

Asan Institute Releases a report titled “Implications of Perfect Deterrence Theory for South Korea”

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SEOUL, September 17th, 2020 – The Asan Institute for Policy Studies (<http://en.asaninst.org/>) presents “Implications of Perfect Deterrence Theory for South Korea.” Perfect Deterrence Theory has been developed as an alternative to classical deterrence theory by Zagare and Kilgour. Its predictions are more in agreement with empirical evidence and rule out logical inconsistencies. For these reasons, it has been chosen to be the basis of our study. The theory has provided a framework for exploring South Korea’s deterrence against North Korea. The study sought to draw out valuable implications for South Korea. What can this deterrence theory tell us about strengthening the security of South Korea and continuing to preserve peace and stability in the face of North Korea’s growing nuclear threat? The report consists of the following chapters:

- Chapter 1 provides a brief overview of Perfect Deterrence Theory. It lists some advantages of this theory over classical deterrence theory. One distinctive and powerful feature is Zagare and Kilgour’s imposition of the ‘*Perfectness*’ condition which eliminates solutions (i.e., Nash Equilibria) with logical inconsistencies.
- Chapter 2 reviews basic concepts of Perfect Deterrence Theory. Two basic components ‘*capability*’ and ‘*credibility*’ which play critical roles in the theory are defined and explained using the Korean War (1950), the famous battle of Myeongyang (1597) and the two volatile incidents (2010) that occurred between North and South Korea as illustrative examples. The definitions of type ‘*Soft*’ and type ‘*Hard*’ (players) are given and the incomplete information game is explained using these types.
- Chapter 3 introduces the *Generalized Mutual Deterrence Game* in which each side takes the role of a challenger trying to take a step towards defeating the other side when logic dictates it. Among all solutions found by Zagare and Kilgour, the *Sure-Thing Deterrence Equilibrium* is examined in detail. Some policy implications from the theory are as follows. We caution against, for example, blindly increasing North Korea’s utility for the *Status Quo* in the absence of genuine progress in North Korea’s denuclearization. The best way to maintain deterrence is to decrease North Korea’s utility for *Conflict*. This necessitates a show of force at times, which could include a display of new high-tech F35A Joint Strike Fighters and the establishment of ‘*Decapitation*

Unit. Furthermore, South Korea needs to maintain high credibility (i.e., its willingness to fight as perceived by North Korea). Some noticeable failures in the South Korean military in recent times which lower its credibility are noted.

- Chapter 4 introduces the *Unilateral Deterrence Game* in which North Korea, a challenger, seeks to upset peace and stability (i.e., the *Status Quo*) while South Korea, a defender, tries to keep it. Our main focus is on the *Certain Deterrence Equilibrium* among all solutions found by Zagare and Kilgour. As stated, South Korea must avoid funding, in effect, Kim Jong-un and his trusted super-elites' luxurious lifestyles. The wages of Korean workers at the Kaesong Industrial Complex can be easily funneled to support North Korea's nuclear weapons and ballistic missile programs, which undermines deterrence. Instead, South Korea should again focus on decreasing North Korea's utility for *Conflict*. One way of achieving this is to strengthen both active and passive defense. For example, the U.S. THAAD system in Seongju, the only one of its kind on the Korean Peninsula, must be upgraded and integrated with the Patriot systems in operation without delay. Despite recent disputes between South Korea and Japan, both countries share the same core values - freedom, democracy, respect for human rights and the rule of law. They must work closely to face up to North Korea's challenges and beyond.

The study concludes by stressing the importance of maintaining high credibility on South Korea's part as many deterrence failures can be traced to low credibility. Also, South Korea is *not capable* of competing against North Korea in the nuclear arena. For successful deterrence, *capability* is absolutely necessary but not sufficient. As a consequence, the United States needs to provide concrete assurance to its allies in this region against the growing North Korean nuclear threat.

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