents multiple possible explanations of North Korea`s motives for the aggressiveness. One explanation is that North Korea was aggressive due to defensiveness. The behaviour is therefore seen as a response to increased South Korean and American provocations. Another is that Kim-Il Sung was seeking to destabilise the South. Based on this new evidence, he suggests that the explanation lies in the domestic changes in the economy and politics within North Korea (Lerner, 2013, p. 76-77).

Figure 4 also illustrates a slight decrease in the early 70s. The decrease in the 70s can be explained by diplomatic ease. Panda explains how Kim Il-Sung`s approach softened after American President Nixon had an opening to China. However, this did not last for long; In 1976, North Korea killed two U.S. soldiers in the Joint Security Area, and tensions rose again (Panda, 2020, p. 40). These actions are an exemplification of how the American and South Korean relations fuel North Korean insecurities. The U.S.-South Korean joint military exercises also showcase this effect. The inability to fully understand American and South Korean intentions sparks North Korean insecurities. Pyongyang fears that the exercises could be used to initiate a pre-emptive war under otherwise peaceful conditions (Panda, 2020, p. 90). I will get more into the South Korean-U.S. relationship`s effect on North Korean aggression in a discussion chapter after the analysis.

5.2.3 Conventional Aggression

Looking at the observations and context around this time period, what do they tell us, and how can we explain the very risk acceptant behaviour of North Korea? As established above, the pre-nuclear program phase includes frequent provocations and a wide variety of provocation categories. Infiltrations and incursions stand out as a frequent type of event throughout the whole phase. There were also two attempts at political assassination and four

bombings, which are both severe provocations. First, it signals a strong aggressiveness, but also because it is expected to provoke further tensions in the relationship between the two.

In addition to the general trends in the time between 1958-1979, there is a variation within this phase itself. Before the second Korean War, there were relatively few provocations. The majority of provocations occurred during the second Korean War. The aggression decreases by the end of the pre-nuclear program phase, but still stays at a relatively high level of aggression. A simple explanation of the North Korean aggression pattern is that war is expensive, and military expenses are needed to behave aggressively. But as the Soviet Union provided North Korea with economic and military support, it benefitted from having the advantage on the Korean peninsula in this phase. In turn, this might have facilitated the aggressive strategy in 1966-1969. The logic of how economical support might facilitate military aggression can also be reversed and explain a decrease in aggression when the economy deteriorates. In the 1970s, when North Korea started to have economic problems, conventional aggression also decreased.

5.2.4 Conventional Deterrence – A Threatened State

As explained in the theory chapter, the military capabilities available to a state provides it with certain strategy options. A lack of nuclear weapons means that we can only speak of conventional deterrence in terms of North Korea`s behaviour from 1958-1979. Can a conventional deterrence strategy explain the aggressive behaviour? Conventional deterrence differs from nuclear deterrence as it gives a state a different set of tools to deter its adversaries (Wirtz, 2018).

Considering the Korean War being fresh in mind and the presence of American troops on the Korean peninsula posing a great threat to North Korea, it is evident that it would seek to deter this pair of allies. North Korea was not just aiming its aggression against South Korea, but also the U.S. There are multiple examples of this. One of the most noteworthy examples is a vessel infringement in 1968, when North Korea captured a USS Pueblo, an American intelligence ship, where 82 of the crewmen were held prisoned and one killed (CSIS, 2020). Together with the political assassination attempt of President Park Chung Hee, this manifests a peak in North Korea`s aggressiveness during this phase.

One of the greatest differences between conventional and nuclear deterrence is the contestability of conventional deterrence. Nuclear weapons are largely uncontestable because they eliminate the hopes of a positive war outcome (Wirtz, 2018, p. 58). This means that in

order for Pyongyang to deter South Korea and the U.S, it would need to work on the credibility of the threat that it can pose to its adversaries. Credibility is closely tied to capabilities. For a deterrent to be credible, it needs capabilities that can execute the threat in question. As explained above, with the support from the Soviet Union and the political chaos in South Korea in the 1960s, North Korea had the military advantage over the South. The actions performed by North Korea between 1958-1966 might indicate a deterrence by punishment strategy, where the idea is to inflict costs on an opponent until compliance is achieved (Wirtz, 2018, p. 68). An example of this is the capture of the American USS Pueblo. The vessel was in international waters, but North Korea used this as an excuse to attack (Lerner, 2018, p. 81).

These actions indicate a deterrence by punishment. However, the constant provocations that were conducted can also be seen as a part of North Korea`s strategy to prove the credibility of its threats, a sort of demonstration of power and capability. Deterrence by punishment is a strategy of expressing the persistence or escalation when an unwanted action is conducted (Wirtz, 2018, p. 68). In an example like this, it would be logical to think that North Korea would commit to decisive punishment actions to demonstrate the capabilities and motivation for its survival. We also know that North Korea was strongly opposed to the American presence on the peninsula.

The frequent provocations conducted within 1958-1979 that sustained over time is also compatible with the idea that deterrence by punishment is about the running contest of credibility. "Those making punishment threats are actually promising to engage in a test of wills to determine who is best at bearing the costs entailed in securing their objectives" (Wirtz, 2018, p. 69). Deterrence by denial might also be discussed in terms of deterring territorial incursions. This would concern North Korea`s actions to deter South Korea and the U.S. from conducting territorial incursions to North Korea. In practice, this would then concern the heavily armed borders to signal the costs of trying to achieve this objective (Wirtz, 2018, p. 70).

On the other hand, the newer evidence that Lerner used to discuss North Korea`s behaviour show North Korea was the more aggressive part (Lerner, 2018). This indicates more of a deterrence by punishment strategy, where small incursions, or perceptions of incursions, are heavily punished. Which also demonstrates commitment and credibility.

Another available option for non-nuclear weapons states to pursue deterrence, is by punishing challengers by hitting strategic targets such as leadership nodes and industrial targets that are crucial to its adversary. The explanation is that conventional weapons have become more accurate with time (Roehrig, 2017a, p. 16). North Korea`s conventional capabilities did not have the power and accuracy of modern conventional weapons in 1958-1979. However, Pyongyang did, or attempted to, attack crucial targets to South Korea and the U.S. In 1962, it attacked a UN observation post, and conducted a bombing on U.S. army barracks in the DMZ in 1967. The two political assassination attempts are especially good examples of attacking crucial targets of its adversary. Additionally, there was another political assassination attempt at President Park Chung Hee in 1974 on South Korea`s national liberation day, where his wife was killed instead (CSIS, 2020).

5.2.5 Conventional Brinkmanship as a Strategy of Deterrence?

The severe incursions and actions explained above signal an aggressive military behaviour by demonstrating determination and credibility as deterrence. Further, this seems to be rooted in the advantageous conventional situation that North Korea found itself in at this time, with the economic support of the Soviet Union. However, this risky aggressiveness can also be explained by the strategy of conventional brinkmanship from this early on. The second Korean War is a good example of this. A brinkmanship strategy is about forcing an interaction with the adversary to the threshold of confrontation to gain advantageous negotiation position over the other (Britannica, n.d). The idea is to remain risk acceptant to the brink of war.

The second Korean War is not a formal war but has been referred to as one because of the high tensions and closeness of breaking out. Conventional deterrence by punishment can help explain the aggressiveness as demonstrated above. However, considering the revisionist motives that North Korea had at the time, it is fruitful to discuss conventional brinkmanship strategy from this early on. To understand brinkmanship, a state needs to have a motive to convince the counterpart to agree to its terms. For North Korea, it largely concerned reunification of the Korean peninsula on its own terms (Xiaohe, 2010, p. 195; Panda, 2020, p. 39). With North Korea`s strong motive to achieve reunification on its own terms, and the aggressiveness of this time period, we may define this behaviour as a strategy of conventional brinkmanship.

A conventional brinkmanship strategy and a conventional deterrence by punishment are not conflicting explanations to North Korea`s military aggression. Keeping the contestation of conventional deterrence in mind, and the need for credibility, these two can arguably be seen as compatible explanations. Conventional deterrence is about protecting its territory and survival by threats. Brinkmanship, on the other hand, can be a strategy to improve one`s negotiation position and showcase capabilities to achieve credibility.

This section has established an outset to the further analysis, by looking into the exclusively conventional military behaviour of North Korea from 1958 to 1979. The observations show a very aggressive North Korea, both in terms of frequency and severity. The aggression can likely be explained by North Korea`s power position on the peninsula at the time, where it held a relatively strong conventional position over South Korea. Pyongyang also had economic support from Soviet to fund conventional aggression. We have to keep in mind that this was the time before the nuclear program was introduced. It means that the same remedies were not available to North Korea in its military strategy, specifically in a brinkmanship strategy and a threatened state that uses conventional deterrence as its only option. Conventional aggression is expected to change in the next phases due to the idea of a nuclear program in the first step, and the actual availability of other capabilities in further steps.

5.3 Reactors and Technology – The Economic Downturn

The initial observations to the next time period on North Korea`s path to nuclear weapon acquisition is the introduction of a new set of provocations, namely the nuclear\missile provocations. Based on the introduction of a nuclear program and new short-range missile capabilities, we should expect a change in the conventional aggressiveness relative to the previous phase where North Korea had limited remedies at its disposal for the deterrence and brinkmanship strategy.

The previous section gave a basis for understanding the pre-nuclear military behaviour of North Korea. The phase of reactors and technology provides a starting point for analysing the change in conventional military behaviour. North Korea did not yet acquire the bomb, but with a nuclear program in its initial phase, new ideas and remedies are expected to change the military behaviour. By looking at the observations from the dataset, this section investigates the change in conventional aggression from 1980 to 1999.

The context around the phase of reactors and technology is affected by the fall of the Soviet Union, and the loss of extensive economic support and trade. Additionally, North Korea also started establishing a broad-based missile industry. These missiles are called Scuds and were produced both for North Korea`s own use and for export purposes (Panda, 2020, p. 140). With the production of these short-range missiles came a concretisation of the nuclear weapons development. The CIA forwarded this in 1989 and made the fact that North Korea was pursuing the path to nuclear weapons clearer (Panda, 2020, p. 140).

5.3.1 Patterns of Aggression

The observations show that the first missile test was conducted in 1984 and was considered nuclear-capable later on (ONN, 2020). In the wake of the missile production and first missile test, missile provocations increase rapidly (CSIS, 2020). In addition to introducing a nuclear program, this also adds the strategic aspect to the conventional capabilities. Other initial characteristics are that the total of provocations decreased from the first phase: 74 provocations were conducted in the first phase, relative to 51 in 1980-1999. Essentially, what is categorised as nuclear and missile provocations turn out to be the second most frequent provocation conducted from 1980-1999 (CSIS, 2020).

Infiltration and incursions remain the most frequent provocation. However, what is interesting is how frequent the nuclear and missile provocations are relative to the second place in the first phase. There was a total of seven plane infringements from 1958-1979, but 14 missile provocations between 1980-1999. The overall pattern is that as the nuclear weapons program starts, conventional provocations start to slightly decrease, where missile provocations increase from the beginning of the 1980s and keep relatively sturdy. Figure 6 below illustrates this trend. There is also a point in 1988-1989 where there were no provocations at all. This does align with the beginning of the end for the Soviet Union. This phase, in the bigger picture, would be best explained as an overlapping period, where missile provocations start to equalise conventional versus strategic aggression (CSIS, 2020).
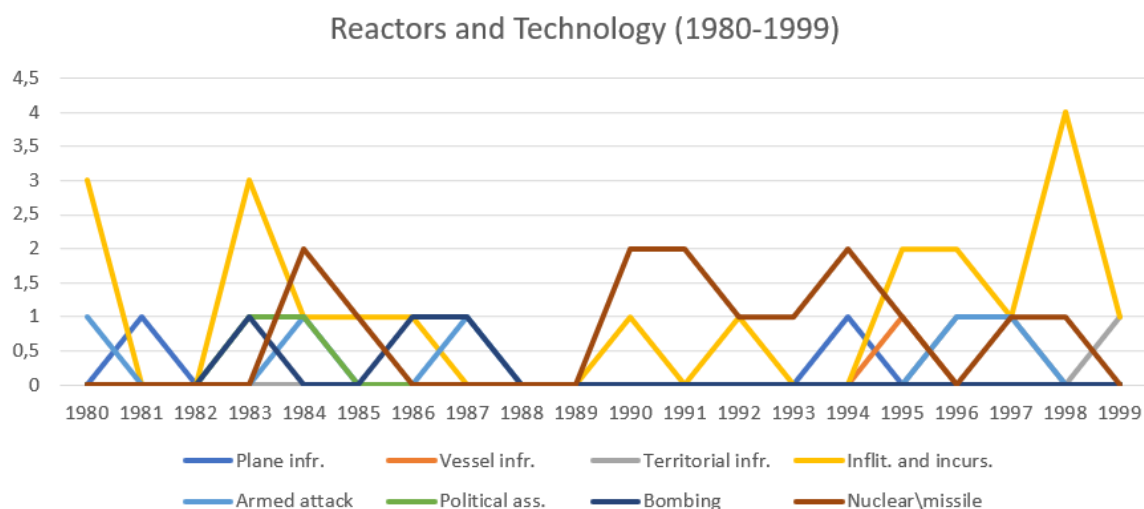
Figure 6: All North Korean provocations during the second phase: Reactors and technology
(CSIS, 2020)

5.3.2 The Beginning of a Realistic Nuclear Program and the end of the Cold War

North Korea`s top priority has always been survival, and the nuclear weapons program is a crucial part of its strategy to maintain the regime (Panda, 2020, p. 71). The beginning of the North Korean nuclear program is defined in 1980 when Kim Il-Sung had presided over the indigenous building of North Korea`s first major operative nuclear reactor. Fuel for nuclear weaponry and investments in nuclear science is the beginning of a nuclear North Korea (Panda, 2020, p. 99). Yongbyon is the beating heart of North Korea`s nuclear program. And even though there have been nuclear ambitions in North Korea since its origin in the 1960s, it did not have a great impact until 1980. Only by 1986 were the reactors operative. This is also the time when the U.S. caught an interest in the reactors (Panda, 2020, p. 101). By 1980, the science and ambitions became more real, and the construction of two more reactors began in 1990. However, the process of the nuclear program was wobbly as the reactors have been operating and frozen on and off due to international involvement (Panda, 2020, p. 101-102).

Nuclear weapons development is an expensive affair, but the North Korean economy in the 1980s was reliant on direct aid from the Soviet Union. The two-way trade between North Korea and the Soviet Union accounted for 50-60 per cent of North Korea`s total trade. The Soviet Union provided North Korea with manufactured goods, fuel, and transportation equipment in exchange for rolled ferrous metals, oil, and sub-standard North Korean value-added products (Habib, 2011, p. 151). Even though North Korea has been exporting military capabilities to other states, it was starting to fall behind South Korea economically already in

the mid-1970s. By 1977 South Korea was spending more on defence than North Korea (Cha and Kang, 2018, p. 50)

The phase of the pre-nuclear program was also characterised by significant economic support from the Soviet Union. However, in the second half of the 80s, there was a growing food crisis in North Korea. At the same time, Soviet subsidies started to decline. With the beginning of the 1990s and the Soviet collapse, Soviet could not provide North Korea with the same economic support as earlier. This had a significant influence on North Korea`s economy then, and it never got out of that economically deteriorating situation (Habib, 2011, p. 151). By 1991, North Korea could not keep the economy at the former level of complexity (Habib, 2011, p. 152). Since the 1980s, North Korea has kept falling behind South Korea on many levels (Cha and Kang, 2018, p. 51).

By looking at the empirics, there is a stability in provocations conducted up until 1987. In 1988 and 1989, there were no provocations conducted at all. This is the only time from 1958-2020 that North Korea has refrained from conducting provocations for more than one year. There are only a few examples where North Korea has gone a year without conducting provocations (CSIS, 2020). At the same time as this "lack" of provocations is witnessed in 1988 to 1989, North Korea`s agricultural output began to decline as Soviet subsidies dropped (Habib, 2011, p. 151). The observations seemingly align with the economic situation of North Korea. However, there is an interesting observation in 1990 and 1991. The year that the two-way trade collapsed, provocations started to increase again.

We know that the economy of North Korea worsened after 1991, and North Korea never got back to this economic state. However, North Korea`s military expenses are high and might signal a priory of this aspect. Looking at the reason for North Korea`s motives for developing a nuclear arsenal in the first place, the provocations might be seen as a necessity over anything else.
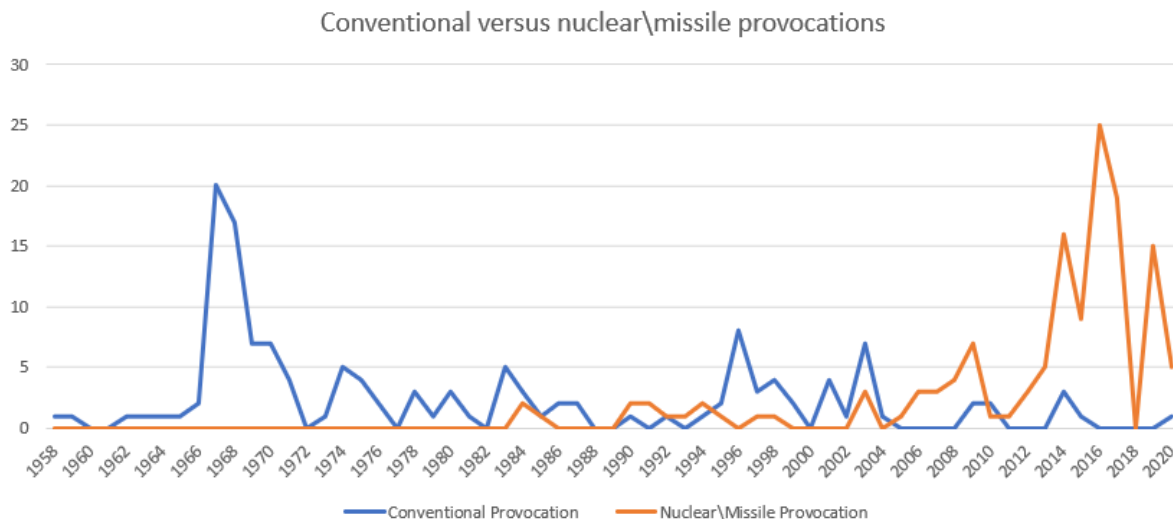
Figure 3: North Korean conventional provocations and nuclear \ missile provocations (CSIS, 2020)

Just for comparison, let us take a look at the conventional provocations conducted prior to, and after, the economic decline in 1990 (see figure3). From 1980-1989 21 provocations occur, while 27 occur from 1991-1999. If anything, there were slightly more provocations right after 1990. By looking at the bigger picture for a moment, this time seems like an overlapping time, right before nuclear and missile provocations dominate the number of provocations (CSIS, 2020). A possible explanation is the determination to stick with the brinkmanship strategy. This can arguably have a relation to the beginning of a new prioritisation in favour of missile and nuclear provocations. Following this idea, why did North Korea perceive the provocations as crucial even when it suffered from a food crisis and the loss of its most important trade partner?

The answer to this arguably follows from the transition in power relations on the Korean peninsula. At the same time as North Korea`s economic vulnerability was exposed; South Korea was on the path of great economic and political growth. South Korea transitioned from authoritarian to a democratic regime and went through rapid economic growth. The economic dynamics were shifting. South Korea became one of the wealthiest nations in the world, at the same time as North Korea`s economy stagnated. In turn, this also intensified North Korea`s insecurities and fear of reunification on South Korean terms. Panda explains the outcome of the post-Cold War insecurities as a mix of diplomacy and nuclear development (Panda, 2020, p. 41).

5.3.3 Conventional Stagnation and the Beginning of Conventional Inferiority

The determination to remain aggressive despite an economic downturn might be explained by conventional brinkmanship strategy in itself. However, I argue this also indicates a shift in priorities from conventional to nuclear and strategic capabilities. In such an economically pressed situation, it is plausible to think that the state would have to make expenditure choices, especially in a state like North Korea where the military is central to the economy.

Supporting this idea is that the top priority of North Korea, since the end of the Korean War, has been survival. This is the time where North Korea started the quest for nuclear weapons for real, and at the same time, non-strategic conventional capabilities reached stagnation. Nuclear weapons development is also an extremely costly affair. Most of North Korea`s capabilities to this day have not been updated since the 1990s. Much of its technology is also based on Soviet technology. Today North Korea is one of the poorest countries in the world but spends a quarter of its GDP on its military (Albert, 2020). It is clear that prioritising military spending is crucial.

While South Korea has kept updating the conventional weapons technology, North Korea has kept to its non-strategic conventional capabilities from the 1990s (Albert, 2020). Today, North Korea`s nuclear posture is compatible with what Vipin Narang calls asymmetric escalation (Panda, 2020, p. 80). Although it is early to speak about a nuclear posture in 1980-1999, this context of economic insufficiency and a conventionally superior adversary might show preliminary signs of nuclear weapons as compensation of conventional inferiority. It is understandable that North Korea starts showing off strategic capabilities at the same time as it starts a nuclear program. Means for delivery are crucial to a future credible nuclear deterrent. The purpose of nuclear weapons to North Korea are remedies for survival (Panda, 2020, p. 71). Nuclear weapons would add to the opportunities of deterrence strategy, especially the contestation of the capabilities in a nuclear deterrence strategy, relative to a conventional one (Wirtz, 2018).

The reason we can speak of asymmetric escalation as a contributing explanation is the idea of favouring nuclear development with a future goal of reaching the type of position that Pakistan has with India. Pakistan signalises the early use of nuclear weapons against Indian conventional attacks (Panda, 2020, p. 80). With having to face a change from conventional superiority to conventional inferiority, and being a threatened state with survival as its one

goal, it is not unthinkable that the idea of developing a strategy based on nuclear weapons is visible at this point.

It remains to analyse the next two phases before concluding whether asymmetric escalation based on nuclear weapons can explain decreased conventional aggression. However, we can argue at this point that the motive of relying on nuclear weapons for survival is present. Especially considering the sudden economic shortcomings that were further manifested by the fall of the Soviet Union. The thought of asymmetric escalation cannot be assessed at this point. But the idea of compensating conventional inferiority with nuclear weapons seems to be plausible. It remains to investigate the further development in the next phase. But by looking back there seems to be some choices and prioritisations made that will help understand the shifting aggression from conventional to nuclear and missile. In the next section, I will investigate the conventional aggression in relation to further nuclear development.

5.4 The First Acquisition of Nuclear Weapons

The nuclear weapons development took a turning point from 2000-2006. It went from conventional missile launches, and the focus on means of delivery, to Pyongyang performing the first nuclear test in 2006. Although this turn of events seems to happen right before the fourth phase starts, some new aspects that led up to this event needs investigation. The pursuit of short-range missiles started earlier than the 2000s, and these missiles were only seen as a steppingstone for further development of more advanced missiles, especially nuclear-capable missiles (Panda, 2020, p.142). But by the 2000s, North Korea had become an experienced producer and proliferator of short-range missiles (Panda, 2020, p. 145).

The empirical picture of the third phase shows that the trend of increased nuclear and missile provocations is further consolidated while conventional aggression decreases. The previous section of this chapter found that a strategy of nuclear compensation might have started in the reactors and technology phase. Investigating the phase that culminates in a nuclear weapons test will enable the analysis to look further into this explanation.

5.4.1 Nuclear Weapons Progress in 2000-2006

In the first years of this phase, North Korea found itself in a crisis. The Agreed Framework was an agreement signed by the U.S. and North Korea in 1994 to freeze North Korean nuclear reactors construction. In return, North Korea would get fuel from the U.S. while waiting

(Arms Control Association, 2018). This framework saw its end in 2002. It links to the end of the previous phase - In 1998, North Korea launched a test of a Taepodong, an intermediate-range ballistic missile. Following this, a meeting between North Korea and the U.S. came in 1999 called the Berlin Agreement. Both states agreed that North Korean long-range missiles would be paused during the talks with the U.S. The U.S. lifted most economic sanctions in return (Panda, 2020, p. 50).

These interactions symbolise an increase in U.S-North Korean interactions. The Agreed Framework and the Berlin Agreement have implications for North Korean behaviour between 2000-2006. It declared an end to the Agreed Framework and committed to continue the pursuit of nuclear weapons in 2003. This pursuit of nuclear weapons is underscored by the resignation of the NPT in the same year (Panda, 2020, p. 52).

What started as an agreement between North Korea and the U.S. in the end of the second phase has implications for North Korean aggression in this third phase. The relationship between North Korea and its adversaries worsened in 2003 (Panda,2020, p. 53). The six-party talks characterised the following two years, where diplomacy shifted between progress and deteriorated relations (Panda, 2020, p. 56). These events led up to the first intercontinental ballistic missile launch (ICBM) in 2006, and the first nuclear test later the same year (CSIS, 2020). Based on these years of instability and diplomacy, Pyongyang blamed the U.S. for its increased aggressiveness and continued quest for nuclear weapons (Panda, 2020, p. 59)

Following the nuclear aspect, the third phase is characterised by the re-continuance of nuclear weapons development after a slowdown in the late 90s. Theoretically speaking, this is the time where North Korea first acquired a nuclear-capable weapon. The years after 1999 built up to the end of the phase where the first successful nuclear weapon test was conducted. However, this milestone is only the beginning of acquiring a nuclear deterrent. It still remained to make it operative and produce it in larger scales. Including this nuclear test, it is necessary to address the other milestone: the first tests of non-nuclear intercontinental ballistic missiles. This ICBM is called Taepodong-2 and was a failed test (CSIS, 2020). Although this was not a nuclear-capable missile, it is an indicator of strategic progress and further pursuit of nuclear weapons. In the meantime, it was not until 2017 that the first successful ICBM test was conducted, a Hwasong-14 (CSIS, 2020; ONN, 2020).

The development illustrates the beginning of means of delivery and a breakthrough for actual nuclear weapons. It marks an intermediate state of progress before developing a nuclear arsenal for deterrence. In the next section, I will go through the empirics on conventional behaviour in this phase of nuclear weapons development to explain trends and relations to this context and stage of progress. In the years following the breach of the NPT and the Agreed Framework in 2003, there is an active North Korea pursuing the further development of nuclear weapons. How has this impacted conventional military aggression?

5.4.2 Active Nuclear Weapons Pursuit

There were seemingly fewer provocations conducted in 2000-2006 than in the two previous phases. However, this phase is also substantially shorter than the other two. If we look at the average provocations conducted each year in the respective phases, it shows that there is not a big difference. The average number of provocations a year in 1958-1979 is 3.36 with a decrease in phase two to 2.55. The third phase falls right in between these two, with an average of 2.85 provocations a year. The numbers are drawn from the dataset on all provocations, without differentiating between categories. It is misleading to look at these numbers alone. Because North Korea introduces the nuclear aspect in this phase, there are also more missile and nuclear provocations. Considering the average number of provocations are almost the same, and more missile and nuclear provocations are conducted, there must be a decrease in conventional provocations isolated from missile and nuclear.

While looking at the overall picture of provocations, there are only 13 conventional provocations and seven missile \ nuclear provocations. For comparison, there are 14 missile provocations in the second phase, where missiles were first introduced. Considering the difference in time span, it is valuable to look at the average amount of missile provocations per year as well. The average for the second phase is 0.7 per year, and for the third it is 1. These numbers are illustrated in table 4 below.

	Average provocations per year in total	Average nuclear\missile provocations per year
Phase 1: 1958-1979	3,36	0
Phase 2: 1980-1999	2,55	0,7
Phase 3: 2000-2006	2,85	1

We can tell that there is an increase in nuclear and missile provocations. But has this affected the number of conventional provocations? There are several conventional provocations conducted at the beginning of phase 3. From 2000-2002 there were no nuclear or missile launches, but multiple conventional provocations. Figure 8 below illustrates the trends in different provocations. The trend from 2000-2003 can be explained by the Agreed Framework and the Berlin Agreement: the use of nuclear or missile provocations would send a signal that contradicts these agreements.

On the other hand, following the end of the Agreed Framework, nuclear and missile provocations increased in a rapid pace. From 2003, and the end of these agreements, North Korea conducted seven nuclear- and missile provocations (CSIS, 2020). This marks the beginning of nuclear and missile provocations` domination of the overall picture. This can be seen in the graph below and in figure 3 above.
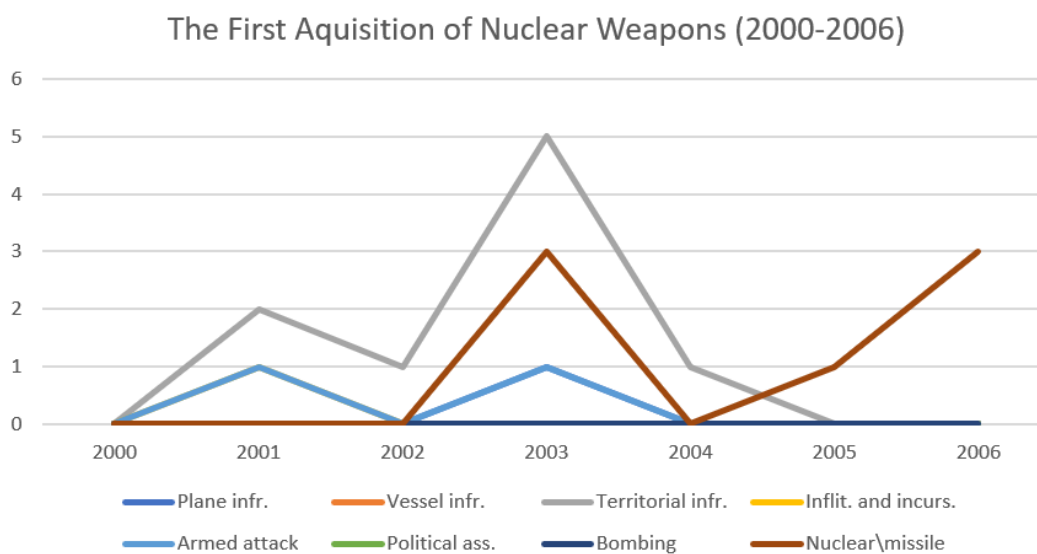
Figure 8: All North Korean provocations conducted during the third phase: The First Acquisition of Nuclear Weapons (CSIS, 2020)

By taking a closer look at the escalation after the breach of the agreements, we can tell that missile, and nuclear provocations increase while conventional provocations decrease. As explained in the observation chapter, this is also the overall trend in North Korean provocations. North Korea withdrew from the NPT in January 2003. Only a month after,

North Korea conducted a territorial incursion by aircraft. Four days later, a missile launch is conducted (CSIS, 2020). Provocations remain at a high level throughout 2003. There were ten provocations in 2003 in total, as opposed to five provocations in total from 2000-2002. This does illustrate an escalation, or at least an increase in aggressiveness.

However, it also showcases a decrease in conventional provocations, making missile and nuclear provocations more prominent. We can also look at this as a turning point where the process of acquiring nuclear weapons has been slowed down, and missile and nuclear aggressiveness would align with North Korea`s statement of fully continuing its pursuit of nuclear weapons (Panda, 2020, p. 56). It would also signal dissatisfaction with the diplomatic talks leading up to this event in 2003. Except from one territorial provocation in 2004, the remaining years of this phase are exclusively missile provocations, leading up to the breakthrough in 2006 with the first nuclear test.

5.4.3 Nuclear Compensation for Conventional Inferiority

It is obvious that North Korea`s focus after the breach of the Agreed Framework and resignation from the NPT was nuclear weapons development. If we look at the big picture of provocations, it also showcases the beginning of where nuclear and missiles are starting to dominate. Building up to the end of the third phase and the beginning of the fourth, there are almost no conventional provocations. From 2005-2009 the provocations are exclusively of a nuclear and missile character (CSIS, 2020). This phase manifests the shift in focus from conventional to nuclear and missile, as we saw an introduction to in the previous phase. It goes from no missile provocations in the first phase, to an overlapping period in the second phase, to no conventional provocations in the last two years of the third phase.

The idea of having to prioritise between nuclear provocations and conventional provocations are rooted in the Soviet explanation from the previous phase. Nuclear weapons are costly, and as shown in the previous phase, North Korea suffered economically from the fall of the Soviet Union. It is possible that the decrease in conventional aggression could be due to the long-term effects of the fall of the Soviet Union. The economy is heavily based on the military, and North Korea has been exporting military equipment to other countries. Despite this, the economy has been bad since 1990 (Habib, 2011). It does not come down to quantity when speaking of conventional inferiority, rather the capabilities that have not been updated. As time goes on, the gap between North Korea and South Korea`s conventional capabilities grow bigger. North Korea has not updated their capabilities since the 90s (Albert, 2020).

Nuclear compensation is not a new theory. It may be perceived as beneficial for conventionally inferior states to rely on nuclear weapons as compensation for their lack of conventional capabilities (Bruusgaard, 2021, p. 4). Bruusgaard provides an example of this: Because Russia was conventionally inferior to NATO in the early 2000s, Russia threatened with early and limited use of nuclear weapons (Bruusgaard, 2021, p. 10). One of the perceived advantages of nuclear compensation as deterrence is that it can reduce the likelihood of an adversary risking conflict (Bruusgaard, 2021, p. 9). However, this is not unproblematic. There is a problem with deterring conventional aggression with a nuclear response because it is hard to keep at a controllable level of escalation. Especially with the growth of second-strike capabilities. This generates a risk of nuclear retaliation for the first employer of nuclear weapons. In turn, this would make such a threat less credible unless it is limited (Bruusgaard, 2021, p. 8). The threat is less credible if it implies the destruction of its own country.

What a state perceives as a good nuclear deterrence strategy varies from their situations. Also, when it comes to whether or not to use nuclear weapons in retaliation of a conventional attack, or just focus on conventional capabilities in general (Buursgaard, 2021, p. 10). This means that it is a careful consideration on whether to advance conventional capabilities, or relying on nuclear weapons. It is difficult to pursue both, especially for a weakened economy like North Korea`s after the fall of the Soviet Union.

5.4.4 Nuclear Compensation as a Rational Choice

To further investigate this explanation for North Korean decreasing conventional aggression, it is fruitful to look into whether this could be perceived as a good option at the time (2000-2006). Nuclear retaliation against conventional attacks can be seen as irrational (Bruusgaard, 2021, p. 10). But in the case of North Korea, it might be rational from the information available at the time. In his book from 2020, Panda uses a game-theoretical illustration on the options one can act upon if there is suspicion of an attack (Panda, 2020, p. 232). This might have some transfer value to explain this case: If a possible attack occurs, and North Korea perceives it as an actual attack, the leader will most likely die in the destruction. But he can choose to become a dead hero by retaliating. The alternative would be to ignore it and be wrong. In the latter, he would be dead, and not a hero (Panda, 2020, p. 233).

This also relates to the asymmetric escalation posture that both Pakistan and North Korea employ today (Panda, 2020, p. 80). A state that is threatened by its very existence might choose a posture that implies early escalation to the nuclear level. North Korea would not be

able to stand up against the U.S. and South Korea in a conflict, and might seek to deter by escalating quickly. For North Korea, it would be perceived as the best possible option to strike first, despite knowing that the consequence is regime collapse (Cha and Kang, 2018, p. 18). North Korea did not have a first-strike capability from 2000-2005, and the first nuclear weapons test in 2006 was also very small, and arguably not something that would be ready to use for that purpose. This needs further investigation in the following section, but it does demonstrate how this would be rational for North Korea, and the choices that were made in the third phase.

An explanation that the nuclear compensation thesis does not account for is the possibility for these states to choose improvements of conventional capabilities instead (Bruusgaard, 2021, p. 10). It requires the state to favour nuclear weapons over conventional, even though it is possible to improve conventional capabilities. In 2000-2006 North Korea was very determined to continue its nuclear weapons development while being conventionally inferior to South Korea. This was also before South Korea started the advancement of conventional strategic capabilities in 2012 (Bowers and Hiim, 2021, p. 11). It would require great technological advancement and economic funding to erase the conventional gap between North Korea and South Korea at the time. Another plausible reason for realising this defeat is the American support on the South Korean side.

It is clear that North Korea chose the path of nuclear weapons. This has affected conventional advancement, which explains why conventional provocations decrease simultaneously as nuclear and missile provocations increase. This is also explained by the blurring lines between nuclear and conventional capabilities. North Korea might not have foreseen the possibility of conventional weapons ability to deter nuclear weapons in the following decade. By comparing North Korea to Pakistan, this further explains the idea of an asymmetric escalation posture. It was too early to ascribe North Korea a nuclear posture in 2006. But North Korea has been clear on how nuclear weapons would be used to protect its survival against South Korea and the U.S. As a small state facing severe threats, it seems plausible that it would pursue nuclear weapons as opposed to conventional capabilities to deter its conventionally superior adversaries. This emphasis does explain the missile and nuclear domination on provocations.

The third phase is mostly characterised by the re-continuance of a nuclear program that leads up to a breakthrough with the first nuclear weapons test in 2006. The conventional provocations decreased specifically after 2003, when North Korea left the NPT and the Agreed Framework. At the same time, the year 2003 manifests the focus of nuclear weapons

as opposed to the advancement of conventional capabilities. The poor economy leads to a careful consideration of which path to follow, nuclear or conventional. With a continuance of the nuclear development, and testing the waters for ICBMs (although unsuccessfully), it signals a shifting focus from conventional to nuclear deterrence. This is compatible with the brinkmanship strategy that was mentioned in the previous section. The goal of North Korea is to survive, and by doing so, Pyongyang employs an aggressive military behaviour. This was more conventional in character in the beginning. In 2000-2006, there was almost the same level of aggression, although not in conventional terms. Nuclear weapons and missile provocations seem to replace some conventional provocations, making the total number relatively stable. Seeing it in the bigger picture, the first phase is exclusively conventional for obvious reasons. The second one is an overlapping phase where conventional and missile provocations are conducted relatively equally. The third phase marks a turning point, where nuclear weapons and missile provocations are starting to dominate the overall picture.

5.5 Developing a Nuclear Arsenal

The biggest difference between the phase of the first nuclear acquisition and the ending of the fourth phase is that of means of delivery. The previous years mark a breakthrough by successfully testing the first nuclear weapon, but in this phase, it turns to the actual development of an arsenal that can travel distances and reach the targets (Cha and Kang, 2018, p. 186). This phase was about completing a nuclear deterrent, and Kim Jong-Un claimed in 2017 that it was complete (Panda, 2020, p. 69). In the three previous phases, we see a gradual decline in conventional provocations, up to the point where there are almost no conventional provocations at the end of phase 3 (2005-2006).

It started with a conventionally aggressive North Korea, until the 1980s where missile and nuclear provocations are introduced, and conventional inferiority is manifested. To the third phase where nuclear compensation seems likely, especially in the last two years until 2007. This seems likely and compatible with an idea of asymmetric escalation as a future posture for deterrence. It remains to examine the fourth case to see if this is the case, and if conventional aggressiveness is limited to the benefit of nuclear and missile provocations. This is the phase where it would be possible to identify a change from a "conventional brinkmanship" to nuclear brinkmanship.

The first years of developing a nuclear arsenal were characterised by more talks with the U.S. with varying degrees of progress. In 2007 the International Atomic Energy Agency was involved in disablement activities in North Korea and announced that eleven nuclear facilities were shut down. Progress between the two continued until 2008 (Panda, 2020, p. 59). However, this took a turn of events in late 2008, when North Korea was done with more talks. The second nuclear test symbolised this in 2009 (Panda, 2020, p. 61).

In the conventional aspect, an almost all-out war occurred on the peninsula due to a North Korean vessel crossing the Northern Limit Line (NLL). South Korea sunk the vessel and claimed to have sent warning signals prior to the sinking. Pyongyang perceived this as an escalation to conflict. In the following year, threats were verbally sent to one another, where Seoul promised to strike North Korean nuclear missile operating bases with precision weapons if Pyongyang were to escalate to a nuclear level (CSIS, 2020; Panda, 2020, p. 61). At the end of 2010, North Korea also fired artillery against the South Korean Island Yeonpyeong, which killed four South Koreans and injured at least 16. Another noteworthy conventional provocation that was conducted was the sinking of a South Korean vessel. These events were of a serious character and had high escalation potential as it was close to an all-out war (Panda, 2020, p. 62; CSIS, 2020).

5.5.1 Nuclear Development Acceleration

In the middle of this phase, Kim Jong-Il dies, and Kim Jong-Un becomes the new leader of North Korea. This has been viewed as a time where hope for further talks of denuclearisation dies. In the following years talks were attempted, but the nuclear development went on in a higher pace (Panda, 2020, p. 66). From 2007-2017 five more nuclear tests were conducted, which are far better than the first test in 2006. The second test came in 2009, the third in 2013, the fourth and fifth in 2016, and the last nuclear test in 2017 (CSIS, 2020). North Korea also succeeded in developing ballistic missiles, modifying short-range missiles, precision strike, and missiles with a greater reach (Panda, 2020, p. 145; Panda, 2020, p. 147; ONN, 2020). Many of these capabilities are considered nuclear-capable.

It has tested two ICBMs called Hwasong-14 and Hwasong-15. The Hwasong-15 is claimed to be nuclear-capable, and able to reach the U.S. mainland. Nevertheless, it has only been tested once in 2017 (ONN, 2020). A breakthrough came with the pukguksong-2 medium-range missile. It sent a message to the U.S. and South Korea that a new missile could reach further than the previous ones that were tested (Panda, 2020, p. 178; ONN, 2020). Another milestone

for the nuclear weapons development is the nuclear-capable intermediate-range missile called Hwasong-12. This missile was successfully tested three times in 2017 and can reach the American military base on Guam (ONN, 2020; Panda, 2020, p. 184). It signalled a new capability in the North Korean nuclear arsenal.

5.5.2 Empirical Overview

If the idea of a nuclear compensation strategy is valid, we should see an even greater decrease in conventional provocations at this point. However, as already mentioned, two of the most severe conventional provocations since the Korean War occurred in this phase. As illustrated in figure 10 below, there is an extreme increase in nuclear and missile provocations. As mentioned in the previous section, the beginning trend in 2005 of exclusively conducting nuclear weapons continues throughout 2009, with the exception of one territorial infringement.
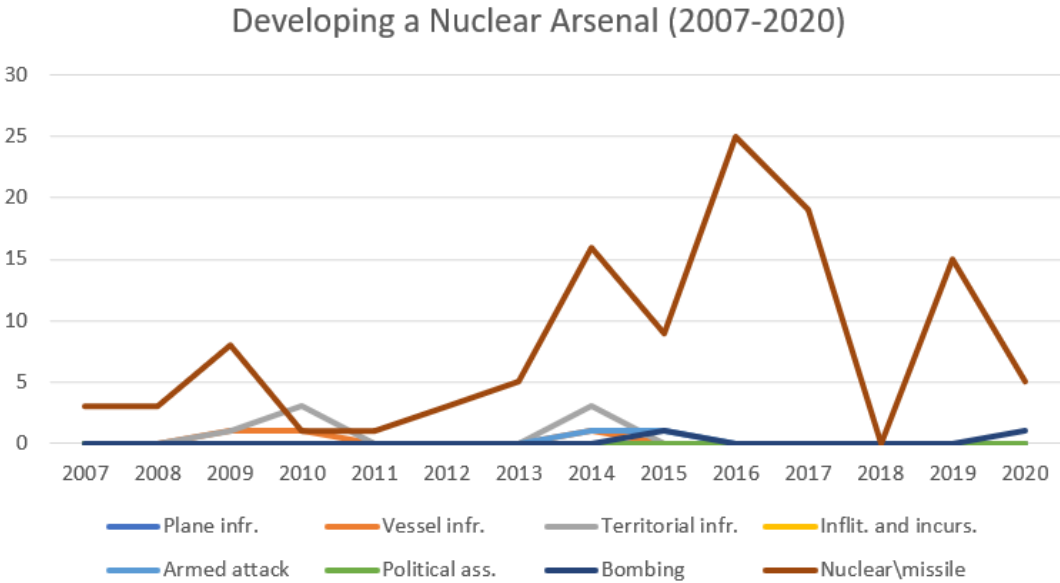
Figure 10: All North Korean provocations conducted during the fourth phase: Developing a Nuclear Arsenal (CSIS, 2020)

Aside from the nuclear and missile domination, another interesting observation is that, although few, several of the conventional provocations are severe and have high escalation potential. As explained above, there were high tensions between the two Korea`s from 2009 to 2010. Panda pointed out that it was close to resulting in an all-out war (Panda, 2020, p.61). Although a territorial infringement can be severe to different extents, the event of which North Korea crossed the NLL escalated and led to increased tensions. Only the year after

came the second severe territorial infringement in which 170 artillery was shot at Yeonpyeong Island (CSIS, 2020).

Despite a relatively low frequency, conventional provocations from 2009 to 2010 illustrates a very aggressive behaviour in terms of severity. At the same time as this conventional aggression went on, nuclear and missile provocations were at its lowest in 2010. The two years of high tensions seem to be an exception from the nuclear and missile dominating trend.

Another note is that the conventional provocations had a slight increase in 2014-2015. There were two bombings, one in 2015 and one in June 2020, which is an especially severe provocation with high escalation potential (CSIS, 2020). In sum, the conventional observations from 2007-2020 are few but at the same time severe. Table 5 showcases how much of the overall picture is dominated by nuclear and missile provocations relative to the other phases.

	Average provocations per year in total	Average conventional provocations per year	Average nuclear \ missile provocations per year
Phase 1	3,36	3,36	0
Phase 2	2,55	1,85	0,7
Phase 3	2, 85	1,85	1
Phase 4	8,9	8	0,9

Table 5: Average provocations conducted per year in each phase (CSIS, 2020)

The trend of nuclear compensation seems to be strengthened by the fourth phase. Aside from 2010 to 2011 and 2018, nuclear and missile provocations are noteworthy. However, the decrease in 2018 has a relatively simple explanation. This was when the 2018 summit between Trump and Kim Jong-Un took place. 2018 was a short-lived but good diplomatic year between the two Korea`s and U.S-North Korean relations. There was a new Inter-Korean summit and the Singapore summit between Kim and Trump (Panda, 2020, p. 21). This explains why there are zero provocations in 2018. However, the temporality of the progress is also illustrated by the increase in 2019. The talks that started in 2018 ended in a deadlock, and the relationship soured once again (Panda, 2020, p. 22). Aside from these remarks, the rest is exclusively missile or nuclear.

5.5.3 The Byungjin Policy

The table 4 above illustrates the extreme increase in nuclear and missile provocations. The decrease in conventional provocations is also extreme. These seem to correlate; at the same time as one increases, the second decreases. This is not coincidental. In 2013, Kim Jong-Un started a campaign named Byungjin. The term and idea behind it is not new. In the 1960s, Kim Il-Sung introduced a policy in which economics would be improved simultaneously as the military and defence would be focused (Panda, 2020, p.16; Snyder, 2013). Similarly, Kim Jong-Un introduced a campaign with the same name in 2013. It would take on economic prosperity and defence. However, this time the defence part was largely focused on the nuclear deterrent (Snyder, 2013). The most significant difference in those two similar campaigns was the emphasis on defence—the first one concerned costs of conventional nature. Kim Jong-Un`s campaign showed early to focus on nuclear development. This idea is underscored by Panda`s argument, where he says everything from space launches to ballistic missile tests and nuclear tests between 2013 and 2018 can be traced back to this policy (Panda, 2020, p. 17).

It certainly contributes to explaining the high number of missile and nuclear provocations illustrated in the graph above. Furthermore, it could also explain the low numbers of conventional provocations. Because a campaign that focused on improving the economy so that it could be spent on defence ended up focusing on nuclear weapons and missile launches, it tells us that out of economic reasons, nuclear development has been prioritised over conventional military spending. It indicates an explanation as to why conventional provocations are significantly low. The number of missile and nuclear provocations was high before 2013 compared to the other phases of nuclear development, but the graph shows an especially high frequency in the years following 2013 (CSIS, 2020).

There is a strong indication that defence is perceived as synonymous with nuclear and strategic development. When speaking of defence in terms of this policy, it is clear that nuclear and strategic weapons were the intentions, excluding conventional development and spending. We know that North Korea`s strategy is to use nuclear weapons as the main tool for securing the regime survival. It is likely that this campaign is closely tied to the emphasis on developing missiles and nuclear weapons. I argue that this is connected to the nuclear compensation strategy that was elaborated on in the previous section.

5.5.4 Nuclear Deterrence or Conventional Advancement

A fruitful discussion that follows from nuclear compensation and the shifting focus, is the lines between conventional and nuclear or strategic capabilities. Why is it spoken of with such determination, despite the advancement of conventional capabilities that we can see in South Korea? Conventional capabilities have been given more attention in the last years. Hiim and Bowers elaborate on how South Korea has started to develop a conventional strategic deterrent in the last years. In her article about Russia and the nuclear compensation assumptions, Bruusgaard also mentions that a possibility is to advance conventional capabilities. She also questions the black and white explanation as to why nuclear compensation is a strategy pursued by conventionally inferior states (Bruusgaard, 2021).

It could be a possible option for North Korea to invest in conventional capabilities like South Korea. We know now that some conventional capabilities can take on the tasks of nuclear weapons or avert a nuclear strike to some extent. Conventional weapons have much more destructive power now. Even though they cannot completely match nuclear weapons, they can still make the adversary`s weapons vulnerable (Son, 2019, p. 136). Theoretically speaking, it is possible to deter a nuclear weapons state. If the nuclear weapons state strikes, and advanced conventional capabilities can inflict unacceptable damage, it could work as deterrence (Son, 2019, p. 133). The most appropriate example here is South Korea. Its strategy is based on three concepts. The first concept in this triad is a missile defence system that is supposed to intercept incoming North Korean missiles. The second is an offensive counterforce strategy that is designed to detect missile launches and destroy the military`s missile launch architecture to prevent a first strike of retaliatory attack. The third part of the triad is multiple ground-, air-, and sea-launched land-attack munitions that are meant to target valuable targets in North Korea (Bowers and Hiim, 2021, p. 11).

As explained above, South Korea has been conventionally superior for a long time. Suppose North Korea was to choose the conventional path, meaning advancing its conventional capabilities as opposed to further nuclear weapons development to tackle the conventional inferiority, it would first have to acquire capabilities that have a great destruction power (Son, 2019, p. 136). Second, the surveillance and intelligence technology would have to be of a modern character to find targets and weapons in South Korea (Son, 2019, p. 135). Third, it would need precision strike capabilities that can destroy designated targets (Son, 2019, p 137).

South Korea has to constantly perform expensive adjustments of their strategy to design around North Korea`s nuclear weapons strategy. In the same way, North Korea would have to commit to great costs to design around South Korea and the U. S` strategy (Bowers and Hiim, 2021, p. 9). An explanation here is in the costs of advancing the conventional capabilities. The talks of a nuclear weapons state started already in the 70s. But as this development went on, North Korea had already invested much in nuclear weapons, as we have seen. Especially in Kim Jong-Un`s era, it is clear what direction he was going in. I argue it would be difficult for North Korea to start the advancement of conventional capabilities so late, as it is a poor country. At the same time, it would take a lot of advancement to reach South Korea`s standards with solely conventional weapons. This is a matter of economics and the early investment in the pursuit of nuclear weapons. There is a wide gap to close. By the time these advancements of conventional weapons became a subject, North Korea was already on its way to acquiring nuclear weapons. The costs of starting to facilitate conventional development instead, would arguably be greater as there is a wide gap between the North and the South.

North Korea is already designing around South Korea`s conventional forces with its nuclear capabilities (Bowers and Hiim, 2021, p. 9). We might also discuss the blurring lines between conventional and nuclear weapons in the North Korean arsenal here. Missile tests started in 1984, and many of the missiles that have been tested since then are now considered nuclear-capable. The motive of acquiring nuclear-capable missiles has been present for a long time, and it has likely affected the purpose of the missiles. The choices that have been made in the nuclear development stages have led to a focus on nuclear capabilities in favour of conventional advancement. Again, this explains the decrease in conventional capabilities. When the nuclear weapons are more advanced and pose a greater threat, it explains why this is the remedy that is used in provocations. Even though the progressive technology on conventional weapons has made conventional deterrence an option, North Korea has held on to the idea of a nuclear deterrent. This ambiguity in conventional and nuclear weapons that has emerged does also demand effort from North Korea to design around it with its nuclear capabilities. In turn, this might increase the nuclear and missile aggression.

5.6 Summary: Nuclear brinkmanship

Even though conventional aggression has decreased rapidly throughout the stages of nuclear development, leading up to the point where it is almost abandoned, it does not mean that North Korean aggression towards South Korea is lower. North Korea has long pursued a brinkmanship strategy and has been aggressive towards South Korea since the end of the Korean War. As Panda and Narang put it (…), "North Korea seems to deliberately dance at the edge of the nuclear cliff both in peacetime and during crisis" (Narang and Panda, 2020, p. 48). As seen above, North Korea is very risk acceptant. However, this strategy of brinkmanship seems to have started as conventional brinkmanship, where North Korea used the tools available to pose a conventional deterrence strategy.

After nuclear weapons development started, this has eventually become the main strategy of survival, making conventional capabilities less important. For a state that is conventionally inferior to its adversary and has a poor economy, it seems plausible that the development of nuclear weapons will affect the costs and energy left for conventional provocations. Additionally, this idea fits with the asymmetric escalation posture that Panda ascribes to North Korea (Panda, 2020, p.83). Considering the threats North Korea faces, it is also plausible to think that the idea of betting on a nuclear deterrent with the willingness to escalate quickly is not irrational. It seems nuclear compensation has led to a decrease in conventional provocations. The option of advancing conventional capabilities would be hard to pursue after nuclear weapons started, and by the time such advanced capabilities were introduced, North Korea already had invested in achieving its goal of becoming a nuclear weapons state.

Does North Korean nuclear weapons development embolden its conventional aggressiveness? The answer is no. There seems to be a close link between nuclear weapons development and conventional military aggression in these cases of North Korea. But on the contrary, this analysis finds it likely that nuclear weapons development has made conventional aggression decrease to the benefit of nuclear and missile aggression. This can arguably be explained through the economic state of the country, the severe threats it is facing, and the advancement of South Korea`s conventional capabilities. As South Korea is advancing its arsenal, North Korea needs to advance its nuclear deterrent further to match South Korea.

Progression in nuclear weapons development aligns with the gradual decrease in conventional provocations. It started with a highly conventionally aggressive North Korea in 1958-1979, before an overlap started in the second phase from 1980-2000 when missile provocations were introduced. Following this, the trend of emphasising nuclear and missile provocations in the early 2000s becomes clearer, before the nuclear and missile provocations are dominating the provocations to a large extent. The following chapter will explore other possible explanations or contributing factors to North Korea`s conventional military aggressiveness.

6.0 Discussion

In the previous chapter, I analysed conventional aggression in four stages of North Korean nuclear development. Following this, conventional military behaviour has not been emboldened by nuclear weapons development. On the contrary, it seems likely that nuclear weapons development has made conventional military aggression decrease because of the need to prioritise in a small nuclear weapons state. It is likely that because of nuclear favouritism, conventional aggression has been almost abandoned as nuclear development progressed. Despite this likeliness that nuclear weapons development has affected the decrease in conventional aggression, it does not deny or discard other possible hypotheses of explanation. I will briefly explore a few other possible explanations in this chapter. First, I will take a look at the differences between the three leaders of North Korea. Second, I will look at relations between North Korea, the U.S. and South Korea. This will be done by exploring the Inter-Korean summits, the six-party talks, and the U.S-South Korean joint military exercises.

6.1 Three leaders – One goal

Because North Korea is a dictatorship where the leader is central and has absolute power, we should expect the policy outcomes to be dependent on the characteristics of the leader. Accordingly, it might also affect the provocations conducted (Lim and Ko, 2020, p. 229). All three leaders have been described as narcissists and eager to preserve the regime. But Lim and Ko (2020) outline certain differences between the three leaders.

6.1.1 Kim Il-Sung

Kim Il-Sung is described to have been very influenced by the Soviet communist party. His policy was based on the idea that "If I don't kill you, then you`ll kill me" (Lim and Ko, 2020, p. 218). This is also reflected in his "Juche-policy". The Juche policy means self-reliance in economic terms, and especially in terms of defence (Lim and Ko, 2020, p. 2018). Nationalism and an aggressive policy are suitable descriptions of Kim-Il Sung`s rule.

In their article, Lim and Ko (2020) discuss how the three leaders` characteristics influenced North Korean provocations. As for the rule of Kim Il-Sung, they describe it as a time where North Korea committed to a high frequency of provocations, yet in a low threat manner. Many small-scale incursions and infiltrations occurred under Kim Il-Sung`s rule. But at the

same time, there were also severe provocations, four political assassination attempts, and ten plane infringements (Lim and Ko, CSIS, 2020). Figure 12 shows the provocations conducted in Kim-Il-Sung`s time period with the same categories that were used for the analysis.
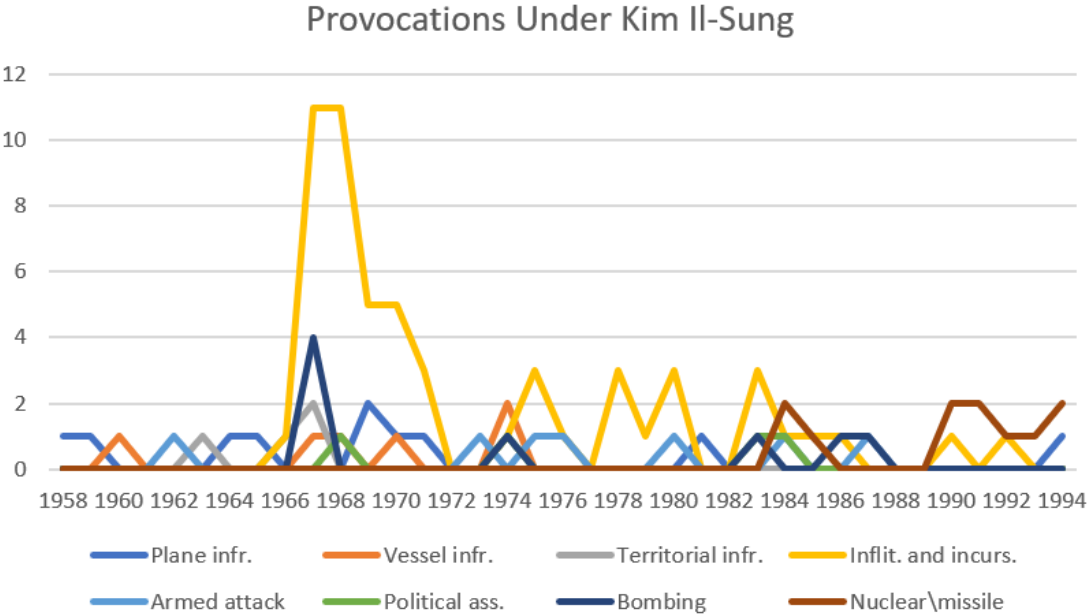

Figure 12: Provocations conducted under Kim Il-Sung`s rule (CSIS, 2020)

Figure 12 shows what Lim and Ko wrote about frequency. A provocation that significantly stands out is infiltrations and incursions. This could be perceived as a less risky provocation because it often happens throughout all four cases in the analysis too. There have been severe infiltrations and incursion provocations, but they are generally not considered severe compared to others, e.g., bombing and political assassination attempts. However, both bombing and political assassination attempts stand out as frequent events relative to their severity. Eight bombings in addition to six political assassination attempts illustrate a relatively high severity or threat. For its time, these provocations would be considered higher in severity than infiltration and incursions. It is, therefore, possible that Kim Il-Sung led a less aggressive behaviour than under the two following leaders.

6.1.2 Kim Jong-Il

Kim Jong-Il is described as a leader that wanted to portray himself as a threat to the international order. As well as lacking empathy, he was also described as paranoid, in which he would respond to a threat with a threat. Following his regimes extreme fear, he was also only inclined to engage in talks with the U.S. and not the smaller states. The biggest

difference between the second Kim was the fact that his father was perceived as the founding father and a god of the country (Lim and Ko, 2020, p. 219).

According to this description, it would be logical to expect an even more aggressive behaviour in the years of Kim Jong-Il`s rule. We know that there are contextual constraints in the three different periods of leadership, such as the support from the Soviet Union in the first phase of Kim Il-Sung`s leadership and the loss of economic support after the Soviet collapse. However, looking at the leader`s effect on conventional aggression isolated, Lim and Ko explain the conventional behaviour under Kim Jong-Il as threatening, but at a low frequency (Lim and Ko, 2020, p. 222).
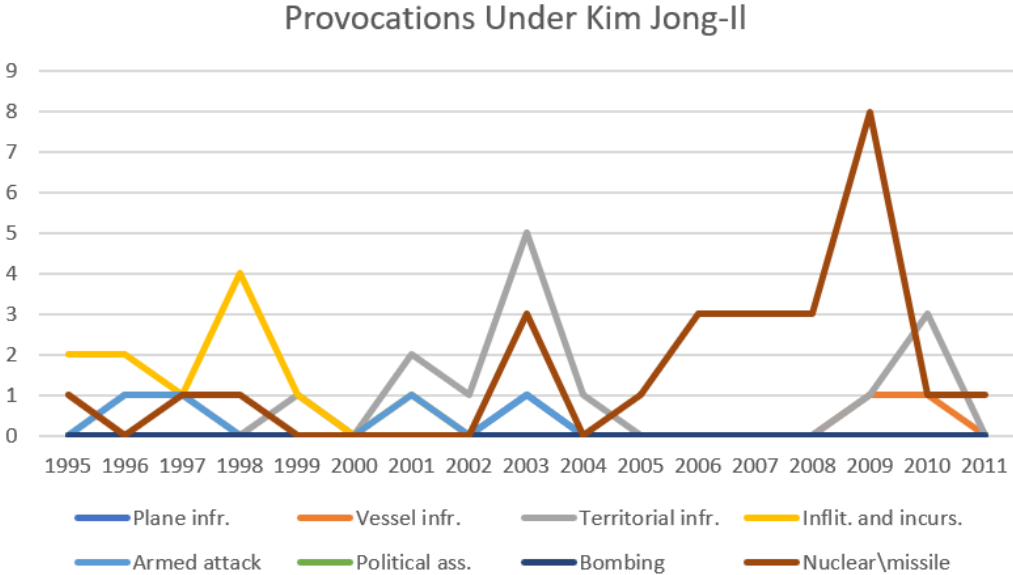

Figure 13: Provocations conducted under Kim Jong-Il`s rule (CSIS, 2020)

Figure 13 shows the provocations conducted under Kim Jong-Il. The figure shows conventional and nuclear\missile provocations combined. Initially, we see a change in infiltrations and incursions, which are less frequently conducted under Kim Jong-Il. However, as also pointed out by Lim and Ko (2020), the provocations take on another level of threats with the high number of missile provocations that are conducted. Territorial infringements do also reach a high number, especially in 2003. 2003 is interesting because this is a time where Kim Jong-Il`s paranoia is explained to peak due to the American invasion of Iraq, and the fear of having to face the same fate (Panda, 2020, p. 13).

It does illustrate a more threatening behaviour in terms of what types of provocations are conducted, with a shift from infiltration and incursions as the most frequent one, to missile provocations. However, it is hard to distinguish the leader`s effect on this relative to the

progress of nuclear weapons development and advancement of weapons in general. The fact that missile provocations are taking over in the end of Kim Jong-Il`s regime is likely influenced both by his paranoia and tendency to threaten at a high level and the state of progress in nuclear weapons development.

6.1.3 Kim Jong-Un

Different from his father, Kim Jong-Un is described as more confident. Kim Jong-Il`s description is largely based on the extreme fear for his regime`s survival (Lim and Ko, 2020, p. 219). But Kim Jong-Un is described as feared, ambitious, and competitive (Lim and Ko, 2020, p. 220). It is also argued that it was due to his ruthless and confident personality that Kim Jong-Un was considered a good successor (Panda, 2020, p. 14). In terms of conventional provocations alone, we might expect an increased aggressiveness under his rule. Lim and Ko (2020) explain the behaviour as very threatening and with a high frequency (Lim and Ko, 2020, p. 223). Kim Jong-Un can be described as an aggressive leader if we include the missile and nuclear provocations. But not in a conventionally exclusive matter.
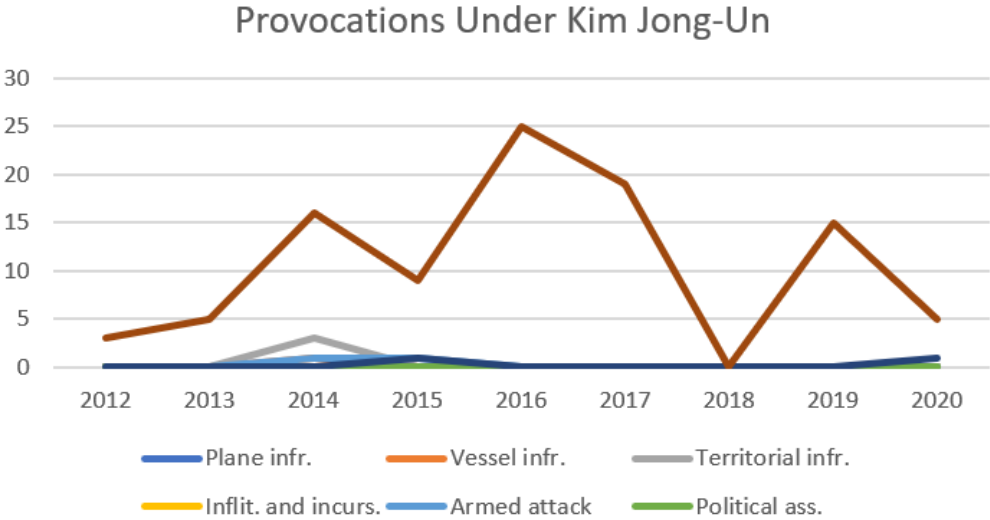
Figure 14: Provocations conducted under Kim Jong-Un`s rule (CSIS, 2020)

As figure 14 shows, conventional provocations occur in a very low frequency under Kim Jong-Un. The most prominent observation is the extreme use of nuclear and missile provocations relative to conventional provocations combined. Aside from that, there are extremely low frequencies of all types of conventional provocations. The fact that Kim Jong-Un is considered a ruthless and confident leader might influence his pursuit of nuclear weapons development rather than increase his conventional aggression as so.

6.1.4 North Korean Leaders and Conventional Aggression

The figures above show a difference in aggression between the three leaders. It is likely that their personality has influenced military behaviour, as they have much autonomy as dictators. It does also highlight different usage of conventional provocations. However, it is hard to distinguish between what is influenced by their personality alone. All three have also faced severe threats towards their regime, and the regime survival has shown to be central goals for all three. Following from the severe threats North Korea has faced since the beginning of the Kim Il-Sung era has also been a core objective for developing nuclear weapons. This was already talked about during Kim Il-Sung`s regime (Cha and Kang, 2018, p. 2). The achievement of acquiring a nuclear deterrent was initiated by Kim Il-Sung, carried forward by Kim Jong-Il, and completed by Kim Jong-Un (Panda, 2020, p. 1). As nuclear tests and missile launches have taken time, it is logical that this would not look the same in the three eras of leadership. We might therefore expect a type of path-dependency started by Kim Il-Sung.

These leader characteristics are likely contributing factors as to why conventional aggression has decreased. This is rooted in the favouritism of nuclear development: the determination to pursue nuclear weapons from the Kim Il-Sung era until Kim Jong-Un is expected to have influenced the shift from conventional to nuclear focus. If one, or more, of the leaders lacked the determination to pursue nuclear weapons, North Korea would not be able to rely on a nuclear deterrent today, and would probably still rely on conventional aggression to preserve the regime. I argue leader characteristics do not explain the decrease in conventional aggression on their own, but are likely to have contributed to the outcome.

6.2 Diplomacy and Adversarial Cooperation

As seen in the analysis chapter, attempts at diplomacy and talks with North Korea have been made on multiple occasions. The American presence on the Korean peninsula and North Korean denuclearisation have been central topics. In this section, I will briefly look into some of these events to see if they contribute to explaining North Korea`s conventional aggression. It would require a lot of investigation to look into all the meetings that have taken place since 1958. Instead, I will look at examples from the six-party talks and the Inter-Korean summits. Lastly, I briefly look at the U.S-South Korean joint military exercises as they have been discussed as a provoking factor to North Korean aggression (CSIS, 2016b).

6.2.1 The Inter-Korean Summits

The Inter-Korean summits are meetings between the leaders of the two Koreas that have occurred five times between 1953-2020. The intention behind organising such a meeting was to formally establish interaction between the two Koreas after the war. The first meeting was in 2000, with a sequel in 2007 (KBS, n.d., a; KBS, n.d., b). The next three meetings were all held in 2018 (KBS, n.d., c; KBS, n.d., d; KBS, n.d., e). It is interesting to briefly look into these talks under this topic because they exclude other interested parties to the conflict, while the following six-party talks include them.

The first meeting in 2000 was an opening to diplomatic relations for North Korea (Cha and Kang, 2018, p. 35). The primary goal and intentions with this meeting were for the two Koreas to consolidate mutual trust and talk about peaceful coexistence through economic cooperation, family reunion, and the idea of addressing the conflict between themselves (Kwak and Joo, 2002, p. 81). These summits also occurred when South Korea led a softened policy towards North Korea called the Sunshine policy (Kwak and Joo, 2002, p. 80; David-West, 2008, p. 146).

Both prior, during, and after this meeting, there were no signs of North Korean aggression, except for a verbal provocation (CSIS, 2020). The years before 2000 showcase a more aggressive North Korea: from 1998-1999, there were seven provocations. Although most of them were infiltrations and incursions, there were also one territorial infringement and a missile launch (CSIS, 2020). This means that the drop in provocations in 2000 is noteworthy. This summit has likely also had an effect on the level of aggression in the two following years, where provocations were relatively low. In the opposed direction: seven provocations prior to the meeting from 1998 to 1999, there were only four in the two years after the meeting.

Despite the decrease in frequency, it is important to also note that an armed attack occurs after. In terms of slightly higher severity in 2001-2002, one might say that the level of aggression was relatively equal before and after the meeting. But compared to other cases of aggression, it is also relatively low. It seems to have had an influence on aggression in a positive direction. The two years following the 2000 summit have been described as a series of progress (Cha and Kang, 2018, p. 13). However, this behaviour is not long-lasting. In 2003, North Korea turned to more aggression again when the nuclear weapons program became a priority. This leads up to the resignation from the NPT and a year with high levels of

aggression (Cha and Kang, 2018, p. 14; CSIS, 2020). In sum, the trend around the 2000 summit shows higher levels of aggression in the years leading up to the summit, and low levels of aggression both during the meeting, and after.

The second meeting occurred in the final phase of the six-party talks, which will be discussed later. It is therefore important to note that these talks might also have influenced conventional aggression. But by looking at the date of the 2007 summit and the provocations close to the summit in time, it might be possible to see some indicators of the 2007 summit`s impact on North Korea. The meeting occurred in the wake of the first nuclear test in 2006 and was a further talk to promote diplomacy and trust between the two Koreas. It was held in October in Pyongyang (David-West, 2008, p. 145).

By looking at the number of provocations in 2007, it ostensibly seems like the level of aggression is high: Three missile provocations occurred in respectively May and June. However, there are similarities between the behaviour in 2007 and 2000. During the meeting, and months before the meeting, there are no provocations. Additionally, no provocations occurred after the meeting in October. The first event to break the silence came in March 2008, five months after. Furthermore, with three more provocations in 2008, it takes a year before the provocations reach a higher frequency again. The trend seems to be moderate aggression in the years prior to the summits, no provocations during the summits, and then one to two years of relatively low aggression following the summits. The Inter-Korean summits seem to have had a temporarily calming effect on North Korean aggression. But both in 2003 and in 2009, a two-year time period after the summits, the level of aggression spikes. In other words, this calming effect seems to run out approximately two years after the talks (CSIS, 2020).

2018 was an intensive diplomatic year for Pyongyang. The three following Inter-Korean summits all took place in 2018. The meetings concerned further talks about peace and prosperity on the peninsula (KBS, n.d., c; KBS, n.d., d; KBS, n.d., e).

As known from the analysis chapter, 2018 was a year with no provocations. Initially, it resembles the surroundings of the 2000 summit. By looking at the years before and after, it does also seem to fit the pattern of both the previous meetings in terms of military aggression. 2017 was a moderately aggressive year. Not in terms of exclusively conventional aggression, but significant numbers of nuclear and missile provocations take place. The year after, 2019, does also resemble the behaviour of 2017. Such a sudden change in one year is noteworthy. It

fits the pattern of moderate aggression before the meeting: no\little aggression during the year of the meeting, and then increased aggression in the period after. However, the temporary calmness is even shorter after 2018 than in the previous two meetings (CSIS, 2020).

6.2.2 The Six-Party Talks

One of the reasons the six-party talks are an interesting example to look at in terms of conventional aggression is because they concerned North Korea`s nuclear program. These talks occurred at several points in time from 2003, before North Korea decided to discontinue in 2009. The talks involved the U.S, South Korea, Japan, China, Russia, and North Korea (Liang, 2018).

The first meeting was held in august 2003 after North Korea announced its withdrawal from the NPT. The motive of the U.S. was a dismantling of the North Korean nuclear program, while North Korea insisted on a non-aggression pact from the U.S. Neither of the parts wanted to incline to the other parts initiative (Liang, 2018). Despite the deadlock in negotiations, it still started the process of talks between the involved parts.

By taking a look at the provocations prior to the meeting, there are multiple provocations. Eight provocations were conducted in 2003 before the meeting and the last one happened only days prior to the talks. Most of them are territorial incursions, but also missile launches and plane infringements (CSIS, 2020). One might think that this does not necessarily seem like very severe provocations. But in its context, missile launches right before a meeting concerning North Korea`s nuclear program can be seen as a severe act of aggression. However, there were no provocations conducted during the meeting in August. There is a pause from the meeting until October, where three more follows (CSIS, 2020). It shows that North Korea is more aggressive prior to the meeting than post-meeting.

After the last provocation in late 2003, there was a one year pause where no provocations were conducted. The second meeting started in February 2004 with a small improvement from the previous meeting. North Korea had agreed to destroy its nuclear program if it could continue the peaceful nuclear activities. This was not acceptable from the American and South Korean sides due to a scepticism towards these peaceful intentions (Liang, 2018). Although no agreement was reached, the acts of conducting provocations were still at zero.

The third meeting came shortly after the fourth. In June 2004, the six states discussed a step-by-step plan for dismantling the North Korean nuclear program and a three month-freeze of the program as a start. Yet again, this did not cumulate in a consensus agreement (Liang, 2018).

Interestingly, despite the lack of agreement during both the second and the third meetings, North Korea kept a low profile. The first provocation came in November 2004, five months after the third meeting. It might indicate some sort of hope for working towards an agreement, and therefore keeping the provocations almost non-existent. This is interesting because most of the years in the history of North Korean provocations, more than one provocation per year is the trend (CSIS, 2020).

This calmness from the North Korean side can possibly be explained in uncertainty due to the American presidential election and patience in how this would affect the talks (Liang, 2018). The fourth meeting broke this uncertainty when new proposals were up for discussion. In the meeting that took place at the end of July, the U.S. softened its position on the matter of North Korean peaceful nuclear activities, and agreed to not invade the state. Following this, new talks looked more promising, and the fourth meeting continued in September. A breakthrough was finally in place when North Korea agreed to abandon all nuclear weapons in exchange for an American and South Korean promise not to employ nuclear weapons on the peninsula either (Liang, 2018).

In terms of military aggression, the 2004 trend continued throughout 2005 with only one provocation (CSIS, 2020). Interestingly, this provocation was a missile launch that occurred in May, only a couple of months before the meeting. In 2004, the one provocation that was witnessed occurred months after the talks. It is possible that this is due to the uncertainty of the American election and the undetermined road ahead. But the most obvious observation from both the third and fourth rounds are that North Korea is especially calm compared to the level of aggression before and during the year 2003. As the talk continued, it seems like it had a restraining effect on North Korean aggression. There are also no strictly conventional provocations from 2004 to 2005 except for these two missile launches (CSIS, 2020).

As seen above, the following months of 2005 go by without any further provocations. During this time, the fifth round of talks begin. This round was separated into sessions from November 2005 to February 2007. The February meeting was supposed to further plan the implementation of the agreement in the fourth round of talks. However, it did not have a

breakthrough in the first session. The improved negotiations deteriorated into 2006 after further sanctions were implemented on North Korea (Liang, 2018). As already discussed in the previous chapter, 2006 was a year of nuclear progression for North Korea. 2006 was the year of the first nuclear test, as well as the first ICBM launches (CSIS, 2020). Although they both failed, it strongly opposes the previous behaviour during the six-party talks.

How can this be explained by diplomacy and negotiations? A possible explanation might be that the nuclear test and new ICBM provocations can be seen as a demonstration of dissatisfaction with the six-party talks. Which also explains the North Korean boycott in 2009. Considering the topic of the six-party talks, it would also be logical that the provocations were of a missile and nuclear type, and not conventional.

The sixth round resumed at the beginning of 2007. While North Korea committed to shut down and seal nuclear facilities, Japan, and the U.S. committed to normalise relations. This was a more precise plan than what had previously been discussed, including a date for the upcoming sixth meeting (Liang, 2018).

The sixth meeting that took place in March 2007 showed to be very vulnerable. Further implementation of the agreements in the previous meetings showed to be difficult and time-consuming. Multiple sessions of talks occurred throughout 2008 without any consensus (Liang, 2018). During these wobbly talks, North Korean aggression kept steady from 2006-2008. Missile and nuclear provocations remained at a frequency of three each year. Leading up to the boycott of the six-party talks, and a new nuclear test in 2009, North Korea remained relatively aggressive throughout the six-party talks (CSIS, 2020).

Considering the topic of these diplomatic meetings, missile and nuclear provocations can be assumed to have been one of the most provocative categories for North Korea to employ, making this behaviour very aggressive. The six-party talks show signs of both limitations on North Korean aggression, and increased aggression. From 2004 to 2005, provocations seem to have been limited because of the patience and progress in diplomatic talks, but the talks from 2006-2009 seem to have bolstered North Korean aggression. On another note, this aggression is largely expressed through missile and nuclear provocations. Conventional provocations only occurred in 2003 and 2004. It might be due to the time of developing a nuclear arsenal. But after looking at the six-party talks in relation to nuclear and missile provocations, it is likely that these failed talks have further motivated the development of

nuclear weapons, and generated incentives to conduct missile and nuclear provocations instead of conventional provocations.

6.2.3 The Joint Military Exercises

Joint military exercises between South Korea and the U.S. are supposed to provide a framework for collective actions (Ho Chung, 2020). They are also a part of the conventional deterrence and a symbol of the commitment to defend South Korea. Two exercises are usually performed annually: the spring exercise Foal Eagle, and the autumn exercise Ulchi Freedom (Engman, 2018, p. 1). For North Korea, these exercises generate fear and insecurity, and have therefore been threatening and sometimes aggressive in relation to these events (Engman, 2018, p. 3). One might therefore think that these exercised generate aggression in terms of belligerent rhetoric (Engman, 2018, p. 3; CSIS, 2016b). However, CSIS finds in their study that these exercises do not provoke North Korea. By examining North Korean provocations in relation to the past twelve Foal Eagle exercises from 2005-2016, the findings are that it does not provoke North Korean aggression. Whether the relationship between the U.S. and North Korea has been positive or negative seems to affect how North Korea would respond to the military exercises. The analysis does only investigate behaviour around the Foal Eagle exercises because it is the most extensive one (CSIS, 2016b; CSIS, 2016a).

The findings of the CSIS analysis implies that diplomatic relations should have more influence on North Korean aggression than military exercises. Following this logic, we should expect an increasingly aggressive North Korea around the exercise in 2009 than, for example, in 2018. In 2009, the six-party talks reached an end on a bad note. The observations tell us that North Korea was indeed more aggressive in 2009 when the six-party talks were boycotted. Observations from the CSIS database on North Korean provocations tell us that 2009 was a year filled with severe provocations ranging from multiple missile-launches, to a nuclear test and vessel and territorial infringements (CSIS, 2020).

In the analysis of the military exercises, the relationship between the U.S. and North Korea is also described as negative in 2009. It complies with the findings that when the relationship is bad, provocations around the exercises are also more aggressive. An example of where U.S-North Korean relations are good is in 2007. As discussed in two sections above: both an Inter-Korean summit, and the six-party talks took place in 2007 (Davi-West, 2018, p. 145; Liang, 2018). During this year, the dataset tells us that there are three provocations, which is low

compared to the 2009 aggression (CSIS, 2020). This would be an interesting aspect to investigate in future research.

6.3 Summary

This chapter has briefly looked into other possible explanations, or contributing factors to explaining North Korean military aggression. Leader type is likely to have had a small effect on military aggression because we might assume a sort of path dependency starting with Kim Il-Sung. Furthermore, it is hard to distinguish between the effects of the personality of the leader and nuclear development as they all fall under different stages of nuclear progression within different geopolitical landscapes. Diplomacy seems to have had a calming impact on North Korean military behaviour in a temporary manner. The Inter-Korean summits underscore this. The six-party talks also had very alternating outcomes, but culminated in aggression after the last meeting in 2008.

It is likely that the Inter-Korean summits had more of a calming effect than the six-party talks due to North Korea`s long tradition of wanting the U.S. out of the business on the Korean peninsula. Overall, diplomacy seems to affect aggression in small temporary intervals, but often lead to more aggression post diplomacy. The military exercises that are often assumed to be provocative, seem to be traced back to diplomatic relations as well. It is not possible to conclude that diplomatic talks, leader characteristics, and joint military exercises can explain the overall trend of North Korean conventional aggression alone, but it is likely that it has explanatory power at certain points in time.

7.0 Conclusion

This thesis has investigated North Korean conventional military behaviour in relation to nuclear weapons development. The research question was:

> Does North Korea`s nuclear weapons development embolden the state`s conventional military behaviour?

Much of the previous research on nuclear weapons states have focused on changes in behaviour after nuclear acquisition (Snyder, 1965; Bell, 2015; Narang, 2014) but by investigating conventional military behaviour in four stages of nuclear weapons development, the analysis has sought to empirically explain the gradual change in North Korean behaviour over time.

The findings of the analysis are that North Korea has not become more conventionally aggressive as a result of nuclear weapons development. On the contrary, conventional aggression has gradually decreased in progressive steps of nuclear weapons development.

First, the analysis found that conventional aggression is at its highest in the pre-nuclear program phase. With its conventional capabilities, Pyongyang committed to an aggressive strategy towards South Korea and the Unites States, possibly through conventional deterrence by punishment. This aggressive strategy is what we may call conventional brinkmanship.

As soon as a program of reactors and technology was introduced, and missile provocations begin, conventional aggression started to decrease. This trend can likely be explained through the favouritism of nuclear development at the expense of conventional capabilities. It is plausible that a state like North Korea that faces severe threats to its regime and a deteriorating economy would have to carefully prioritise its military spending.

The trend of favouriting nuclear weapons seems to have been further consolidated in the third phase, where the first nuclear test was conducted. While conventional provocations kept decreasing, nuclear and missile provocations started dominating the military aggression. It indicates a choice of relying on nuclear development instead of advancing conventional capabilities, and is best explained as a strategy of compensating conventional inferiority with nuclear weapons. As Bruusgaard (2021) pointed out, due to the growing ambiguity on nuclear and conventional weapons, this choice is not necessarily unproblematic. It is possible to choose the path of conventional advancement because these capabilities can deter nuclear

weapons. However, the analysis found that nuclear compensation strategy would not necessarily be irrational in the North Korean case.

As the path of nuclear dependency is further pursued by developing an arsenal, conventional aggression decreased to the point where conventional provocations were almost abandoned. During this phase, South Korea also started its advancement of conventional capabilities, which meant that Pyongyang needed to design around these capabilities. It is plausible that the provocations in the last phase would be of a nuclear and missile character because it would need to pose the capabilities that can actually deter conventionally advanced South Korea.

The analysis does not only find that conventional aggression decreases in gradual steps of nuclear development. It also finds that nuclear and missile aggression increases simultaneously. This means that the overall aggression does not decrease, but changes in character from conventional to nuclear and missile. This is best explained through the idea of a change from conventional brinkmanship, to nuclear brinkmanship. Brinkmanship as a term describes an aggressive strategy of pushing the limits to the brink of war. As nuclear development went on, this brinkmanship remains, but does change in character. Therefore, the answer to the research question is that conventional aggression has likely decreased due to an increase in nuclear and missile aggression.

In addition to the investigation of nuclear weapons development`s effect on conventional military aggression, the thesis also explored a few other possible explanations. Diplomatic talks, leader characteristics, and the U.S-South Korean joint military exercises were briefly discussed. The three leaders of North Korea have all pursued the goal of acquiring a nuclear deterrent. It is possible that their individual personalities have affected conventional aggression to some extent. In a similar way, diplomacy shows to have affected North Korean aggression in temporary manners. The joint military exercises are better explained through diplomatic relations. It is likely that these three factors have influenced North Korean aggression, but neither is sufficient in explaining the overall trend of decreasing conventional aggression on its own.

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