Appendix for
"Strategies of Extended Deterrence: How States Provide the Security Umbrella"

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Case/Period	Main Target(s)	Likelihood of Enemy's Quick Victory		Type of Threat Posed to Client by Enemy	Predicted Strategy	Actual Strategy
		Local Combat Power (Force) Ratio (Potential Attacker(s) vs. (Frontline) Client(s))	Likelihood			
US to ANZUS (Australia)* (1951-1991)	Soviet Union	Ratio higher than 3:1 (3.49:1 (1951)/ 4.93:1 (1986))	High	Non-Existential	Forward Conventional Deployment	Nuclear Defense Pact
US to ANZUS (Australia) (1991-2012)	Unclear	Not Available	-	-	-	-
US to ANZUS (Australia) (2012-present)	China	Ratio higher than 3:1 (5.80:1)	High	Non-Existential	Forward Conventional Deployment	Nuclear Defense Pact
US to Iran (1959-1979)	Soviet Union	Ratio higher than 3:1 (10:88:1)	High	Existential	Forward Nuclear Deployment	Conventional Defense Pact
US to Japan** (1951-1972)	Soviet Union	Ratio higher than 3:1 (3.31:1)	High	Existential	Forward Nuclear Deployment	Forward Nuclear Deployment
US to Japan (1972-1991)	Soviet Union	Ratio lower than 3:1 (1.82:1)	Low	Existential	Nuclear Defense Pact	Nuclear Defense Pact
US to Japan (1991-2010)	Unclear	Not Available	-	-	-	-
US to Japan (2010-present)	China	Ratio lower than 3:1 (2.45:1)	Low	Non-Existential	Conventional Defense Pact	Nuclear Defense Pact
US to NATO-Europe (Benelux Countries (1949)/ West Germany (1955)) (1949-1991)***	Soviet Union + Satellites	Ratio higher than 3:1 (9.43:1 (1949)/ 6.26:1 (1955))****	High	Existential	Forward Nuclear Deployment	Forward Nuclear Deployment
US to NATO-Europe (1991-2014)	Unclear	Not Available	-	-	-	-
US to NATO-Europe (Baltic States) (2014-present)*****	Russia	Ratio higher than 3:1 (21.83:1)	High	Existential	Forward Nuclear Deployment	Forward Nuclear Deployment
US to Pakistan (1959-1972)	India	Ratio lower than 3:1 (2.48:1)	Low	Non-Existential	Conventional Defense Pact	Conventional Defense Pact
US to Pakistan (1972-1998)	India	Ratio higher than 3:1 (3.75:1)	High	Non-Existential	Forward Conventional Deployment	Conventional Defense Pact
US to Panama (1977-1999)	Soviet Union	Ratio higher than 3:1 (53.54:1)	High	Non-Existential	Forward Conventional Deployment	Forward Conventional Deployment
US to Philippines (1951-1974)	Soviet Union	Ratio higher than 3:1 (16.02:1)	High	Non-Existential	Forward Conventional Deployment	Forward Conventional Deployment
US to Philippines (1974-1992)	China	Ratio higher than 3:1 (7.25:1)	High	Non-Existential	Forward Conventional Deployment	Forward Conventional Deployment
US to Philippines (1992-present)	China	Ratio higher than 3:1 (6.38:1)	High	Non-Existential	Forward Conventional Deployment	Conventional Defense Pact

US to Rio Pact (Caribbean Member States) (1947-1991)	Soviet Union	Ratio higher than 3:1 20.10:1 (1947)/63.83:1 (1962)/ 40.43:1 (1967)/ 59.45:1 (1982))	High	Non-Existential	Forward Conventional Deployment	Conventional Defense Pact
US to Rio Pact (Caribbean Member States) (1991-present)	Unclear	Not Available	-	-	-	-
US to SEATO (1954-1977) (Thailand + Philippines)	China	Ratio higher than 3:1 (3.51:1)	High	Non-Existential	Forward Conventional Deployment	Forward Conventional Deployment
US to South Korea (1953-1991)	North Korea + China	Ratio higher than 3:1 (13.41:1)	High	Existential	Forward Nuclear Deployment	Forward Nuclear Deployment
US to South Korea (1991-present)	North Korea	Ratio lower than 3:1 (0.69:1)	Low	Existential	Nuclear Defense Pact	Nuclear Defense Pact
US to Spain (1963-1970)	Soviet Union + Satellites	Ratio higher than 3:1 (11.10:1)	High	Existential	Forward Nuclear Deployment	Forward Nuclear Deployment
US to Spain (1976-1981)	Soviet Union	Ratio higher than 3:1 (5.07:1)	High	Non-Existential	Forward Conventional Deployment	Forward Conventional Deployment
US to Taiwan (1954-1974)	China	Ratio higher than 3:1 (4.71:1)	High	Existential	Forward Nuclear Deployment	Forward Nuclear Deployment
US to Taiwan (1974-1979)	China	Ratio higher than 3:1 (7.17:1)	High	Existential	Forward Nuclear Deployment	Forward Conventional Deployment
US to Thailand (1977-Present)	Vietnam	Ratio lower than 3:1 (0.48:1)	Low	Non-Existential	Conventional Defense Pact	Conventional Defense Pact
Soviet Union to China (1950-1960)	Taiwan+ US	Ratio lower than 3:1 (1.35:1)	Low	Existential	Nuclear Defense Pact	Nuclear Defense Pact
Soviet Union to China (1960-1964)	Taiwan+ US	Ratio lower than 3:1 (0.91:1)	Low	Non-Existential	Conventional Defense Pact	Conventional Defense Pact
Soviet Union to Mongolia (1966-1991)	China	Ratio higher than 3:1 (343.94:1)	High	Existential	Forward Nuclear Deployment	Forward Nuclear Deployment
Soviet Union to North Korea (1961-1991)	South Korea+ US	Ratio higher than 3:1 (40.38:1)	High	Existential	Forward Nuclear Deployment	Conventional Defense Pact
Soviet Union to Warsaw Pact (1955-1991)	NATO	Ratio higher than 3:1 (7.63:1)	High	Existential	Forward Nuclear Deployment	Forward Nuclear Deployment
Russia to CST/CSTO (Armenia (1992)/ Belarus (1994)) (1992-present)	NATO	Ratio higher than 3:1 (22.81:1)(18.86:1)	High	Non-Existential	Forward Conventional Deployment	Forward Conventional Deployment
Russia to Turkmenistan (1992-2002)	Afghanistan	Ratio lower than 3:1 (0.25:1)	Low	Non-Existential	Conventional Defense Pact	Conventional Defense Pact

Table A-1. The Universe of Cases

Note: **Green**: Successfully predicted (1 point), **Orange**: Partially predicted (.5 point), **Red**: Unsuccessfully predicted (0 point)

- Partially predicted cases denote cases that are successfully predicted in terms of 'strategy adoption' but unsuccessfully predicted in terms of 'strategy

implementation.'
- A state(s) in parentheses in the first column denotes a frontline client state(s) of multilateral alliances (for more details on this point, see p. 14 below).

ANZUS: Australia, New Zealand, and United States Security Treaty
Benelux Countries: Belgium, the Netherlands, and Luxembourg
Baltic States: Estonia, Latvia, and Lithuania
Rio Pact: Inter-American Treaty of Reciprocal Assistance
Caribbean Member States of the Rio Pact: Cuba, Dominican Republic, and Haiti (1947), - Cuba (1962), + Trinidad & Tobago (1967), + Bahamas (1982)
SEATO: Southeast Asian Treaty Organization
CST: Collective Security Treaty
CSTO: Collective Security Treaty Organization (CST was a precursor to CSTO)

* In 1984, New Zealand declared a nuclear-free zone in its territorial waters and refused to allow US nuclear-powered and nuclear-armed ships to visit its ports. In response, the US withdrew its security obligations to New Zealand in 1986. Thus, I calculate the combat-power ratio for 1986 without considering New Zealand's military power.

** Japan's data for the period between 1946-1951 is not included in the most recent version of the *National Material Capabilities* dataset (version 5.0). The reason for this is that Japan was occupied by the US from 1945 to 1952. Japan's data is available from 1952 through the present. Therefore, I employ data for 1952 in order to calculate the local-combat-power ratio of the Japan-Soviet Union dyad for this sub-period.

*** In the case of multilateral security alliances like NATO and CSTO, the frontlines vary more often than bilateral security arrangements due to new members' entry to and existing members' withdrawal from the alliances. The changes in membership also result in the distance between the enemy and the frontline clients. To keep up with these changes, I disaggregate a given multilateral alliance case into sub-time frames and measure local-combat-power ratios at the disparate times. In the case of the Warsaw Pact, Albania withdrew from the pact in 1968. Due to its southern location, Albania's withdrawal does not affect my measurement for the capital-to-capital distance.

**** West Germany was not yet an official member of NATO at its foundation in 1949. To wit, it was not yet an independent country, but an occupied country. West Germany's official entry to NATO happened in 1955. Because of this, the COW National Material Capability dataset does not contain the 1949 data for West Germany. History shows, however, that West Germany was an explicit client protected by the US at the time. Therefore, this study calculates a combat-power ratio for 1949 using occupied West Germany's capital, Bonn, as a baseline to measure 'an intercity distance.'

***** The Russian military intervention in Ukraine and Russia's invasion of Crimea happened in 2014. Therefore, 2014 was a critical juncture. The hostilities between NATO and a resurgent Russia began in earnest. The most recent version of the National Material Capabilities dataset (version 5.0) covers years up to 2012. Therefore, I employ data for 2012 instead of that for 2014 to calculate a local-combat-power ratio for this sub-case (2014-present). As of 2014, the Baltic states (Estonia, Latvia, and Lithuania) were frontline states of NATO in that they shared borders with Russia.

§ Clients of Multilateral Alliances as a Single Unitary Actor

In this article, I posit that a nuclear patron treats multiple clients of a multilateral alliance as a single unitary client. Basically, the core principle that underpins multilateral alliances is *collective defense*, which means that "an attack against one Ally is considered as an attack against all Allies."[1] That is, in the case of multilateral alliances, armed aggression against an individual member state is regarded as an attack against the entire security alliance.

In this respect, the US has not viewed European-NATO clients as independent, individual clients. Instead, it has viewed them as a single unitary actor, as they all share a common goal and destiny. Consequently, the US has taken a holistic approach when designing and providing a security umbrella over European clients. For example, appraising a security environment surrounding NATO, the previous US military and intelligence reports focused the balance of

[1] Collective defence - Article 5, North Atlantic Treaty Organization Website, https://www.nato.int/cps/en/natohq/topics_110496.htm.

power between the Communist bloc (the Warsaw Pact) as a whole and *combined* European-NATO forces opposite to the aggregated Communist forces.[2] Similarly, during the Cold War, the reason why the eastern part of West Germany was strategically important was not because it was the front area of West Germany, but because it was the front area of NATO-Europe as a whole. Furthermore, the US deployed extended deterrent assets in NATO-Europe based on a broad geographical understanding, such as the European continent's "Central Front," "Northern Front," and "Southern Front," rather than those in individual clients' territories. This holistic and integrated approach remains the same today. For example, it would be inadequate to say that the US currently provides 27 distinct security umbrellas over 27 independent European clients. Instead, it would be reasonable to say that the US provides a comprehensive security umbrella over NATO-Europe as a whole.

Because of these reasons, this paper regards distinct clients forming a multilateral alliance as a single unitary actor.

[2] For example, see "S.G. 161/6, The Soviet Bloc Strength and Capabilities, 1954-1958," 22 March 1954, NATO Archives at NATO Headquarters in Brussels, Belgium (hereafter, NATOA); S.G. 161/9, (Part II), "The Soviet Bloc Strength and Capabilities, 1956-1960,"16 March 1956, NATOA; CIA, NIE 11-14-79, "Warsaw Pact Forces Opposite NATO," Document no. 0000278537, CIAERR.

Summary Statistics & Empirical Analysis

- Total N= 30

* Four "unclear" cases—1) US to ANZUS (Australia) (1991-2012), 2) US to Japan (1991-2006), 3) US to NATO-Europe (1991-2014), and 4) US to Rio Pact (1991-today)—are not considered when counted.

- Average Lifespan of Strategies: **28.92** years
(US: **32.16** years, Soviet Union/Russia: **20.57** years)

The average duration of strategies:

Case	Period	Adopted Strategy	Duration
US to ANZUS	1951-present	Nuclear Defense Pact	70 years
US to Iran	1959-1979	Conventional Defense Pact	20 years
US to Japan	1951-1972	Forward Nuclear Deployment	21 years
US to Japan	1972-present	Nuclear Defense Pact	49 years
US to NATO-Europe	1949-present	Forward Nuclear Deployment	72 years
US to Pakistan	1959-1998	Conventional Defense Pact	39 years
US to Panama	1972-1998	Forward Conventional Deployment	22 years
US to Philippines	1951-1992	Forward Conventional Deployment	41 years
US to Philippines	1992-present	Conventional Defense Pact	29 years
US to Rio Pact	1947-1991	Conventional Defense Pact	44 years
US to SEATO	1954-1977	Forward Conventional Deployment	23 years
US to South Korea	1953-1991	Forward Nuclear Deployment	38 years
US to South Korea	1991-present	Nuclear Defense Pact	30 years
US to Spain	1963-1970	Forward Nuclear Deployment	7 years
US to Spain	1976-1981	Forward Conventional Deployment	5 years
US to Taiwan	1954-1974	Forward Nuclear Deployment	20 years
US to Taiwan	1974-1979	Conventional Defense Pact	5 years
US to Thailand	1977-2021	Conventional Defense Pact	44 years
Total N=18	Sum: 579 years	The average lifespan of US strategies: **32.16** years (579/18)	
Soviet Union to China	1950-1960	Nuclear Defense Pact	10 years
Soviet Union to China	1960-1964	Conventional Defense Pact	4 years
Soviet Union to Mongolia	1966-1991	Forward Nuclear Deployment	25 years
Soviet Union to North Korea	1961-1991	Conventional Defense Pact	30 years
Soviet Union to Warsaw Pact	1955-1991	Forward Nuclear Deployment	36 years
Russia to CST/CSTO	1992-present	Forward Conventional Deployment	29 years
Russia to Turkmenistan	1992-2002	Conventional Defense Pact	10 years
Total N=7	Sum: 144 years	The average lifespan of Soviet/Russian strategies: **20.57** years (144/7)	
Total N=25	Sum: 723 years	The average lifespan of strategies: **28.92 years** (723/25)	

Table A-2. Average Lifespan of Extended Deterrence Strategies

As Table A-2 shows, the average lifespan of nuclear patrons' extended security commitments is 28.9 years (US: 32.2 years, Soviet Union/Russia: 20.6 years). These figures are certainly shorter than expected in light of the alleged static feature of extended security commitments. Admittedly, the US's security commitments have lasted longer than those of the Soviet

Union/Russia. That said, the difference between the two values is only about 11.6 years, implying that US security guarantees have not been remarkably static relative to other patrons.

- Predictive power: **20/30 (66.6%)**

- Summary of Outcomes

		Assurance Factor		
		Existential Threat	Non-existential Threat	
Deterrence factor	High	Forward Nuclear Deployment 7.5/11 (68.2%)	Forward Conventional Deployment 6/11 (54.5%)	13.5/22 (68.2%)
	Low	Nuclear Defense Pact 2.5/3 (83.3%)	Conventional Defense Pact 4/5 (80%)	6.5/8 (81.25%)
		9.5/14 (67.9%)	10/16 (62.5%)	Total: 20/30 (66.7%)

Table A-3. Cross-tabulation of Predictive Power
*Note: A/B: A: the number of successfully predicted cases, B: the number of predicted cases

Table A-3 shows my theory's predictive power per strategies. My theory has particularly weak predictive power when "forward conventional deployment" is a predicted strategy (54.5%)—which is the sole situation where a predictive power is lower than the theory's overall explanatory power (66.7%). The reason for this result remains unknown. One plausible explanation is that the conditions under which a patron is expected to adopt a strategy of "forward conventional deployment" might be different from reality. For example, when adopting "forward conventional deployment," a patron might use a different extended deterrence calculus. Future scholarship should examine whether other factors influence a patron's behaviors in the cases of "forward conventional deployment."

The figures reported in Table A-3 are further disaggregated and presented in Table A-4 as follows.

Predicted	Actual	Percentage
Forward Nuclear Deployment (N=11)	Forward Nuclear Deployment	68.2% (7.5/11)
	Nuclear Defense Pact	0%
	Forward Conventional Deployment	0%
	Conventional Defense Pact	27.3% (3/11)
Nuclear Defense Pact (N=3)	Forward Nuclear Deployment	0%
	Nuclear Defense Pact	83.3% (2.5/3)
	Forward Conventional Deployment	0%
	Conventional Defense Pact	0%
Forward Conventional Deployment (N=11)	Forward Nuclear Deployment	0%
	Nuclear Defense Pact	18.2% (2/11)
	Forward Conventional Deployment	54.5% (6/11)
	Conventional Defense Pact	27.3% (3/11)
Conventional Defense Pact (Total N=5)	Forward Nuclear Deployment	0%
	Nuclear Defense Pact	20% (1/5)
	Forward Conventional Deployment	0%
	Conventional Defense Pact	80% (4/5)

Table A-4. Percentages of Successfully Predicted Cases and Outliers per Strategies
Note: Green: successfully predicted cases, Red: extreme outliers, Yellow: moderate outliers

In Table A-4, it is worth focusing on the percentage of time that we observe completely opposite strategies, what I call "extreme outliers", to my theory's predicted strategies (e.g., i) predicted strategy: forward nuclear deployment, actual strategy: conventional defense pact, and vice versa. ii) predicted strategy: nuclear defense pact, actual strategy: forward conventional deployment, and vice versa). High percentages of "extreme outliers" indicate that my theoretical setting may be significantly problematic in the first place, compared to those of "moderate outliers (e.g., predicted strategy: forward nuclear deployment, actual strategy: nuclear defense pact, and vice versa). The percentages of "extreme outliers" to four groups of predicted strategies are "27.3%," "0%," "18.2%," and "0%," respectively. These figures show that "extreme outliers" are overall rare relative to "moderate outliers," indicating that my theoretical framework is not fatally flawed.

Collecting the Universe of Cases

I collect the "universe of cases" based on the *Alliance Treaty Obligations and Provisions* (ATOP) dataset (version 4.01).[3] The ATOP dataset defines an alliance as "a formal agreement among independent states to cooperate militarily in the face of potential or realized military conflict."[4] The ATOP dataset classifies all alliances into the following five types: "defense pacts," "offense pacts," "neutrality pacts," "nonaggression pacts," and "consultation pacts." In this regard, the ATOP dataset states that "[t]he obligations are not mutually exclusive, and our coding scheme allows for a single agreement to contain more than one of these primary obligations simultaneously, which is very common in practice."[5] Accordingly, all cases included in the dataset are coded as either one or more than one of the five types that may apply to individual cases.[6]

Based on the ATOP dataset, first, I sort out all cases of alliances that include either the US or the Soviet Union/Russia (global nuclear powers) as a member state. To elucidate, nuclear-armed states can be disaggregated into two sub-groups: "global nuclear powers (nuclear superpowers)" and "regional nuclear powers." Drawing this distinction is useful because in each sub-group there are completely different mechanisms, dynamics, and rules that are likely to come into play when extended deterrence strategies are adopted. Global nuclear powers denote states able to project their nuclear and conventional forces over multiple non-nuclear clients simultaneously for their defense, no matter where they are located in the world. Following the definition, this study posits that historically there have been only two global

[3] The Alliance Treaty Obligations and Provisions (ATOP) Project, The dataset is available at http://www.atopdata.org/data.html.
[4] Brett Ashley Leeds, "Alliance Treaty Obligations and Provisions (ATOP) Codebook (version 4.0)," August 28, 2018. The codebook is available at http://www.atopdata.org/documentation.html.
[5] Ibid., 11.
[6] For example, the US-South Korea alliance (ATOP ID: 3220) is classified in the ATOP dataset as a defense pact, nonaggression pact, and a consultation pact. In contrast, the Soviet-Mongolian alliance (ATOP ID: 3535) is classified only as a defense pact. Both of them are included in the universe of cases of this study.

nuclear patrons: the US (late 1940s-today) and the Soviet Union/Russia (early 1950s-today). In contrast, regional nuclear powers (e.g., United Kingdom, France, and China) can barely manage to defend themselves, and they cannot defend others by extending deterrence due to their weak power projection capabilities, small nuclear arsenals, and limited delivery technologies. Relatedly, Kenneth Waltz pointed out, "the problem of stretching a deterrent [to protect allies] … is not a problem for lesser nuclear states. Their problem is not to protect others but to protect themselves." [7] Accordingly, regional nuclear powers' extended security commitments are excluded.

Second, among the selected cases of *nuclear* alliances, I choose only the cases that are coded to have defense commitments between member states. To wit, I collect cases that are coded as a defense pact, regardless of whether a given case is coded solely as a defense pact or it is coded as a defense pact *and* other types. In this regard, the ATOP dataset defines defense commitments as "promises to assist an ally militarily in the event of attack on the ally's sovereignty or territorial integrity."[8] Given the purpose of extended deterrence—to protect a client(s) from external threats, a given alliance treaty should contain the term that stipulates defense commitments between alliance members (virtually, a patron's security commitments to a client(s)). Therefore, the second sorting process is logically valid.

Third, as mentioned on page 20 of the article, this study is only interested in extended deterrence by *global* nuclear powers, which denote nuclear-armed states able to project their nuclear and conventional forces over multiple non-nuclear clients simultaneously for their defense, no matter where they are located in the world. However, states generally need additional years after their nuclear acquisition to obtain capabilities to secure sufficient nuclear

[7] Kenneth W. Waltz, "More May Be Better," in Scott D. Sagan and Kenneth N. Waltz, *The Spread of Nuclear Weapons: An Enduring Debate*, 3rd ed. (New York: W.W. Norton & Co., 2013): 26.
[8] Ibid. Also the definitions of other types (offense pacts, neutrality pacts, nonaggression pacts, and consultation pacts) are available in the ATOP dataset codebook. See, ibid., 11-12.

warheads and deliver their nuclear warheads to targeted destinations (e.g., distant battlefields and allies' territories). In this respect, I add a three-year time-lag period after the first year of their nuclear developments, which are "1945" (the US) and "1949" (the Soviet Union), in order to capture some time required to secure a qualitatively and quantitatively stable nuclear arsenal and delivery platforms.

Thus, cases of the US extended deterrence "from 1948 onwards" and those of the Soviet Union "from 1952 onwards" fall within the scope of this study. Based on this consideration, I exclude cases of extended deterrence by the two global nuclear states that began *prior to* the time frames from the analysis. This is a proper approach in that the absence/lack of sufficient capability to provide a nuclear umbrella over client states might have precluded the two nuclear patrons from adopting nuclear-level extended deterrence strategies, even if they had wanted to do so.

There are 20 cases in which the same client is a member state of more than one alliance with the same nuclear patron at the same time. For example, the US, Panama, and other states signed the Rio Pact on September 2, 1947, which is still in effect (still in force) today (ATOP ID: 3075). Additionally, on September 7, 1977, the US and Panama signed another distinct bilateral pact for the purpose of protecting the Panama Canal from external attack (ATOP ID: 3795).[9] The bilateral pact was terminated on December 31, 1999. During the overlapping years (1977-1999), therefore, the US's security umbrella over Panama was based on more than one alliance treaty. If this is the case, I examine the history of the overlapping alliances and judge whether later alliance treaties were signed for *distinct* purposes or if they were simply annexes of or closely associated with earlier alliances/treaties. Among all 20 overlapping cases, only three later alliances are coded as "distinct." Therefore, I leave the three distinct cases (US-

[9] In other words, this bilateral treaty is also classified as a "defense pact" in the ATOP dataset. See, ATOP Dataset Coding Sheet, ATOP ID: 3795.

Panama alliance, SEATO (x 2)), dropping the remaining 17 cases from the universe of cases. Refer to the full list of overlapping alliances below.

Earlier Alliance (years)	Later Alliance (years)	Overlapped Members	Distinct or Annexed/Associated?
Rio Pact (1947-present)	Organization of American States (1948-present)	23 members are identical	Annexed/Associated
Rio Pact (1947-present)	**US-Panama (1977-1999)***	**Panama**	**Distinct**
NATO (1949-present)	US-Turkey (1959-present)	Turkey	Annexed/Associated
ANZUS (1951-present)	**SEATO (1954-1977)****	**Australia, New Zealand**	**Distinct**
US-Philippines (1951-present)	**SEATO (1954-1977)*****	**Philippines**	**Distinct**
Warsaw Pact (1955-1991)	Soviet Union-East Germany (1964-1990)	East Germany	Annexed/Associated
Warsaw Pact (1955-1991)	Soviet Union-Poland (1965-1991)	Poland	Annexed/Associated
Warsaw Pact (1955-1991)	Soviet Union-Bulgaria (1967-1992)	Bulgaria	Annexed/Associated
Warsaw Pact (1955-1991)	Soviet Union-Hungary (1967-1991)	Hungary	Annexed/Associated
Warsaw Pact (1955-1991)	Soviet Union-Czechoslovakia (1970-1993)	Czechoslovakia	Annexed/Associated
Warsaw Pact (1955-1991)	Soviet Union-Rumania (1970-1991)	Rumania	Annexed/Associated
Warsaw Pact (1955-1991)	Soviet Union-East Germany (1975-1990)	East Germany	Annexed/Associated
CST/CSTO (1992-present)	Russia-Kazakhstan (1992-present)	Kazakhstan	Annexed/Associated
CST/CSTO (1992-present)	Russia-Uzbekistan (1992-present)	Uzbekistan	Annexed/Associated
CST/CSTO (1992-present)	Russia-Kyrgyzstan (1992-present)	Kyrgyzstan	Annexed/Associated
CST/CSTO (1992-present)	Russia-CIS Charter (1993-present)	All members are identical	Annexed/Associated
CST/CSTO (1992-present)	Russia-Tajikistan (1993-present)	Tajikistan	Annexed/Associated
CST/CSTO (1992-present)	Russia-Belarus (1997-present)	Belarus	Annexed/Associated
CST/CSTO (1992-present)	Russia-Armenia (1997-present)	Armenia	Annexed/Associated
CST/CSTO (1992-present)	Russia-Uzbekistan (2005-present)	Uzbekistan	Annexed/Associated

Table A-5. List of Overlapping Alliances
Source: ATOP Dataset
Note: Bold cases denote distinct cases.
* The US signed a bilateral pact with Panama for the protection of the Panama Canal from external attack, which was distinct from the US security commitment to the Rio Pact's client states in general. For more details, see the cases of the US extended deterrence to the Rio Pact and Panama below.
** SEATO was established to protect Southeast Asian member states from a threat from Communist China, which was irrelevant to the US security umbrella over Australia and New Zealand. For more details, see the cases of the US extended deterrence to the ANZUS and SEATO below.
*** SEATO was established to protect Southeast Asian clients as a whole from a threat from communist China. For more details, see the cases of the US extended deterrence to the Philippines and SEATO below.

This "choice-and-concentration approach" is effective in avoiding any potential problems that can derive from "double counting" (e.g., overrepresentation of certain cases and certain outcomes). Logically, this approach would be also appropriate. Even if a nuclear patron signs multiple treaties with the same client(s), the patron is likely to design its security umbrella over the client mainly based on the most salient alliance treaty due to limited resources and potential contradiction among different alliance treaties. Moreover, multiple treaties with the same client(s) are likely to be closely connected. For example, a nuclear patron often forms a

multilateral alliance with clients *and* signs additional bilateral pacts with them later individually. These behaviors are mainly designed to further embolden ties with clients. Thus, they are likely to be symbolic gestures to reassure clients. Or, the treaty(s) following an existing one is/are likely to be designed to revise or to supplement the previous one. For example, in 1964, the Soviet Union signed a bilateral pact with East Germany (ATOP ID: 3500)—9 years after the formation of the Warsaw Pact (ATOP ID: 3285). In 1975, the Soviet Union signed another bilateral pact with East Germany (ATOP ID: 3745)—with the previous two treaties still in effect. To sum up, multiple treaties with the same client are unlikely to be distinct and separate. If this is the case, I only pick up the most important and meaningful one among them.

Fourth, this study does *not* consider the cases in which nuclear patrons extended deterrence to nuclear clients. The notion, extended deterrence, was originally designed to protect *non*-nuclear client states from external threats.[10] Analysts have argued that the extended deterrence mechanism has played a pivotal role in suppressing nonnuclear states' ambitions for nuclear proliferations by reducing their incentives to possess independent nuclear weapons.[11] With this in mind, this study only considers the period during which a client remains a nonnuclear state in the cases of bilateral alliances. Simply put, this study excludes the period after a client's nuclear acquisition from the analysis.[12] In the same vein, this study also drops cases in which a nuclear patron begins to provide a security guarantee *after* a client's nuclear acquisition. For example, the US signed a bilateral pact with nuclear Israel in 1981 (ATOP ID: 3925), about 14

[10] John Simpson, "The Role of Security Assurances in the Nuclear Nonproliferation Regime," in ed. Jeffrey W. Knopf, *Security Assurances and Nonproliferation* (CA, Stanford: Stanford University Press, 2012), 57.
[11] For example, see, Philipp C. Bleek and Eric B. Lorber, "Security Guarantees and Allied Nuclear Proliferation," *Journal of Conflict Resolution* 58, no. 3 (2014), 429-54; Dan Reiter, "Security Commitments and Nuclear Proliferation," *Foreign Policy Analysis* 10, no.1 (2014), 61–80. Yuki Tatsumi, "Maintaining Japan's Non-Nuclear Identity: The Role of U.S. Security Assurances," in *Security Assurances and Nonproliferation*, 137-61.
Matthew Fuhrmann, "On Extended Nuclear Deterrence," *Diplomacy & Statecraft* 29, no. 1 (2018), 51-73.
[12] For example, in the case of the US extended deterrence to Pakistan, temporally, the case spans from 1959 to 1998 (the year of Pakistan's official nuclear armament), despite the fact that the US-Pakistan bilateral pact is still in force today (see, ATOP ID: 3355).

years after its nuclear armament.[13] Since the client was already a nuclear-weapon state when the alliance was formed, this case is not considered in this study. When it comes to multilateral alliances, I include cases in the analysis insofar as more than the majority of members are nonnuclear states, regarding them as a single nonnuclear actor. I posit that unless more than half of the clients are nuclear weapon states, a nuclear patron views them as a single, unitary, and nonnuclear actor. This approach is consistent with history. Despite the UK's and France's nuclear armaments, at least more than 85% of client states have been nonnuclear states (today, about 93% (2 out of 29 client states (, and 28 European client states)). Therefore, the US has formulated and executed its extended deterrence strategy towards NATO-Europe, adjusting primarily to the most *non*nuclear member states' security needs and circumstances. In short, the US has regarded European-NATO clients as a single *non*nuclear client.

Coding Rules for Local-Combat-Power Ratio (Potential Attacker(s) vs. Client)

➔ Proxy for the likelihood of potential attacker's quick victory over client

I expect that when a potential attacker's military power discounted by distance is three times higher than a client's military power, the potential attacker's troops will overrun the client troops swiftly. Otherwise, the likelihood of the enemy's quick victory will be low. This point draws on the "3:1 rule," which posits that "the attacker needs a local advantage of at least 3:1 in combat power to break through a defender's front at a specific point."[14] Applying this rule to my study, if a potential attacker's discounted (adjusted) military power is three times higher

[13] Steven Aftergood and Hans M. Kristensen, "Israeli Nuclear Weapons," *Federation of American Scientists*, January 8, 2007, https://fas.org/nuke/guide/israel/nuke/index.html.

[14] John J. Mearsheimer, "Assessing the Conventional Balance: The 3:1 Rule and Its Critics," *International Security* (Spring 1989), 54. Although there has been a heated debate over the validity of the rule, "American and Soviet military thinkers of the Cold War era have been strong proponents of the 3:1 rule." See, ibid., 60. What matters here is, regardless of whether the rule is right or wrong, it was broadly adopted in the past by top decision-makers of two global nuclear patrons.

than that of a client, it means that the enemy's invading forces are still three times more powerful than a client's defense forces at the moment when they reach the client's capital—its government and administrative center. This, therefore, implies that invading forces can arrive in a targeted capital swiftly without a big resistance, meaning the client is highly likely to quickly fall to the invader in the event of war. In short, local-combat-power ratio is employed as an indicator of the likelihood of the potential attacker's quick victory in the event of war.

Next, a potential attacker's military capabilities discounted by distance are measured using the formula suggested by Bueno de Mesquita, as follows.[15]

$$\textbf{Ajusted Military Power discounted by Distance} = \boldsymbol{Military\ Power\ (CINC\ Score)_t^{\log[(\frac{Intercapital\ distance}{miles\ per\ day})+(10-e)]}}$$

Thus, the local-combat-power ratio will be

Attacker's (potential attacker's) discounted military power (CINC Score) :

Defender's (client's) military power (CINC Score)

Importantly, a patron's troops already stationed in or near a client's territory are not considered when calculating this ratio because this approach allows us to better capture the patron's likely estimation of a client's *pure self-defense capabilities* against a potential attacker(s).[16] This approach is warranted in that a patron's extended deterrence strategy for a client's protection is likely to be the product of the patron's assessment of the client's pure self-defense capabilities against a potential attacker(s)'s offense capabilities. More details on the formula above are as follows:

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[15] Bruce Bueno De Mesquita, *The War Trap* (New Haven, CT: Yale University Press, 1981): 103-7. The strength point of this formula is that it can well capture the influence of "military capabilities" and "geography" on warfare– "the raw materials that would enter into any war." See, Michael O'Hanlon, "Stopping a North Korean Invasion," *International Security* 22, no. 4 (Spring 1998): 139.

[16] It is worth noting that my approach is different from previous studies where a patron's overseas troops stationed in the local area are considered when estimating the robustness of deterrence in given cases. A representative study that takes this alternative approach is John J. Mearsheimer, *Conventional Deterrence* (Ithaca, NY: Cornell University Press, 1983).

t: *t* refers to a given year

Military Power: I employ a state's *Composite Index of National Capability* (CINC) score as a proxy for a state's military power in a given year. The CINC score includes information on total population, urban population, energy consumption, iron and steel production, military manpower, and military expenditures. All the data are drawn from the *Correlates of War National Material Capabilities* dataset (version 5.0).[17]

Inter-capital (inter-city) distance: "Inter-capital distance" denotes the shortest distance (in miles) between the client's and the potential enemy's capitals: inter-capital distance. On the client's side, in case of multilateral alliances (e.g. NATO), I employ the most "frontline" client as a reference point. For instance, in the case of US extended deterrence to NATO, "Bonn (West Germany's capital)" becomes a reference point for the period between 1955-1991; and "Vilnius (Lithuania's capital)" becomes a reference point for today. Next, on the enemy side, in case the enemy of a client(s) is a multilateral alliance (e.g., the Warsaw Pact states opposing NATO-Europe), I employ the capital of the most 'frontline' enemy country as a reference point. Thus, "(East) Berlin, East Germany's capital," becomes a reference point of the Warsaw Pact states. To obtain the inter-capital distance, I employ the "Capital to Capital" option of *EUGene Software*.[18] In addition, however, for a single enemy "with a very large landmass," which are the US and the Soviet Union/Russia, "extra cities are also used for the distance calculation."[19] For instance, in the case of the US extended deterrence to Japan against the Soviet Union, Vladivostok instead of Moscow becomes the enemy side's reference point. Therefore, in the Japanese case, "inter-capital distance" is calculated as the distance between Vladivostok and Tokyo. I employ the "capital to capital, with contiguity and location" option of *EUGene*

[17] Dataset is available at http://www.correlatesofwar.org/data-sets/national-material-capabilities.
[18] All distance data are computed using EUGene software. This software is available at http://www.eugenesoftware.org/.
[19] Scott D. Bennett and Allan C. Stam, "EUGene Documentation," p. 23. 2007.

Software, when the enemy of the client(s) is either the US or the Soviet Union/Russia. For more details on *EUGene Software's* options and dataset, see "EUGene Documentation (PDF Format, V 3.2)." This document is available at https://eugenesoftware.la.psu.edu/documentation/. Reference points of all cases included in the universe of cases are summarized in Table A-6.

Year	Case	Potential Attacker(s)	Reference frontline client	Inter-capital (Inter-city) distance (miles)
1951	US to ANZUS	Soviet Union	Australia	Vladivostok-Canberra (5,532)
2012	US to Australia	China	Australia	Beijing-Canberra (3,739)
1959	US to Iran	Soviet Union	Iran	Moscow-Teheran (1,534)
1951	US to Japan	Soviet Union	Japan	Vladivostok-Tokyo (664)
1972	US to Japan	Soviet Union	Japan	Vladivostok-Tokyo (664)
2010	US to Japan	China	Japan	Beijing-Tokyo (1,306)
1949	US to NATO-Europe	Soviet Union + Satellites	West Germany	East Berlin-Bonn (296)
1955	US to NATO-Europe	Soviet Union + Satellites	West Germany	East Berlin-Bonn (296)
2014	US to NATO-Europe	Russia	Latvia	Moscow-Vilnius (490)
1959	US to Pakistan	India	Pakistan	New Delhi-Islamabad (426)
1972	US to Pakistan	India	Pakistan	New Delhi-Islamabad (426)
1977	US to Panama	Soviet Union	Panama	St. Petersburg-Panama City (6,356)
1951	US to Philippines	Soviet Union	Philippines	Vladivostok-Manila (2,078)
1974	US to Philippines	China	Philippines	Beijing-Manila (1,775)
1992	US to Philippines	China	Philippines	Beijing-Manila (1,775)
1947	US to Rio Pact	Soviet Union	Dominican Republic	St. Petersburg-Santo Domingo (5,468)
1982	US to Rio Pact	Soviet Union	Bahamas	St. Petersburg-Nassau (5,308)
1954	US to SEATO	China	Philippines	Beijing-Manila (1,775)
1953	US to South Korea	North Korea + China	South Korea	Pyongyang-Seoul (121)
1991	US to South Korea	North Korea	South Korea	Pyongyang-Seoul (121)
1963	US to Spain	Soviet Union + Satellites	Spain	East Berlin-Madrid (1,162)
1976	US to Spain	Soviet Union	Spain	Minsk-Madrid (1,720)
1954	US to Taiwan	China	Taiwan	Beijing-Taipei (1,140)
1974	US to Taiwan	China	Taiwan	Beijing-Taipei (1,140)
1977	US to Thailand	Vietnam	Thailand	Hanoi-Bangkok (614)
1950	Soviet Union to China	Taiwan + US	China	Taipei-Beijing (1,140)
1960	Soviet Union to China	Taiwan + US	China	Taipei-Beijing (1,140)
1966	Soviet Union to Mongolia	China	Mongolia	Beijing-Ulaanbaatar (725)
1961	Soviet Union to North Korea	South Korea + US	North Korea	Seoul-Pyongyang (121)
1955	Soviet Union to Warsaw Pact	NATO	East Germany	Bonn-East Berlin (296)
1992	Russia to CST/CSTO	NATO	Armenia	Ankara-Yerevan (616)
1994	Russia to CST/CSTO	NATO	Belarus	Berlin-Minsk (594)
1992	Russia to Turkmenistan	Afghanistan	Turkmenistan	Kabul-Ashgabat (647)

Table A-6. Reference Points for Intercity Distance
*Source: Scott Bennett and Allan C. Stam, 2016, *EUGene Software* (version 3.212)

Miles per day (daily transit rate): Miles per day refers to a state's ability to transport/project military forces involving major operations. That is, it means the average distance major military

units can travel per day. Based on consultations with military officials and histories, Bueno De Mesquita defines the transit range for the years 1816-1918 to be 250 miles per day; defines the transport range for the years 1919-1945 as 375 miles per day; and defines it after 1945 as 500 miles per day.[20] As Lemke, Diehl, and Moul criticize, this estimation is too generous and inaccurate in the sense that 1) the coding rule is based on a very exceptional case like the US mechanized division's swift maneuver in the Gulf War; and 2) it gives too much emphasis on the development/innovation of transportation technologies.[21] Thus, in this study, I define the daily transit range as "50 miles" per day.[22]

(10-*e*): This loss-of-strength gradient adds a constant term "10-e" to a logarithm with base ten specification. According to Bueno de Mesquita's explanation, if we simply use distances and transit rates with the logarithm base ten, power will not begin to degrade until ten days' transit has occurred. That seems too long a delay. In contrast, using the natural logarithm will degrade power scores after *e* (2.71828…) days' worth of travel, which seems reasonable. Unfortunately, employing a natural logarithm will then subsequently degrade power very rapidly. Consequently, his formula adds 10 to the logarithm from the base ten specification so that power decline is not delayed 10 days, but then subtracts *e* from that 10 so that the decline in

[20] Bueno De Mesquita, *The War Trap*, 104.

[21] Douglas Lemke, *Regions of War and Peace* (Cambridge: Cambridge University Press, 2002); Paul Diehl, "Contiguity and Military Escalation in Major Power Rivalries, 1816–1980." *The Journal of Politics* 47, no. 4 (November 1985): 1203-1211; William Moul, "Balances of Power and the Escalation to War of Serious Disputes among European Great Powers." *American Journal of Political Science* 32, no. 2 (May 1988): 241-275.

[22] There is a lot of evidence that supports that fact that my choice of "50 miles" is reasonable. For example, "the German blitzkrieg through France moved about 200 miles in seven days, or 30 miles per day. Despite encountering light opposition, mechanized armies typically can expect to advance at 100 miles per week, or 15 miles a day. In the 2003 invasion of Iraq, US ground forces moved about 400 miles in the three weeks, or about 130 miles per week or 20 miles per day. James Kraka, *Maritime Power and the Law of the Sea: Expeditionary Operations in World Politics* (Oxford: Oxford University Press): 92. When armies try to break through well-prepared defensive lines, daily advance rates are likely to be less than former cases. For example, "they were as low as about 1 kilometer (0.6 miles) a day in campaigns against very well-prepared defenses, such as the allies' attack against Germany around the Siegfried Line." O'Hanlon, "Stopping a North Korean Invasion," 148. All these historical examples considered, Bueno De Mesquita's a rate of 500 miles per day is too generous of a coding rule, and my approach (50 miles/day) is a better way to capture a more realistic daily advance rate by an aggressor in the battlefield.

power begins a little under three days.[23]

§ Measuring Non-Patron Multilateral Alliances' Military Power

Keeping in mind that the core principle of multilateral alliances is collective defense, it is accurate to maintain that some clients' quick fall to an enemy would be as serious to a nuclear patron as the entire alliance bloc's quick fall to the enemy. Among multiple clients, whether or not a *frontline* client(s) could endure and withstand an enemy attack is a crucial determinant of if the enemy will win a quick victory against all clients.

Generally, multilateral security alliances, such as NATO and the Warsaw Pact, spread over a vast geographical area. If frontline clients fall to an enemy quickly, the possibility of the enemy's quick overrunning of other clients in further rear areas would increase. The quick collapse of forward defense lines would not allow clients in rear areas to have sufficient preparation time to establish robust defense lines against the invading forces. Therefore, a frontline client(s)' quick fall to the enemy leads to a subsequent cascade of quick collapses of defense lines in further rear areas. Consider World War II, in which Nazi German troops' swift overrunning of the Benelux countries paved the way for the invaders' quick overrunning of France as well.

Therefore, when I calculate the local-combat-power ratio of an enemy to *multilateral* alliances, I compare "an enemy's adjust military power discounted by distance" to "combined CINC scores of a frontline client state (or frontline client states)." Among all the clients within the multilateral alliance, those considered to be *frontline* client(s) in a given case is(are) provided in the parentheses in the first column (e.g., "Benelux countries" in the case of the US extended deterrence to NATO-Europe (1949)).

[23] Bueno De Mesquita, *The War Trap*, 105-6. For a more detailed explanation on this point, see Lemke, *Regions of War and Peace*, 72, footnote 3.

Additional Alternative Explanations

Power Projection Model

Basically, this school holds that a nuclear power's forward troop deployments are essentially intended to improve its ability to hit remote targets.[24] In this connection, the power projection model suggests that clients faraway from a nuclear patron or those proximate to a nuclear patron's own adversaries would become ideal candidates to deploy the patron's troops. This generates the following hypothesis: The farther away from a nuclear patron and the closer to its enemy, the more likely a patron will deploy its forces in that client.

Relatedly, the power projection model also suggests that the advent and evolution of long-range offshore delivery platforms, such as strategic bombers and ICBMs, reduces the military utilities of forward military presence, on average. This generates the following hypothesis: the more long-range delivery platforms (e.g., strategic bombers, ICBMs) a potential deployer (a patron) possesses, the less likely it is that it will forward deploy nuclear and conventional forces.[25] To put it differently, this school predicts that the number of forward-deployed nuclear/conventional forces stationed in a given host client will have an inverse relationship with the number of ICBMs possessed by a patron.

Evaluating the Power Projection Model

This school is partially supported by the South Korea case. Indeed, South Korea could function as a staging area or a forward base from which US forward-deployed troops could be projected promptly and efficiently into enemy targets in Northeast Asia (e.g., a far eastern part of the

[24] For more details on the power projection model, see, Matthew Fuhrmann and Todd S. Sechser, "Nuclear Strategy, Nonproliferation, and the Causes of Foreign Nuclear Deployments," *Journal of Conflict Resolution* 58 no. 3 (April 2014): 463.

[25] Fuhrmman and Sechser test a slightly different hypothesis that draws from the power projection model: "Foreign nuclear deployments are less likely to occur when a potential deployer possesses ICBMs." Ibid, p. 464.

Soviet Union, China) due to South Korea's geographical proximity to them.[26] Therefore, as the power projection model suggests, the South's strategic location was one of the main reasons why the US forward deployed and maintained substantial nuclear and conventional troops in the South in the first place.

However, the validity of this case is weakened by the fact that the US continued to deploy TNWs on South Korean soil despite the development of the US's first operational ICBMs (SM-65 Atlas) in 1959 and the following introduction of a variety of US ICBMs thereafter. The total number of ICBMs possessed by the US rapidly grew to more than 1,000 by 1970, during which the number of US TNWs in South Korea sharply increased as well (see Figure A-1 below).

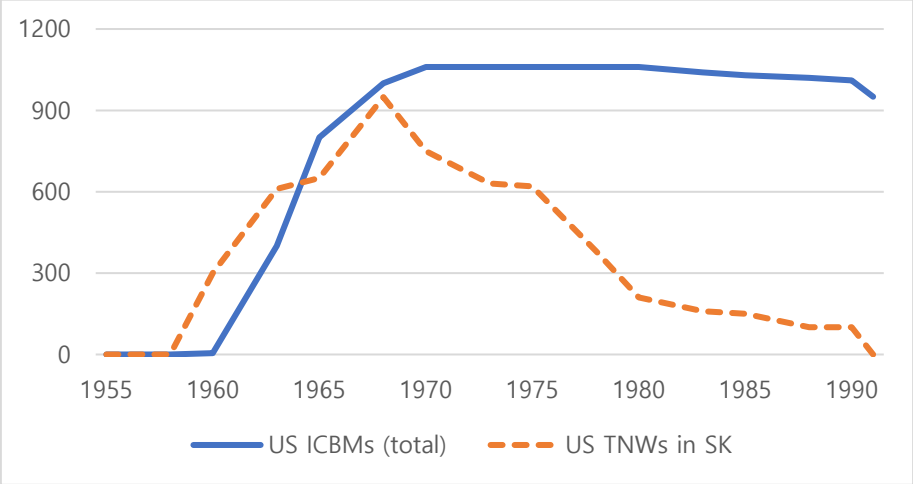

Figure A-1. Number of US ICBMs and US TNWs in South Korea over time
Source: Stephen I. Schwartz, ed., *Atomic Audit*: The Costs and Consequences of U.S. Nuclear Weapons Since 1940 (Washington: Brookings Institution Press, 1998), 130-35; Robert S. Norris, William M. Arkin, and William Burr, "Where They Were," *Bulletin of the Atomic Scientists* 55, No. 6 (November/December 1999), 26-35, 66-67; Robert S. Norris & Hans M. Kristensen, "Nuclear U.S. and Soviet/Russian Intercontinental Ballistic Missiles, 1959-2008," *Bulletin of the Atomic Scientists* 65, No. 1 (January/February 2009), 62-69; Hans M. Kristensen & Robert S. Norris, "A history of US nuclear weapons in South Korea," *Bulletin of the Atomic Scientists* 73, No. 6 (2017), 349-57.

In other words, although the US had already obtained a robust capability to project nuclear power anywhere in the Korean theater, the number of US TNWs in South Korea rather

[26] Jae-Bong Lee, "US Deployment of Nuclear Weapons in 1950s South Korea & North Korea's Nuclear Development: Toward Denuclearization of the Korean Peninsula," *The Asia-Pacific Journal* 7, no. 3 (Issue 8, 2009), 5-6; Hans M. Kristensen and Robert S. Norris, "A history of US nuclear weapons in South Korea," *Bulletin of the Atomic Scientists* 73, no. 6 (2017), 350-51.

increased to about 950 by 1967.[27] Although the US possessed about 1,000 ICBMs by 1990, it still retained about 100 B-61 gravity nuclear bombs in the South until the eve of the complete nuclear withdrawal in 1991 (see Figure A-2 below).[28]

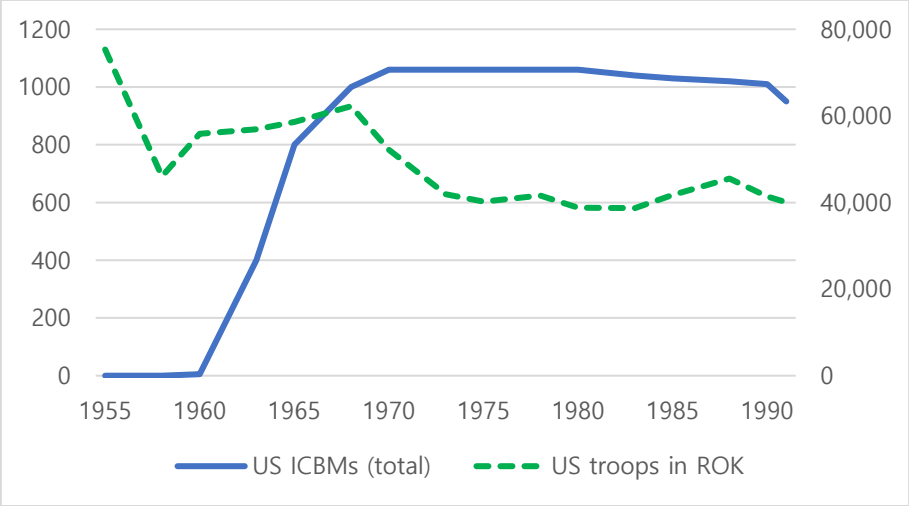

Figure A-2. Number of US ICBMs and US conventional troops in South Korea over time
Note: No. of US ICBMs (left axis), No. of US troops (right axis)
Source: Stephen I. Schwartz, ed., *Atomic Audit*: The Costs and Consequences of U.S. Nuclear Weapons Since 1940 (Washington: Brookings Institution Press, 1998), 130-35; Robert S. Norris & Hans M. Kristensen, "Nuclear U.S. and Soviet/Russian Intercontinental Ballistic Missiles, 1959-2008," *Bulletin of the Atomic Scientists* 65, No. 1 (January/February 2009), 62-69; Tim Kane, "Global U.S. Troop Deployment, 1950-2005," The Heritage Foundation, https://www.heritage.org/defense/report/global-us-troop-deployment-1950-2005.

In addition, at a conventional level, the number of US troops stationed in the ROK does not have a clear inverse relationship with the total number of US ICBMs during the first period. Especially, as the figure above shows, while the number of US ICBMs increased sharply between 1960 and 1970, the number of US troops in the ROK rather gradually increased simultaneously, which contradicts the power projection model's prediction. Moreover, in the following period between 1970 and 1991, a clear inverse relationship between the two military elements is not found either. In brief, the first-sub period of the South Korean case is not consistent with the power projection model's prediction.

In contrast, the second-sub period of the case fits nicely with the power projection model.

[27] Kristensen and Norris, "A history of US nuclear weapons in South Korea," 349.
[28] Ibid.

The combination of large-scale US ICBMs (600) and the absence of US forward-deployed nuclear forces in South Korea after 1991 is consistent with the power projection model's prediction. By extension, the gradual drawdown of American conventional troops in the South since 1991 also supports the model's validity, given the US's continuously improved standoff strike and power projection capabilities over the last three decades.[29] To sum up, the power projection model is partially supported by the ROK case.

Next, the power projection model is partially supported by the Philippine case. Certainly, the Philippine Archipelago functioned as a springboard from which US forward-deployed troops could be projected quickly into neighboring regions such as the Indochina Peninsula, the South China Sea, and the Taiwan Strait.[30] The sizable US conventional troops stationed in the Philippines during the first (1951-1974) and second (1974-1992) sub-periods, therefore, seem to bear out the power projection model. Upon close inspection, however, it turns out that the two sub-periods do not fit perfectly with the power projection model. As Figure A-3 below shows, when the number of US ICBMs spiked between 1960 and 1970, the number of US conventional troops in the Philippines also sharply increased to almost 30,000, which contradicts the power projection model's prediction. Moreover, during the following two decades (1970-1991), the two military units did not vary inversely either, further weakening the validity of the power projection model.

[29] For example, see, Kelly M. Sayler, "Hypersonic Weapons: Background and Issues," *CRS Report* no. R45811(Washington, DC: Congressional Research Service, 2020). Amy F. Woolf "Conventional Prompt Global Strike and Long-Range Ballistic Missiles: Background and Issues," *CRS Report* no. R41464 (Washington, DC: Congressional Research Service, 2020); Hans M. Kristensen and Matt Korda, United States nuclear forces, 2020, *Bulletin of the Atomic Scientists* 76, no. 1, 46-60.

[30] For example, see, Merlin M. Magallona, *Military Bases and Nuclear Weapons: U.S. Neocolonism in the Philippines* (Quezon City, Philippines: University of Philippines Law Complex, 1991), Chpt 1; A. James Gregor, "The Key Role of U.S. Bases in the Philippines," *Backgrounder* (Washington, DC: Asian Studies Center, The Heritage Foundation, January 1984)," CIAERR, CIA-RDP88T00528R000100010046-1.

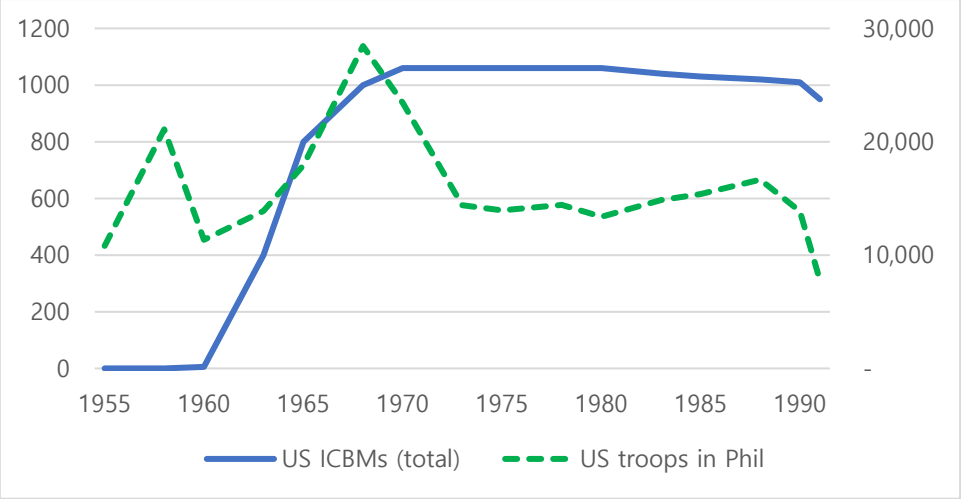

Figure A-3. Number of US ICBMs and US conventional troops in the Philippines over time
Note: No. of US ICBMs (left axis), No. of US troops (right axis)
Source: Stephen I. Schwartz, ed., *Atomic Audit*: The Costs and Consequences of U.S. Nuclear Weapons Since 1940 (Washington: Brookings Institution Press, 1998), 130-35; Robert S. Norris & Hans M. Kristensen, "Nuclear U.S. and Soviet/Russian Intercontinental Ballistic Missiles, 1959-2008," *Bulletin of the Atomic Scientists* 65, No. 1 (January/February 2009), 62-69; Kane, "Global U.S. Troop Deployment, 1950-2005," https://www.heritage.org/defense/report/global-us-troop-deployment-1950-2005.

Finally, whether the power projection school is supported by the third sub-case (1992 to present) is not clear. The US's complete withdrawal from the Philippines and the following absence of the US troops in the client thereafter are well matched with the US's rapidly growing power projection capability. However, the fact that the US (and the Philippines) has made efforts to return American troops to the Archipelago since shortly after the complete withdrawal raises a question about the power projection model.[31] In other words, it is not clear whether nondeployment of US troops there since 1992 has been caused by the US robust power projection capabilities or by the Philippine's domestic opposition.[32]

[31] For example, see, Michael Richardson, "New Agreement Would Allow Joint Exercises and Visits by Warships: U.S. Pushes Manila on Military Pact," *The New York Times*, August 4, 1998; Ankit Panda, "US-Philippines Enhanced Defense Cooperation Agreement Bolsters 'Pivot to Asia,'" *The Diplomat*, April 29, 2014; Gerg Cahiles, "U.S., Philippines announce five military bases for EDCA," *CNN*, March 19, 2016.
[32] For more details on the domestic political factor, see, Philip Shenon, "Philippine Senate Votes to Reject U.S. Base Renewal," *The New York Times*, September 16, 1991; Alfredo R. A. Bengzon, A Matter of Honor: The Story of the 1990-91 RP-US Bases Talks (Manila: Anvil Publishing, 1997); Katerina Francisco, "Look Back: When the Senate Said 'no' to US Bases Renewal," September 16, 2016, https://www.rappler.com/newsbreak/iq/look-back-senate-no-us-base-renewal-1991.

Case-Specific Explanations

In addition to the preceding four global alternative explanations for my entire theory, two other perspectives are often mentioned as *case-specific* alternative explanations for the US nuclear withdrawal from South Korea in 1991.

Nuclear Arms Reduction School

First, the "nuclear arms reduction" school claims that the US nuclear withdrawal from South Korea in 1991 was the product of the US-Soviet nuclear disarmament efforts. That is, the US withdrawal decision was driven by the US worldwide nuclear arms reduction efforts as part of the Bush administration's Presidential Nuclear Initiatives (PNIs) announced in September 1991. The thrust of the PNIs was the removal of all ground-based and sea-based TNWs abroad. Amid the thaw in the Cold War conflict, the Bush administration's PNIs were designed to remove its overseas nuclear weapons, spurring reciprocal Soviet steps.[33] In short, according to this school, the main driver of the US nuclear withdrawal from South Korea was an appendage of changes in the US global nuclear arms reduction policy, rather than a result of shifts in the local security environment surrounding the Korean Peninsula.

Nuclear Negotiation School

Second, the "nuclear negotiation" school argues that the US decision was intended to facilitate negotiations with Pyongyang to prevent its nuclear development. This school argues that the US nuclear withdrawal was a *quid pro quo* and a bargaining chip for Pyongyang's acceptance of international inspection and an eventual successful negotiation of the denuclearization of the Korean peninsula, which laid the foundation for the Joint Declaration of the Denuclearization

[33] Susan J. Koch, *The Presidential Nuclear Initiatives of 1991-1992* (Washington D.C.: National Defense University Press, 2012); Hans M. Kristensen, "The Withdrawal of U.S. Nuclear Weapons from South Korea," September 28, 2005, https://www.nukestrat.com/korea/withdrawal.htm.

of the Korean Peninsula of 1992.[34]

Evaluating Case-specific Explanations

These two rival arguments fail to see the forest for the trees. Focusing too much on the event of a nuclear withdrawal per se, they miss a larger point: the US nuclear removal was part of a comprehensive shift in the US extended deterrence strategy toward the South. In other words, the nuclear withdrawal was part of a series of changes that were linked to changes in the function, size, and configuration of the US conventional forces in South Korea. This is not to say that 1) the US's nuclear arms reduction efforts and 2) a burgeoning North Korean nuclear issue had no impact at all on the US decision. Admittedly, these events would have promoted the US nuclear withdrawal to some extent. However, as shown in the main text, as early as the mid-1980s, and therefore, *prior to* Bush's PNIs and the earnest beginning of the North Korean nuclear issue, the US perception of the likelihood of the North's quick victory was already shifting from "high" to "low."[35] In brief, although the early-1990's events could be *proximate* causes of nuclear withdrawal, the US's new view of a deterrence factor was the *ultimate* cause of it. This point becomes clearer by closely examining the process of nuclear withdrawal from South Korea.

The official notification of the US's intention to withdraw TNWs was made in early August. The US government proposed a secret high-level meeting with the ROK government to discuss nuclear issues on the Korean Peninsula. The two-day meeting was held at the US Pacific Command Headquarters in Honolulu, Hawaii, on August 6-7, 1991. The main reason for the talks was to inform the ROK of the US's intention to pull TNWs from South Korean soil in the

[34] "Engaging North Korea: Evidence from the Bush I Administration," National Security Archive, https://nsarchive.gwu.edu/briefing-book/korea-nuclear-vault/2017-11-08/bush-43-chose-diplomacy-overmilitary-force-north-korea. A full text of the joint declaration is available at https://peacemaker.un.org/sites/peacemaker.un.org/files/KR%20KP_920120_JointDeclarationDenuclearizationKoreanPeninsula.pdf.

[35] See, pp. 31-35 of the main text.

foreseeable future. A historian succinctly described the substance of the secret talks:

> "While other issues were mentioned, Washington's real purpose was to be sure that the Koreans would be comfortable with removal of the remaining American nuclear weapons. At the high point of the sessions, the representative of the U.S. Joint Chiefs of Staff announced the Pentagon's conclusion that the nuclear deployments in South Korea were not necessary for the country's defense. While no strong objections to removal of the weapons were raised by the Koreans, some suggested that they be used as a bargaining chip for concessions from Pyongyang."[36]

This description implies an important point: If US decision-making circles had not reached the conclusion that forward-deployed nuclear weapons in South Korea were no longer necessary to deter and defeat a North Korean aggression, a bargaining-chip idea for nuclear negotiation with Pyongyang would have become moot. In other words, the better deterrence condition in the Korean theater allowed the US to use nuclear withdrawal as a carrot to curb the North's increasing desires for nuclear development. Similar logic also applies to Bush's PNIs. As my correspondence with General Powell and his memoir implies, the Pentagon's conclusion that the US forward-deployed nuclear weapons were no longer essential to deter the North—mainly due to the South's significantly improved self-defense capabilities—laid the foundation for the Bush administration's comprehensive removal of TNWs from foreign countries, including South Korea.[37]

To conclude, the two case-specific alternative explanations are inadequate to capture the holistic and fundamental dynamics of the US decision for nuclear withdrawal from South Korea.

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[36] Don Oberdorfer, *The Two Koreas: A Contemporary History* (Reading, MA: Addison-Wesley, 1997), 259.

[37] Importantly, according to General Powell's memoir, the Joint Chiefs of Staff had already reached this judgment in the late 1980s. See, Colin L. Powell with Joseph E. Persico, *My American Journey* (New York: Ballantine Books, 2003), 540.

Mini-Case Studies (Coding for Individual Cases)

From here, I explain my coding of the independent and dependent variables in all cases except for the cases of South Korea and Philippines, which are already examined in the article. Furthermore, I conduct mini-case studies for all other cases not explored in the article.

US Extended Deterrence to the ANZUS Treaty (1951-1991 (x)/2012-present (x))

The US began to bear the responsibility for the protection of Australia and New Zealand by signing the Australia, New Zealand and United States Security Treaty, or ANZUS Treaty in 1951 (ATOP ID: 3525).[38] Article IV of the formal defense pact stipulates members' security obligations to other members in the event of an external armed attack.[39]

Through the creation of a tripartite security agreement with the US, the antipodean powers wished to contain the Soviet Union, which was a major external threat to their security.[40] However, when the foundation of a security pact was discussed, both the US and the antipodean powers revealed a lower threat perception.[41] For example, then-Consultant to the US Secretary of State John Foster Dulles questioned the necessity of such a security arrangement given "the negligible threat of a direct Communist attack on either Australia or New Zealand."[42] In the same vein, New Zealand Prime Minister Sidney Holland remarked in a conversation with Assistant Secretary of State for Far Eastern Affairs Dean Rusk that "the New Zealand prime

[38] ATOP Coding Sheet, "ATOP ID: 3220."
[39] Article IV states: "Each Party recognizes that an armed attack in the Pacific Area on any of the Parties would be dangerous to its own peace and safety and declares that it would act to meet the common danger in accordance with its constitutional processes." "Security Treaty between Australia, New Zealand and the United States of America," Australasian Legal Information Institute, http://www.austlii.edu.au/au/other/dfat/treaties/1952/2.html. Also see, ATOP Coding Sheet, "ATOP ID: 3525."
[40] Thomas K. Robb and David James Gill, "The Anzus Treaty During the Cold War: A Reinterpretation of U.S. Diplomacy in the Southwest Pacific," 17, no. 4 (2015): pp. 135-36.
[41] Henry W. Brands, "From Anzus to Seato: United States Strategic Policy Towards Australia and New Zealand, 1952-1954," *The International History Review* 9, no. 2 (1987): pp. 253-55.
[42] Robb and Gill, "The Anzus Treaty During the Cold War: A Reinterpretation of U.S. Diplomacy in the Southwest Pacific," p. 134.

minister accepted that the likelihood of a direct attack on his country was remote," and thus military forces "could best be utilized in some other theater."[43] In short, on the assurance front, Washington perceived that the Soviet Union posed a non-existential threat to the antipodean powers.

On the deterrence front, it was highly likely to be judged that the Soviet Union would achieve a quick victory against the antipodean powers' indigenous forces in case of its armed aggression. The antipodean powers did not have sufficient military capability to perform blue-water and long-distance air operations to deny the enemy's quick accesses to its territory. Specifically, as of 1951, the total number of combined armed forces possessed by the antipodean powers were only 42,000. By the early 1960s, the antipodean powers still possessed fledgling naval and air power compared to the Soviet Union.[44] Given the clients' poor military power, it is highly likely that the US had a pessimistic view with respect to a deterrence dimension. My theory predicts that the US would adopt a 'forward conventional deployment' strategy for the protection of Oceanian clients. Despite the antipodean powers' unique and isolated location, as of 1951, the Soviet Union's CINC score discounted by a long-travel distance was still three times larger than the Australia-New Zealand combined CINC score (3.49:1). This estimated result reaffirms that the Soviet Union's quick victory against the Oceanian clients was highly likely during the first period.

To sum up, the first sub-period of the ANZUS case is characterized by the combination of

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[43] Cited in Robb and Gill, ibid, p. 133. However, the New Zealand Prime Minister added that "New Zealand would have to know, in the event the unlikely occurred and they were attacked, that someone, preferably the United States, would 'give them a hand." Cited in ibid, p. 134.

[44] As of 1951, Australia possessed 33,000 troops and New Zealand possessed 9,000 troops. The Correlates of War Project, "National Material Capabilities Dataset (v. 5.0)." As of 1962, Australia's total military troops were at 48,500. Royal Australian Navy possessed 1 carrier ship, 1 transport ship, 13 escort ships, and 6 minesweepers. Royal Australian Air Force possessed 3 *Canberra* [bomber] squadrons, 4 *F-86* [combat fighter] squadrons, and 2 *Neptune* patrol squadrons. As of 1962, total armed forces of New Zealand were at 12,200. Royal New Zealand Air Force possessed 1 cruiser and 4 escort ships. Royal New Zealand Air Force possessed 1 bomber squadron with 12 *Canberras*, 1 maritime reconnaissance squadron, and 3 transport squadrons. *The Military Balance 1962-1963* (London: The Institute for Strategic Studies, 1962).

a "non-existential threat" and the "high" likelihood of the enemy's quick victory. In this setting, my theory predicts that a nuclear patron would adopt a "forward conventional deployment" strategy. Contrary to my prediction, the US adopted a "nuclear defense pact" strategy. It is not fully known exactly when the US began to provide an explicit nuclear guarantee to the antipodean clients. Yet, it is generally accepted that the US extended its nuclear deterrence over Australia during the Cold War era[45] and over New Zealand until 1986, when the US security shield was withdrawn due to Wellington's determined claim for a nuclear-free zone.[46] In a conventional dimension, small-scale token troops (on average, annually 461 personnel in Australia and 169 personnel in New Zealand) were deployed in the clients' territories, respectively.[47]

Next, during the second sub-period of the ANZUS case (2012-present), China's maritime expansion and its threats to neighboring countries' freedom of navigation have become explicit in the South China Sea.[48] Even Australian forces operating within the disputed waters were sometimes threatened and challenged by Chinese troops, raising the possibility of a military collision between the two sides in the region.[49] A driving force for China's military

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[45] Christine M. Leah and Crispin Rovere, "Chasing Mirages: Australia and the U.S. Nuclear Umbrella in the Asia-Pacific," in *Nuclear Proliferation International History Project*, ed. Wilson Center (Washington, DC: Woodrow Wilson International Center for Scholars, 2013); "Nuclear Umbrellas and Umbrella States," International Law and Policy Institute, updated April 22, 2016, http://nwp.ilpi.org/?p=1221.

[46] In this regard, the New Zealand Prime Minister declared that "they [the people of New Zealand] don't see a nuclear weapons defense of New Zealand as a security assurance—they don't see being defended by nuclear weapons as any sort of assurance." Don Oberdorfer, "U.S. Withdraws New Zealand's Anzus Shield," *The Washington Post*, June 28, 1986. Also, see, "Nuclear Umbrella States: A Brief Introduction to the Concept of Nuclear Umbrella States," in *Nutshell Paper* (Oslo, Norway: International Law and Policy Institute, 2011), p. 1. The document is available at http://nwp.ilpi.org/wp-content/uploads/2015/03/NP04-11-UmbrellaStates.pdf.

[47] Kane, "Global U.S. Troop Deployment, 1950-2005," The dataset is available at, https://www.heritage.org/defense/report/global-us-troop-deployment-1950-2005.

[48] Specifically, China's seizure of the Scarborough Shoal in 2012 is arguably the starting point of China's full-swing territorial expansion into the region. Since then, China has engaged in land reclamation and militarization of the artificial islands in the dispute waters. See, "China Island Tracker," Asia Maritime Transparency Initiative, Center for Strategic & International Studies, https://amti.csis.org/island-tracker/china/.

[49] Andrew Greene, "Australian Warships Challenged by Chinese Military in South China Sea," *ABC News*, April 20, 2018; Brad Lendon and Ben Westcott, "Australian Helicopters Targeted by Lasers in South China Sea," *CNN*, May 29, 2019; Bill Mcloughlin, "South China Sea Tension: China Vows to 'Defeat All Enemies' as Warships Arrive in Sydney," *The Express*, Jun 4, 2019; Kumail Jaffer, "South China Sea Fury as Beijing Sends Warships

harassments or menacing behaviors against Australian troops, however, has been its territorial ambitions over the region rather than its desire for political absorption of Australia. Given this point, on the assurance front, Washington was likely to perceive Beijing's menace to Canberra as a non-existential threat.

On the deterrence front, it was likely that the US would assess that China would quickly defeat Australia in the event of war. Specifically, as of 2012, China's air and naval power outnumbered and outgunned Australia's. This implies that Chinese troops were likely to outmaneuver and outperform Australian troops in a possible military collision in the disputed waters and even Australia's nearby sea and airspace. The local-combat-power ratio of China's CINC adjusted score to Australia is 5.80 to 1 in China's favor. This ratio reaffirms that the foregoing measurement of the deterrence factor—China's highly likely victory—is cogent.

To sum up, the second sub-period of the Australia case is characterized by the combination of "non-existential" and "high". When this is the case, my theory provides a prediction that the US should have adopted a "forward conventional deployment" strategy. Contrary to the prediction, however, the US has adhered to a "nuclear defense pact" strategy for Australia's security since 2012. For example, the Australian government's defense white paper published in 2009 confirms the US nuclear umbrella over its country saying:

> "For so long as nuclear weapons exist, we are able to rely on the nuclear forces of the United States to deter nuclear attack on Australia… That protection provides a stable and reliable sense of assurance and has over the years removed the need for Australia to consider more significant and expensive defence options."[50]

Pundits also classify today's Australia as a recipient of US extended nuclear deterrence

into Australia," *The Express*, June 7, 2019; Panos Mourdoukoutas, "China Must Either Trim Its South China Sea Sails or Face Disaster," *Forbes*, June 8, 2019.

[50] Australian Government Department of Defence, *Defending Austalia in the Asia Pacific Century: Force 2030, Defence White Paper 2009* (Canberra: Commonwealth of Australia 2009), p. 50.

guarantees.[51] In conclusion, both sub-cases of the ANZUS case (Australia since 1986) do not support my theory.

US Extended Deterrence to Iran (1959-1979 (X))

Over the last four decades, Iran has been the US's enemy, challenging its national security and regional interests in the Middle East. Before the Iranian revolution of 1979 took place, however, Iran was the US's formal ally ruled by pro-American Iranian leaders. US and British intelligence agencies (CIA and M16) orchestrated a coup behind the scenes to overthrow Iran's Mohammed Mossadeq administration. The Iranian prime minister was democratically elected in April 1951. He soon became an annoyance to the UK, however. After taking office, he carried out the nationalization of the Anglo-Iranian Oil Company (AIOC). His shift towards a nationalist-oriented discourse and policy invited a strong backlash from London in the form of an embargo on Iranian oil. Consequently, the Iranian economy deteriorated. Washington initially made efforts to arbitrate between the two sides. However, the US eventually changed its stance and decided to overthrow the Mosaddegh regime in cooperation with the UK based on the theory that "rising internal tensions and continued economic deterioration...might lead to a breakdown of government authority" and pave the way for the seizure of political power by Iran's communist party.[52]

The coup succeeded and returned government power to the Western-friendly monarchy led by Shah Mohammad Reza Pahlavi. Thereafter, the US and Iran's Shah regime predictably maintained close ties. As an extension of the amicable bilateral relationship, on March 5, 1959, the US signed a formal alliance treaty with Iran to bolster the security of the pro-American

[51] For example, see, Clark A. Murdock et al., *Exploring the Nuclear Posture Implications of Extended Deterrence and Assurance* (Washington, DC: Center for Strategic and International Studies, 2009), p. 77, p. 100.
[52] Mark J. Gasiorowski, "The 1953 Coup d'état against Mosaddeq," in *Mohammad Mosaddeq and the 1953 Coup in Iran*, ed. Mark J. Gasiorowski and Malcolm Byrne (Syracuse, NY: Syracuse University Press, 2004), 230-31.

Iranian monarchy from a threat of Soviet armed aggression (ATOP ID: 3365).[53] Article I of the alliance treaty stipulates the US obligation to come to the aid of Iran in case of external aggression against the country.

> "(Iran) is determined to resist aggression. In case of aggression against Iran, the (U.S.), in accordance with the Constitution of the United States of America, will take such appropriate action, including the use of armed forces … in order to assist the (Iran) at its request."[54]

On the assurance front, the US assessed that Iran faced an existential threat posed by the Soviet Union. The US viewed that Iran's survival was in jeopardy due to a Soviet attempt to politically absorb the client. The US State Department declared on October 12, 1955 that "the United States has had a long-standing interest in the territorial integrity and sovereign independence of Iran. That has been amply demonstrated in the past. That interest remains a cardinal feature of US policy…"[55] A NSC report of 1955 assessed that "Iran must be regarded as a continuing objective of Soviet expansion. Therefore, …, the United States … will have to assume a larger and continuing responsibility for the independence of Iran."[56]

In December 1956, Secretary of State Dulles stated that "Iran is a vital and exposed part of the Middle East and must be dealt with … on the basis of the requirements of United States interests in a most dangerously threatened area of the world."[57] Around the same time, President Eisenhower revealed a high threat perception in his letter to the Shah as follows: "I continue to regard any threats to Iran's territorial integrity and political independence as a matter of the utmost gravity."[58] Later, a pundit succinctly summarized the meaning of the

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[53] During the Cold War, Iran was coterminous with the Soviet Union (today Iran's border shared with Turkmenistan (one of the former Soviet republics).
[54] ATOP Dataset Coding Sheet, ATOP ID: 3365.
[55] Quoted in George Lenczowski, "United States' Support for Iran's Independence and Integrity, 1945-1959," *The Annals of the American Academy of Political and Social Science* 401 (May, 1972), 53.
[56] *FRUS, 1955-1957, Near East Region; Iran; Iraq*, vol. 12, Document 291.
[57] Ibid., Document 373.
[58] Ibid, Document 374.

alliance treaty with Iran as follows:

> "The bilateral pact thus completed a major chapter in the development of Iranian-American relations. It was a chapter full of *crises and dangers to the survival of Iran as an independent state*. The American policy was that of growing commitments to safeguard Iran's sovereignty and integrity [emphasis added]."[59]

On the deterrence front, US officials had a negative perspective of Iran's self-reliant deterrence capability against a Soviet direct armed aggression. In 1949, the US ambassador to Iran, John C. Wiley stated that "no one imagines that now or in future [the] Iranian Army could prevent [a] Soviet invasion."[60] Similarly, the American NSC reached a conclusion in 1955 that:

> "U.S. military aid to a value of $124 million has been programmed for Iran since 1950, of which about 70% was delivered by September 30, 1954. With the aid thus far provided the Iranian armed forces are capable generally of maintaining internal security but do not possess a capability for significant defensive delaying action against Soviet aggression."[61]

The local-combat-force-ratio coincides with this negative assessment of the deterrence factor. The calculated ratio is 10.88:1, implying that the swift Soviet overrun of Iran in the event of the former's invasion of the latter was highly likely.

In summary, the US leaders viewed that Iran faced an "existential" threat and the likelihood of the Soviet quick victory in its potential aggression against Iran would be "high." In this situation, my theory predicts that the US would adopt a "forward nuclear deployment" strategy. However, contrary to the prediction, the US did not deploy its nuclear forces to Iran.[62] Washington also made no rhetorical and textual nuclear commitments for Teheran's protection. Instead, the US adopted a "conventional defense pact" strategy. Until the termination of the allied relationship due to the 1979 Iranian Revolution, a mere seven-hundred non-combat

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[59] Lenczowski, "United States' Support for Iran's Independence and Integrity, 1945-1959," 55.
[60] *FRUS, 1949, The Near East, South Asia, and Africa*, vol. 6, Document 316.
[61] *FRUS*, 1955-1957, vol. 12, Document 291.
[62] Fuhrmann and Sechser, Appendices for "Signaling Alliance Commitments: Hand-Tying and Sunk Costs in Extended Nuclear Deterrence,"

American troops, on average, were annually deployed on Iranian soil.[63] In conclusion, the case of the US extended deterrence to Iran does not support my theory.

US Extended Deterrence to Japan (1951-1972 (O)/1972-1991 (Δ)/1991-2010 (unclear)/ 2010-present (X))

The origin of the US extended deterrence over Japan dates back to 1951 when the two states signed the Security Treaty on September 8 in San Francisco (ATOP ID: 3220).[64] The treaty was later revised and replaced in January 1960 by *the Treaty of Mutual Cooperation and Security between the United States and Japan* (ATOP ID: 3375).[65] The Preamble of the 1951 treaty stipulated that "the United States of America should maintain armed forces of its own in and about Japan so as to deter armed attack upon Japan."[66]Article I of the treaty specified the US security commitment to Japan:

> Article I: … Such forces [US forces deployed in Japan] may be utilized to contribute to the maintenance of international peace and security in the Far East and to the security of Japan against armed attack from without, including assistance given at the express request of the Japanese government to put down large-scale internal riots and disturbances in Japan, causes through instigation or intervention by an outside power or powers.[67]

On the assurance front, the Soviet existential threat posed to Japan was the main driving force for the foundation of the alliance partnership.[68] A few years prior to the signing of the alliance treaty, an American intelligence report warned that, should a Soviet invasion of Japan occur, it

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[63] Kane, "Global U.S. Troop Deployment, 1950-2005."
[64] "Security Treaty between the United States and Japan," Yale Law School Lillian Goldman Law Library, https://avalon.law.yale.edu/20th_century/japan001.asp. Also see, ATOP Coding Sheet, "ATOP ID: 3220."
[65] Article V of the 1960 treaty contains the US security commitment to Japan. Article V: "Each party recognizes that an armed attack against either Party in the territories under the administration of Japan would be dangerous to its own peace and safety and declares that it would act to meet the common danger." ATOP Coding Sheet, "ATOP ID: 3375."
[66] "Security Treaty between the United States and Japan;" "ATOP ID: 3220."
[67] Ibid.
[68] Frank Jannuzi, "Japan-Russia Relations through the Lens of the U.S.-Japan Alliance," in *Japan-Russia Relations: Implications for the U.S.-Japan Alliance*, ed. Gilbert Rozman (Washington DC: Sasakawa Peace Foundation USA, 2016), p. 89.

would likely to be aimed at the political absorption of Japan into communist control due to its enormous strategic, economic and military values. The report expressed grave caution saying that

> "the geographic location of Japan renders it of strategic importance to all powers whose interests in Asia are large, particularly at the present time, to the United States and the USSR. … From the Kremlin's point of view, … , Japan under Soviet control would serve to complete a chain of offshore defenses …"[69]

The NSC meeting held in 1953 warned that

> "Soviet aims in the Far East appear to concentrate on bringing the mainland of Eastern Asia, and eventually Japan and the offshore islands in the Western Pacific, under Soviet control… Soviet bloc control of the off-shore islands in the Western Pacific, particularly Japan, would present an unacceptable threat to the security of the United States."[70]

On the deterrence front, the size of Japan's military personnel shrank remarkably from more than 6 million troops as of 1945 to about 119,000 as of 1952.[71] The 1952 military expenditures marked merely 7.23% of the 1945 level.[72] Its regular troops were disarmed and disbanded by the Allied powers. Therefore, it was highly likely that Washington would asses that Tokyo's self-reliant deterrence capabilities in the early 1950s were absolutely inadequate to cope with the communist superpower. The estimated local-combat-power ratio for this period (3.31:1) reaffirms the validity of the foregoing measurement of the deterrence factor.

To sum up, Washington's judgments were gloomy both on assurance and deterrence fronts. My theory predicts that under these circumstances, a patron will adopt a "forward nuclear deployment" strategy for the protection of a client.

Indeed, soon after signing a bilateral pact with Japan, the US began to deploy large-scale

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[69] CIA, "Strategic Importance of Japan," ORE 43-48, p. 3, Document no. CIA-RDP78-01617A003200190001-5.
[70] *Foreign Relations of the United State (FRUS)*, 1952-1954, Vol. 12, Part. 1, East Asia and the Pacific, (Washington, DC: United States Government Printing Office (GPO), 1984), Document 97.
[71] The Correlates of War Project, "National Material Capabilities Dataset (v. 5.0)." Available at http://www.correlatesofwar.org/data-sets/national-material-capabilities.
[72] Ibid.

nuclear weapons to the Japanese Archipelago in 1954, "apparently with Japanese agreement."[73] They were deployed on Japanese soil until 1972.[74] Specifically, "there were nuclear weapons on Chichi Jima and Iwo Jima, an enormous and varied nuclear arsenal on Okinawa, nuclear bombs (sans fissile cores) stored on the mainland at Misawa and Itazuki airbases (and possibly at Atsugi, Iwakuni, Johnson, and Komaki airbases as well), and nuclear-armed U.S. Navy ships stationed in Sasebo and Yokosuka."[75] [76] Simultaneously, US leaders reassured Japanese

[73] "U.S. Violated Nuclear Arms Pledge in Japan, Records Show," *The New York Times*, December 12, 1999.

[74] Robert S. Norris, William M. Arkin, and William Burr, "Appendix B: Deployments by Country, 1951-1977," 55, no. 6 (1999).

[75] Robert S. Norris, William M. Arkin, and William Burr, "Where They Were: How Much Did Japan Know?," *The Bulletin of the Atomic Scientists* 56, no. 1 (January/February 2000): p. 12.

[76] Fuhrmann and Sechser's dataset does not regard the US nuclear weapons stationed in Japan as a case of foreign nuclear deployments for two reasons. First, Chichi Jima, Iwo Jima, and Okinawa "were occupied by the American military while nuclear forces were stationed there." Fuhrmann and Sechser, "Appendix for 'Signaling Alliance Commitments,'" 12. Therefore, they are not "technically" foreign nuclear deployments. Second, since the US deployed nuclear weapons on the Japanese mainland *without* fissile cores, strictly speaking, they were non-nuclear bombs or incomplete nuclear weapons. Although, technically speaking, their coding is right, I do not adopt their coding for the Japan case for two reasons.

First, from the outset, Washington and Tokyo had a tacit consensus that Okinawa and the adjacent islands would be returned to Japan. Regarding this, a Japanese scholar recently stated: "Although the United States had been administering Okinawa and its adjacent islands after Japan's independence, the US government had admitted that Japan retained latent sovereignty over the islands. This unusual legal arrangement … hint[ed] that the islands could be one day returned to Japan." See, Yasuhiro Izumikawa, "Binding Strategies in Alliance Politics: The Soviet-Japanese-US Diplomatic Tug of War in the Mid-1950s," *International Studies Quarterly* 62 (2018), 108. Second, the US government did not intend to establish full sovereignty over the occupied islands. Rather, from the beginning, the US implicitly acknowledged that Tokyo had "residual sovereignty" over Okinawa, Chichi Jima and Iwo Jima. Although not formally included in the San Francisco Peace Treaty of 1951, John Foster Dulles, the US Delegate said at the San Francisco Peace Conference that "Several of the Allied Powers urged that the treaty should require Japan to renounce its sovereignty over these islands in favor of United States sovereignty. Others suggested that these islands should be restored completely to Japan. In the face of this division of Allied opinion, the United States felt that the best formula would be to permit Japan to retain residual sovereignty, while making it possible for these islands to be brought into the United Nations trusteeship system, with the United States as administrating authority." See, GPO, *American Foreign Policy, 1950-1955, Basic Documents,* Vol. 1 (Washington, DC: GPO, 1957), 453. In conclusion, the US viewed Okinawa and other islands as de-facto Japan's territory to be protected from an external threat even during the US occupation period. Therefore, this study posits that although US nuclear weapons were technically in the US territory, in practice, they were placed in Japan's territory. Next, I acknowledge Fuhrmann and Sechser's point that nuclear weapons without fissile cores can be distinguished from complete nuclear weapons. This study posits, however, that although they can be *technically* distinguished from one another, they are operationally the same, generating the same assurance and deterrence effects. That is, the incomplete nuclear bombs could be turned into complete nuclear bombs in a rapid way in military contingency while preventing a potentially huge domestic opposition from the Japanese public who had had a "nuclear allergy." This point is endorsed by Dr. Robert S. Norris, one of three co-authors of the article titled, "Where They Were: How much did Japan Know." In my recent private correspondence with him, he stated that "Of course it would take very little time for the fissile cores to be inserted and you would have a complete bomb." "Private Correspondence with Robert S. Norris," December 1, 2020. Therefore, I do not distinguish between nuclear weapons without fissile cores and complete nuclear bombs, regarding them instead as the same military assets that generate the identical extended deterrence effects. In conclusion, in the Japan case, I code the years between 1951 and 1972 as a case of forward nuclear deployment.

counterparts that it would strike back at the enemy with nuclear weapons upon its external invasion.[77] Coupled with forward-deployed nuclear weapons, the US also stationed large-scale conventional shield troops in the front areas of the Japanese Archipelago. During the period between 1951 and 1974, annually, on average, about 109,000 US troops were stationed in the client stretching from Misawa facing Hokkaido, Yokota, Atsugi, Yokosuka, Iwakuni, Sasebo, and Okinawa. Given that "a Cold War-era defense orientation that emphasized a potential Soviet invasion through Hokkaido" toward Tokyo, US military bases in Misawa, Yokota, Atsugi, and Yokosuka served as advanced bases to deter and defeat a Soviet threat.[78]

Until the end of the Cold War, the Soviet existential threat presented to Japan continued, with varying degrees of intensity. Admittedly, Washington's threat perception was ameliorated in the 1970s amid détente with the communist bloc at the time. Thus, some high-ranking American officials discounted the Soviet existential threat to Japan.[79] However, their threat perception was soon heightened as the Soviet threat to the client state increased in the late 1970s and the early 1980s.[80] On balance, therefore, Japan was assessed to confront an existential threat until the collapse of the Soviet Union.

On the deterrence front, however, the situation was improved due to Japan's arms build-up, which was backed by its significant economic growth over the previous two decades. The number of Japan Self-Defense Forces (SDF) had gradually risen from 170,000 in 1954 to

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[77] For more detailed examples of Washington's verbal reassurance of Tokyo, see, Terence Roehrig, *Japan, South Korea, and the United States Nuclear Umbrella: Deterrence after the Cold War* (New York, NY: Columbia University Press, 2017), pp. 42-46, pp. 102-04.

[78] Adam P. Liff, "Japan's Security Policy in the "Abe Era": Radical Transformation or Evolutionary Shift?," *Texas National Security Review* 1, no. 3 (2018): p. 15.

[79] For example, see, *FRUS*, 1969-1976, Part 2, Japan, Vol. 19 (Washington DC: GPO, 2018). Document 3; Document 12; Document 87.

[80] For example, see, Department of Defense, *Annual Report to the Congress: FY 1983* (Washington, DC: GPO, 1983), pp. I-3-I-14; Igor A. Latyshev, "Soviet-U.S. Differences in Their Approaches to Japan," *Asian Survey* 24, no. 11 (November 1984), 1163-73; Micheal Green, "The Challenges of Managing U.S.-Japan Security Relations after the Cold War," in *New Perspectives on U.S.-Japan Relations*, ed. Gerald L. Curtis (Tokyo: Japan Center for International Exchange, 2000): 244.

261,000 in 1971. The implementation of several Five-Year Defense Plans remarkably enhanced Japan's self-reliant deterrence capabilities. Western experts estimated that, by the end of the 1970s, Japan's defense expenditures would "approximate those of major industrial nations such as France and the UK."[81] The Japanese government also revealed confidence in its own intensified self-reliant deterrence capabilities against an external threat. Japan's *National Defense Program Outline* published in 1976 noted that "Japan has steadily improved its defense capability through the drafting and implementation of a series of four defense buildup plans. At this time, the present scale of defense capability seems to closely approach the target goals…"[82] Based on the intensified military power, Japan's SDF began to adopt a so-called *forward defense* strategy, abandoning a pre-existing "shield and spear" denial strategy that relied more on the US security umbrella and its reinforcements.[83]

Subsequently, the *Guidelines for U.S.-Japan Defense Cooperation* were adopted in 1978, which outlines "how the U.S. and Japanese militaries will interact in peacetime and in war as the basic parameters for defense cooperation based on a division of labor."[84] Soon after the 1978 *Guidelines* were adopted, the US and Japan conducted a joint study on the defense of Japan from external attacks. The joint study assessed that even if the Soviet Union invades Japan, the former's quick victory against the latter's self-defense troops would be unlikely. Michael Green and Koji Murata's study succinctly describes the joint study as follows:

> The study on the defense of Japan assumed that an enemy (the Soviet Union) would attack Hokkaido with its airborne divisions. Admiral [Naooshi] Sakonjo [then-Secretary-General of the Joint Chiefs Council] says that this scenario was unrealistic, because the Soviet Union did not have enough landing capability to take Hokkaido.

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[81] James H. Buck, "Japan's Defense Options for the 1970's," *Asian Survey* 10, no. 10 (1970): pp. 892-93.

[82] "National Defense Program Outline," October 29, 1976, in *Defense of Japan* (1989). The document is available at http://worldjpn.grips.ac.jp/documents/texts/docs/19761029.O1E.html.

[83] Eric Heginbotham and Richard Samuels, "A New Military Strategy for Japan: Active Denial Will Increase Security in Northeast Asia," *Foreign Affairs*, July 16, 2018

[84] Emma Chanlett-Avery, Caitlin Campbell, and Joshua A. Williams, "The U.S.-Japan Alliance," no. RL33740 (Washington, DC: Congressional Research Service, 2019), p. 24. The original text of the 1978 Guidelines for U.S.-Japan Defense Cooperation is available at https://warp.da.ndl.go.jp/info:ndljp/pid/11591426/www.mod.go.jp/e/d_act/us/anpo/pdf/19781127.pdf.

> One American former senior official said, according to Sakonjo, that if the Soviet Union invaded Hokkaido, the Hokkaido Prefectural Police could cope with it.[85]

In short, both Washington and Tokyo believed that, should war occur, the likelihood of a quick Soviet victory would be low.[88] Echoing their optimistic perspective, more detailed analyses of the Soviet invasion of Japan formulated in the 1970s and the 1980s also discounted the possibility of the former's quick victory against the latter's SDF.[89] The local-combat-power ratio for the second sub-period reaffirms the US's new assessment of the deterrence factor. The ratio shifts from 3.31:1 to 1.82:1—lower than the 3-to-1 threshold.

Washington's continued high threat perception and optimistic assessment of the client's self-reliant deterrence capabilities led to a strategy shift in the US extended deterrence over Japan from "forward nuclear deployment" to "nuclear defense pact." By 1972, all nuclear weapons were withdrawn from the Japanese Archipelago.[90] However, the US nuclear umbrella based on off-shore nuclear assets and verbal reassurances continued after the nuclear withdrawal.[91] In addition, when compared to the previous period, the annual average number of US conventional forces deployed in Japan decreased by 56.2%.[92] The reduction in US

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[85] I thank Koji Murata for generously permitting me to quote his co-working paper with Michael J. Green. Michael J. Green and Koji Murata, "The 1978 Guidelines for the U.S.- Japan Defense Cooperation: Process and the Historical Impact," Working Paper No. 17 https://nsarchive2.gwu.edu/japan/GreenMurataWP.htm.

[88] The Government of Japan proclaimed that "should direct aggression occur, Japan will repel such aggression at the earliest possible stage by taking immediate responsive action and trying to conduct an integrated, systematic operation of its defense capability. Japan will repel limited and small-scale aggression, in principle, without external assistance. In cases where the unassisted repelling of aggression is not feasible, due to scale, type or other factors of such aggression, Japan will continue an unyielding resistance by mobilizing all available forces until such time as cooperation from the United States is introduced, thus rebuffing such aggression." Through this statement, Tokyo clarified that it was already capable of and should keep its ability to endure even the Soviet's full-scale aggression for quite a while until US reinforcements arrived. See, "National Defense Program Outline," http://worldjpn.grips.ac.jp/documents/texts/docs/19761029.O1E.html.

[89] Myles L. C. Robertson, *Soviet Policy Towards Japan: An Analysis of Trends in the 1970s and 1980s* (Cambridge: Cambridge University Press), chapter 3.

[90] Hans M. Kristensen, "Japan under the Nuclear Umbrella: U.S. Nuclear Weapons and Nuclear War Planning in Japan During the Cold War.," ed. The Nautilus Institute for Security and Sustainable Development (1999), p. 4. Available at http://www.nukestrat.com/pubs/JapanUmbrella.pdf.

[91] For example, see, "Japan, Tlam/N, and Extended Deterrence," Federation of American Scientists, updated July 2, 2009, https://fas.org/blogs/security/2009/07/tlam/; Yukio Satoh, *U.S. Extended Deterrence and Japan's Security*, Livermore Papers on Global Security No. 2 (Livermore, CA: Lawrence Livermore National Laboratory Center for Global Security Research, 2017), p. 19.

[92] Kane, "Global U.S. Troop Deployment, 1950-2005."

forces in Japan, however, did not accompany force relocation from forward to rear areas, which slightly discredits my argument (partially correct prediction).

Lastly, the collapse of the Soviet Union improved Japan's security environment. The event had left Japan free from any explicit external threat. However, China took over the position as Japan's main external enemy from the Soviet Union. China began to rise in the early 2000s, and a territorial dispute ensued in earnest over the Senkaku/Diaoyu islands between Tokyo and Beijing in 2010.[93] To be sure, North Korea's nuclear armament posed a threat to Japan's security. Arguably, however, a North Korean nuclear threat had little to do with either a threat of armed attack against Japanese troops operating in international waters and airspace or a threat of direct invasion of Japan's territory. Instead, China was a more likely candidate for using force against Japanese troops and Japan's territory in the maritime dispute.

With regards to the Japan-China conflict dyad, the US would have had a sanguine threat perception and an optimistic assessment of Japan's self-reliant deterrence capabilities against China. First on the assurance front, it was generally viewed that a Chinese threat was confined to the tiny rocks that fell short of Japan's existence *per se*. That is, China did not attempt to wage an all-or-nothing showdown with Japan, aiming solely for the occupation of the disputed islands instead. Neither has Japan perceived China's territorial claims as an existential threat. Few Japanese people think that China now poses an existential challenge for their survival in the conflict.[94]

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[93] Sanaa Yasmin Hafeez, "The Senkaku/Diaoyu Islands Crises of 2004, 2010, and 2012: A Study of Japanese-Chinese Crisis Management," *Asia-Pacific Review* 22, no. 1 (2015); Tongfi Kim and Luis Simón, "A Reputation versus Prioritization Trade-Off: Unpacking Allied Perceptions of US Extended Deterrence in Distant Regions," *Security Studies* (forthcoming).

[94] To be sure, in theory, there is a possibility of all-out war between the two states due to inadvertent escalation of the minor territory dispute. Nevertheless, it is broadly alleged that major war is a very unlikely scenario and neither state is likely to take the risk. For example, see, Richard A. Bitzinger and Barry Desker, "Why East Asian War Is Unlikely," *Survival* 50, no. 6 (2008); Trefor Moss, "7 Reasons China and Japan Won't Go to War: Even as Tensions between Beijing and Tokyo Grow by the Day, There Are Good Reasons to Believe Outright Conflict Can Be Avoided," *The Diplomat*, February 10, 2013; Paul Dibb, "Why 2014 in Asia Will Not Be a Repeat of 1914

Next, on the deterrence front, Japan has been estimated to possess one of the most powerful air and naval powers in the region.[95] Specifically, in the early 2000s, a pundit assessed that Japan possessed an "air force that could defend its airspace from any realistic threat" and its "sea control capabilities are as good or better than most of the world's great powers."[96] The local-combat-power ratio (2.45:1) as of 2010 is consistent with the foregoing measurement of the deterrence factor. Given Japan's robust self-defense capabilities, the US was unlikely to judge that China would win a quick victory against Japan in the event of a maritime dispute in the East China Sea.

If a given case is characterized by the combination of "non-existential" and "low," my theory predicts that the US will adopt a "conventional defense pact" strategy toward Japan. However, up to now, the US has been adopting a "nuclear defense pact" strategy, providing an extended *nuclear* umbrella over Japan in a verbal and documentary manner.[97] In conclusion, the last sub-period of the Japan case does not support my theory.

US Extended Deterrence to NATO-Europe (1949-1991 (O)/1991-2014 (unclear)/2014-present (Δ))

The US founded the Northern Atlantic Treaty Organization with 10 European countries and Canada on April 4, 1949 (ATOP ID: 3180).[98] The US participation in the multilateral alliance

in Europe," *East Asia Forum*, March 18, 2014.

[95] Kyle Mizokami, "Sorry, China: Why the Japanese Navy Is the Best in Asia," *The National Interest*, October 16, 2016; Charile Gao, "Japan's Air Force: The Best in Asia?: Thanks to Lots of American-Made Planes—Like the F-35—It Is Certainly in the Top-Tier," *The National Interest*, February 19, 2018; Robert Farley, "These Are the 3 Most Powerful Air Forces in All of Asia," *The National Interest*, May 17, 2019.

[96] Jennifer M. Lind, "Pacifism or Passing the Buck? Testing Theories of Japanese Security Policy," *International Security* 29, no. 1, p. 97; p. 100.

[97] For example, see, "Readout of the President's Call with Japanese Prime Minister Shinzo Abe," The White House, updated February 13, 2013, https://obamawhitehouse.archives.gov/the-press-office/2013/02/13/readout-presidents-call-japanese-prime-minister-shinzo-abe; Nikkei, "Us to Reaffirm Nuclear Umbrella over Japan," *Nikkei Asian Review*, August 14, 2017.

[98] ATOP Coding Sheet, "ATOP ID: 3180."

was intended to protect war-weary European members from a threat of the Soviet armed aggression in the Continent. Article 5 of the alliance treaty stipulates the collective defense system on which the alliance was based.[99] Article 5 states:

> "The Parties agree that an armed attack against one or more of them in Europe or North America shall be considered an attack against them all and consequently they agree that, if such an armed attack occurs, each of them, in exercise of the right of individual or collective self-defense recognized by Article 51 of the Charter of the United Nations, will assist the Party or Parties so attacked by taking forthwith, individually and in concert with the other Parties, such action as it deems necessary, including the use of armed force, to restore and maintain the security of the North Atlantic area."[100]

On the assurance front, European members were deemed to face a Soviet existential threat. When designing the NATO system, US leadership paid attention to a goal sought by the Soviet Union toward Western Europe when evaluating the type of threat posed to European clients. By that time, the US understood that Soviet expansionism was driven by its ideological and doctrinal creed to engulf the capitalist West. It appeared evident to American leaders that "communist ideology affords, then, a key to past, present, and future Soviet behavior."[101] The National Security Council (NSC)-7 document assessed that since Soviet expansionism was led by irreconcilable communist dogma, "the peaceful co-existence of communist and capitalist states is in the long run impossible."[102] In other words, from Washington's perspective, the driving force behind the potential Soviet invasion of Western Europe was not territorial or tangible ambitions over a certain region. Rather, it was driven by a more fundamental goal: political absorption of the Western European regimes into a communist system. A Soviet threat, therefore, was inherently hard to be ameliorated and accommodated. The possibility of an

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[99] The full text of NATO alliance is available at "The North Atlantic Treaty," NATO official website, https://www.nato.int/cps/en/natolive/official_texts_17120.htm. Also, see, ATOP Coding Sheet, "ATOP ID: 3220."
[100] Ibid.
[101] Central Intelligence Agency (CIA), ORE 91-49, "Estimate of the Effects of the Soviet Possession of the Atomic Bomb upon the Security of the United States and upon the Probabilities of Direct Soviet Military Action." April 6, 1950, pp. 13-14, CIA Freedom of Information Act Electronic Reading Room (hereafter, CIAERR).
[102] *FRUS*, 1948, Vol. 1, Part. 2, General; The United Nations (Washington, DC: GPO, 1976), Document 11.

"ultimate inevitable conflict" with the Soviet Union would last as long as free states existed in Western Europe.[103] These points were reaffirmed in the NSC-20/4 document dated November, 1948.

> Communist ideology and Soviet behavior clearly demonstrate that the ultimate objective of the leaders of the USSR is the domination of the world. Soviet leaders hold that the Soviet communist party is the militant vanguard of the world proletariat in its rise to political power, and that the USSR, base of the world communist movement, will not be safe until the non-communist nations have been so reduced in strength and numbers that communist influence is dominant throughout the world. The immediate goal of top priority since the recent war [the world war II] has been the *political conquest* of western Europe. [emphasis added].[104]

In the same vein, NSC-68 pointed out that "Soviet efforts are now directed toward the domination of the Eurasian land mass," for accomplishing "the complete subversion or forcible destruction" of non-Soviet countries and "their replacement by an apparatus and structure … controlled from the Kremlin."[105] Simply put, US leaders in the late 1940s believed that the Soviet Union would invade Western Europe to accomplish *political absorption* of European clients, usurping their sovereignty.

The aggressive Soviet ambitions put Western Europe under an acute threat environment. Predictably, therefore, the US perceived Soviet aggressiveness toward Western Europe as a dire threat: an *existential* threat to Western European clients. The NSC 100 succinctly summarized the gravity of the US's threat perception as follows: "The United States and its allies of the free world are fighting a war for *survival* against the aggression of Soviet Russia [emphasis added]."[106]

This dire threat assessment persisted for the rest of the Cold War. Despite the fact that there

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[103] Ibid.
[104] *FRUS*, 1948, Vol. 1, Part. 2, Document 61.
[105] *FRUS*, 1950, Vol. 1, National Security Affairs; Foreign Economic Policy (Washington D.C.: GPO, 1977), Document 85.
[106] *FRUS*, 1951, Vol. 1, *National Security Affairs*; Foreign Economic Policy (Washington D.C.: GPO, 1974), Document 4.

was an ebb and flow in the degree of communist threat posed to Western Europe (e.g., détente in 1960s, Soviet invasion of Czechoslovakia and Afghanistan, and the thaw of Cold War hostilities in the late 1980s), the US view that NATO-Europe faced an existential threat remained profoundly unchanged until the dissolution of the Soviet Union. For example, even at the height of détente during the early to mid-1970s, US intelligence reports warned that the Soviet position toward the West, due to its ideological dogmatism and hegemonic ambitions, "will remain antagonistic to the West" and will "press their challenge to Western interests with increasing vigor."[107] Another intelligence paper judged that the Soviet's recent staggering armament was intended to prepare for a Third World War and would be better understood as an instrument for aggressive "intimidation or conquest" of "the capitalist camp."[108]

The vigilant standpoint lasted until the eve of the Soviet collapse in 1991. The *US Department of Defense (DoD)'s Annual Report to Congress* of 1990 states that "Even if Gorbachev carries out his [arms reduction] proposal, however, the threat to Western security posed by the residual forces will remain significant."[109] Later the report concludes that "The Soviet Union remains the major threat to the security of Western Europe. … In sum, the threat to Western Europe's security has by no means diminished."[110]

To sum up, the US leadership perceived that European-NATO clients' survival was consistently put at risk by the Communistic bloc during the entire Cold War era. Although East-West relations sometimes improved to varying degrees, the US threat assessment mostly remained the same. The grim threat assessment—that NATO-Europe was under an existential

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[107] *FRUS*, 1969-1976, Vol. 14, *Soviet Union* (Washington D.C.: GPO, 2006), Document 133.
[108] CIA, "Intelligence community experiment in competitive analysis Soviet strategic objectives and alternative view report of team 'B'," Document no. CIA-RDP91M00696R001000110006-8, p. 46, CIAERR.
[109] Frank C. Carlucci (The U.S. Secretary of Defense), *1990 Annual Report to the Congress* (Washington D.C.: GPO, 1990), p. 19. Available at https://history.defense.gov/Historical-Sources/Secretary-of-Defense-Annual-Reports/.
[110] Ibid, pp. 49-50.

threat posed by the communist bloc—continued until the demise of the Cold War.

Next, on the deterrence front, since the Cold War confrontation became evident in the late 1940s, the predominant view within American decision-making circles was that the Soviets would undoubtedly swiftly overrun the US's European clients. Such a gloomy assessment was continuously prevalent among US leaders throughout the entire Cold War era. Certainly, from the mid-1940s to the early-1950s, many US military intelligence reports expressed with one voice that should war occur, Soviet forces would sweep through the entirety of the Eurasian continent in a few months.[111] For example, the JWPC (Joint War Plans Committee) report of April 27, 1946 predicted that the Soviet peacetime strength as of July 1, 1947 would be 113 active Red Army divisions composed of 1,561,000 troops. Additionally, it was estimated that there would be a total 82 Soviet satellite divisions in states occupied by the Soviet Union.[112] A year later, the JWPC evaluated Soviet military capabilities even higher. Soviet army forces available on June 1, 1947 (M-Day) were estimated at 2.7 million troops. Thirty days from M-Day, these forces were expected to expand to 5 million troops, of which it was estimated that 3.7 million (220 divisions) would be available for actual combat operations.[113]

The JWPC assessed that the Soviet speed of advance into Western Europe would be very rapid. Advancing towards four main thrusts, Soviet troops would reach the Rhine between D+5 and D+10 and completely occupy Denmark by D+10. Soviet vanguard troops were estimated to reach the outskirts of Paris by D+25, and to penetrate through the north German plain, arriving at the Pyrenees by about D+50.[114] It was estimated that a total of 50 line divisions and

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[111] For example, Joint Intelligence Committee (JIC) 435/12, "Soviet Intentions and Capabilities, 1949, 1956/7," 30 November 1948; *FRUS*, 1948, Vol. 1, Part. 2, Document 13; JCS 1866/16, "Study of the Impact on National Security of Military Assistance to the Western Union Nations," 5 August 1948; CIA, NIE-3, "Soviet Capabilities and Intentions," Document no. 0000269240, CIAERR.

[112] JWPC, 432/3, "Joint Basic Outline War Plan: "PINCHER,"" 27 April, 1946. p. 27.

[113] The US intelligence reports estimated that the Soviet Union probably would have launched mobilization 30 to 45 days prior to D-Day. For example, see JWPC, 474/1, 15 May, 1947, "Strategic study of western and northern Europe," p. 46.

[114] JIC 435/12, "Soviet intentions and capabilities 1949, 1956/57," pp. 40-41.

3,800 to 4,800 tactical aircraft would initially be employed for a Soviet massive blitzkrieg aggression against Western Europe.[115]

The grim perspective concerning a deterrence dimension remained unchanged until the eve of the end of the Cold War. Rather, it had been aggravated over time. According to a 1989 US Department of Defense's time-series analysis, for example, "the [Warsaw] Pact's advantage in initially available pre-hostility ground force combat potential" in Central Europe "increased significantly between 1965 and 1987."[116] This measurement is further strengthened by the local-combat-power ratio between the opposing sides. The ratio of the Soviet Union and satellites' adjusted CINC score to the US frontline client(s)'s CINC score is 9.43:1, 6.26:1, and 4.26:1, as of 1949 and 1955, and 1990, respectively. In summary, the Soviet Union's chances of achieving a rapid victory against European clients in the event of war seemed to be consistently high during the entire Cold War era.

As predicted, the combination of a Soviet existential threat and the high likelihood of a quick Soviet victory against European clients led the US to adopt a "forward nuclear deployment" strategy. Adopting "forward nuclear deployment" was executed through two phases. First, the nuclear-based NATO alliance was formed on April 4, 1949. In the first years of the NATO formation, the US extended deterrence strategy took the form of *quasi*-forward nuclear deployment, without a US forward nuclear presence in Europe. As low-yield tactical nuclear weapons (TNWs) were developed in 1953, the deliberate and discriminate use of nuclear weapons against battlefield enemy targets at short ranges became feasible. After going through two-year procedures to fit TNWs into the US military planning and strategy, the US TNWs with delivery platforms began to be introduced into Europe between 1954 and 1955.[117]

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[115] Ibid.

[116] Frank C. Carlucci (The U.S. Secretary of Defense), *1989 Annual Report to the Congress* (Washington D.C.: GPO, 1989), pp.30-31.

[117] According to Norris, Arkin and Burr's study, "various types of fission and fusion bombs and other nuclear

The forward nuclear deployment was accompanied by the *pre-delegation* of the right to use forward-deployed nuclear weapons to the Supreme Allied Commander Europe (SACEUR).[118] As a result, from 1954 onwards, the US strategy toward NATO-Europe took the shape of the full-fledged version of 'forward nuclear deployment.'

Regarding a conventional dimension, large-scale US conventional shield troops were deployed in forward areas from the outset in 1949. Specifically, about 120,000 American troops were deployed there as of 1950, of which about 98,000 were stationed in West Germany.[119] Notably, among them, a few thousand US troops (e.g., the 3rd Infantry Regiment as of July 1946) were deployed in the Berlin occupation zone, functioning as "tripwire" forces. Besides, the rest of the large-scale US troops, who were densely stationed east of Bonn (areas between the inter-German border and Bonn), composed a robust defense shield. The main task assigned to the American forces in Europe was to conduct a "fighting retreat" to the Rhine in case of war, seeking to delay the enemy advances with significant resistance.[120] Simply put, the US extended deterrence over NATO-Europe relied on the mix of a forward nuclear sword and an invariantly strong conventional shield. The US continued to adopt "forward nuclear deployment" during the entire Cold War era. In short, the first sub-period is consistent with my

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weapons were introduced in Britain in September 1954; West Germany, March 1955; Italy, April 1957; France, August 1958; Turkey, February 1959; Netherlands, April 1960; Greece, October 1960; and Belgium, November 1963." Robert S. Norris, William M. Arkin, and William Burr, "Where They Were," *Bulletin of the Atomic Scientists* 55, no. 6 (November/December 1999): p. 29. For a more detailed history of US deployment of TNWs in Europe during the Cold War, see, Hans M. Kristensen, *U.S. Nuclear Weapons in Europe: A Review of Post-Cold War Policy, Force Levels, and War Planning* (Washington D.C.: Natural Resources Defense Council, 2005), pp. 24-29; "U.S. Nuclear Weapons in Europe, 1954–2004," *Bulletin of the Atomic Scientists* 60, no. 6 (2004).

[118] Since the use of nuclear weapons was at his own discretion, he could judge from a purely militaristic perspective, disregarding forthcoming political ramifications for the world politics. See, following declassified archival resources that support this point: http://nsarchive2.gwu.edu/news/19980319.htm and http://nsarchive2.gwu.edu/NSAEBB/NSAEBB45.

[119] Kane, "Global U.S. Troop Deployment, 1950-2005." This dataset is available at https://www.heritage.org/defense/report/global-us-troop-deployment-1950-2005.

[120] Ross, *American War Plans, 1945-1950*, p. 91. The Rhine-Alps-Piave line (Rhine-Ijssel line in the Central front) was estimated to provide the best defensive position. This is because, "its successful defense would preserve the bulk of Europe's industrial and population resources. The line also presented formidable natural barriers to attacking forces." Ibid, p. 121.

theory's prediction.

Moving to the next period, the collapse of the Soviet Union in 1991 freed NATO-Europe from any apparent external threat. The US and European clients did not perceive Russia as a potential attacker or the adversary that should be deterred for the next two decades. Such a peaceful mood ended as Vladimir Putin Russia suddenly invaded and annexed Crimea in March 2014. During the interim period, therefore, a main target of US extended deterrence to NATO-Europe was undetermined and thus agnostic. With no clear common external threat posed to the European clients, member states maintained different voices regarding the issue of target setting and the geographical scope of the multilateral alliance that its alliance commitments apply.[121] Hence, this study codes a target of extended deterrence during the period (1991-2014) as "unclear," and does not explore the period.

As mentioned above, the Ukraine crisis and Russia's annexation of Crimea in 2014 were a critical juncture. These events particularly alarmed NATO's eastern flank countries (the Baltic-NATO countries).[122] Although Ukraine was not a NATO member, Eastern European NATO members were concerned that a similar scenario could happen to them—especially NATO states with a high proportion of ethnic Russians, such as Latvia and Lithuania.[123]

On the assurance front, for example, top Russian officials sent ominous warnings to Latvia that they would defend their Russian compatriots suffering from discrimination in Latvia,

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[121] For example, see, John S. Duffield, NATO's Functions after the Cold War, *Political Science Quarterly* 109, no. 5 (Winter 1994-1995), 763-87; Lawrence S. Kaplan, *NATO Divided, NATO United: The Evolution of an Alliance* (Westport, CT: Praeger Publishers, 2004), Chapter 6.

[122] For example, see NPR, "Russia's Annexation of Crimea Worries Baltic Nation Of Latvia," *NPR*, July 14, 2014; Cecily Hilleary, "Crimea Annexation Causes Jitters in Baltic States," *VOA News*, March 27, 2014; Ott Ummelas, "Baltic Leader Set to End Decade-Long Silence by Meeting Putin," *Bloomberg*, April 18, 2019.

[123] More specifically, the proportions of Russian ethnic origin in the Baltic states follows: Latvia: 34% → 27%, Estonia: 30% → 25%, Lithuania: 9% → 6% (as of 1991 and 2015, respectively). "The Republic of the Former Soviet Union and the Baltic States," Russia Subject Files, [OA/ID] CF01613. On this matter, the US report made in the early 1990s had already pointed out that Russia might invade the Baltic States in the future, under the pretense of defending Russian-speakers living there. See, CIA, "Moscow's Leverage over the Baltic Republics," 1990, in R. Nicholas Burns Files, [OA/ID]CF01487, George H. W. Bush Presidential Library, College Station, Texas.

opening up the possibility of Russia's direct military intervention in the name of protecting them.[124] Similarly, President Putin stated at a Kremlin ceremony of 2014 (as he annexed Crimea) that when the Soviet Union began breaking apart in 1991 "millions of people went to bed in one country and awoke in different ones, overnight becoming ethnic minorities in former union republics, while the Russian nation became one of the biggest, if not the biggest ethnic group in the world to be divided by borders."[125] This aggressive and assertive rhetoric has made Baltic-NATO anxious that Moscow might attempt to *politically absorb* the pro-western incumbent regimes by conducting a large-scale invasion.[126] For example, a recent Estonian Foreign Intelligence Service report declared that "the only existential threat to Estonia's sovereignty is a potential Russian military operation against the Baltic states."[127] Echoing the client's perspective, NATO Supreme Allied Commander, U.S. Air Force General Philip Breedlove testified that Russia has posed "a long-term existential threat" to European clients.[128] American analysts also envisaged that should Russia invade the Baltic-NATO states, it would aim to deprive them of sovereignty, rather than to occupy their particular territories or to degrade their state authority.[129] Relatedly, some pundits have warned the possibility of Russian infiltration of the Baltic states aiming at weakening their state authority.[130] As I discussed in the main text, when the adversary is assessed to pursue multiple goals in a given case, a patron's threat perception is formed based on the most severe one. Taken together, it

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[124] Michael Birnbaum, "In Latvia, Fresh Fears of Aggression as Kremlin Warns About Russian Minorities," *The Washington Post*, September 27, 2014.
[125] Quoted from "Russian President Putin Builds Ties in Moldova, Kazakhstan and Baltics," *The Washington Post*, May 17, 2014.
[126] "In Tense Confrontation with Russia, a Battle over History Suggests Cold War Never Ended," *The Washington Post*, July 3, 2016.
[127] Cited in Olevs Nikers, "Baltic Intelligence Agencies Increasingly Worry About Threats From China in Addition to Russia," *Eurasia Daily Monitor* 17, no. 41. https://jamestown.org/program/baltic-intelligence-agencies-increasingly-worry-about-threats-from-china-in-addition-to-russia/.
[128] Radio Free Europe/Radio Liberty, "Nato Commander: Russia Poses 'Existential Threat' to West," *Radio Free Europe/Radio Liberty*, February 25, 2016.
[129] For example, see, David A. Shlapak and Michael W. Johnson, *Reinforcing Deterrence on NATO's Eastern Flank: Wargaming the Defense of the Baltics* (Santa Monica, CA: RAND Corporation, 2016).
[130] For example, see, Matthew Kroenig, "Facing Reality: Getting NATO Ready for a New Cold War," *Survival* 57, no. 1 (February-March 2015): 49-70.

would be reasonable to conclude that a Russian threat posed to NATO-Europe over the last eight years was an existential threat.

On the deterrence front, when three Baltic states joined NATO in 2004, NATO became coterminous with mainland Russia for the first time since the end of the Cold War. What was worse, under Putin's leadership, Russia had achieved a substantial arms build-up over the previous decade, sending a warring message to NATO's eastern flank.[131] In March 2019, Russian Defense Minister Sergei Shoigu boasted of Russia's recent remarkable arms build-up in his speech to lawmakers. According to him, "The Russian military has commissioned more than 1,000 new aircraft and thousands of tanks in the past few years in a massive modernization effort amid tensions with the West," thereby bolstering highly mobile and powerful troops.[132] In short, Russian troops are estimated to possess overwhelming superiority over at least the three NATO Baltic states, both in qualitative and quantitative dimensions, as of 2019.

American policymakers and practitioners have also revealed their apprehensions about Moscow's adventuristic invasion engulfed by an optimism for a quick victory. Recent wargames conducted by the Rand Corporation provide a daunting message based on sophisticated estimations. The outcome of the wargames shows that Russian ground troops could overrun the Baltic states and "reach the outskirts of the Estonian and/or Latvian capitals" between 36 and 60 hours after the outbreak of hostilities.[133] As of 2014, Russia's adjusted CINC score was approximately 22 times larger than the Baltics' combined CINC score (21.81:1). This figure confirms that the preceding measurement of the deterrence factor is correct. In conclusion, US leaders were also likely to judge that Russia's quick victory against

[131] Gardiner Harris, "Jim Mattis, in Lithuania, Reaffirms U.S. Commitment to Nato," *The New York Times*, May 10, 2017; James Stavridis, "Putin's Big Military Buildup Is Behind Nato Lines," *Bloomberg* October 20, 2018.
[132] Vladimir Isachnkov, "Russian Defense Ministry Boasts About Revived Military Power," *Associated Press*, March 11, 2019.
[133] Shlapak and Johnson, *Reinforcing Deterrence on NATO's Eastern Flank*, p. 1

NATO-Europe would be highly likely in the event of war.

To sum up, when the enemy poses an existential threat to a client and the former's swift victory seems highly likely, my theory predicts that a nuclear patron adopts a "forward nuclear deployment" strategy. Indeed, the US's actual strategy toward NATO-Europe corresponds to the predicted strategy—forward nuclear deployment. Although the size of forward-deployed nuclear weapons has been significantly reduced, the US still retains TNWs in five European clients.[134] It is known that about 150-200 nuclear bombs are currently deployed in Europe.[135]

With regards to conventional forces, the number of American conventional troops in Europe has declined since 1991. Today, around 65,000 American troops remain in Europe, which is "an 85 percent decrease in personnel and 75 percent reduction in basing from the height of the Cold War."[136] Certainly, the current number of US troops is much smaller than that of previous years. Russia's ground troops have also significantly declined to 280,000 (as of 2019). However, the current 65,000 troops should not be dismissed as small token units.[137] The 65,000 American troops (nearly 25% of total Russian ground troops) can be classified as large-scale shield troops designed to withstand and delay a Russian invasion until reinforcements arrive at the battlefield.[138]

My theory's prediction, however, does not correspond to the US's behavior in terms of the

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[134] These five European-NATO clients include Belgium, Germany, Italy, Netherlands, and Turkey. B-61 nuclear free-fall bombs are designed to be delivered by the dual capable aircraft such as F-15 and F-35. For more detailed discussion of the US TNWs stationed in NATO-Europe, see, Robert S. Norris and Hans M. Kristensen, "Us Tactical Nuclear Weapons in Europe," *Bulletin of the Atomic Scientists* 67, no. 1 (2011).

[135] Hans M. Kristensen and Robert S. Norris, "Worldwide deployments of nuclear weapons, 2017," *Bulletin of Atomic Scientists* 73, no. 5 (2017), 294.

[136] Dakota L. Wood, ed., *2019 Index of U.S. Military Strength* (Washington D.C: The Heritage Foundation, 2019), 130.

[137] IISS, *The Military Balance, 2019* (London, United Kingdom: International Institute for Strategic Studies, Routledge, 2019).

[138] The 1991 NATO's *Strategic Concept* clarified that it is essential to maintain robust American conventional troops in Europe that "contribute to war prevention by ensuring that no potential aggressor could contemplate a quick or easy victory, or territorial gains, by conventional means." See, NATO, *The Alliance's Strategic Concept (1991)*.

location of prepositioned *conventional* troops in the post-Cold War era. My theory predicts that when a patron adopts 'forward nuclear deployment', the patron's robust conventional shield troops will be deployed in a forward area of the client—a place that is further forward of (in front of) the client's capital and, thus, is closer to the client-enemy border. For my theory to be correct, therefore, the US should have continuously moved its substantial number of conventional troops eastward, as NATO expanded eastward, since 1997. Belatedly, the US began to deploy battalion-size troops (approximately 3,000 to 3,500 troops)—so-called "Enhanced Forward Presence (EFP)"—to Poland and the Baltic states in 2016.[139] However, it is fair to believe the newly deployed EFP are *not* substantial shield troops capable of holding their defense lines quite a while. Rather the EFP battle group is closer to *tripwire* troops designed to ensure quick US intervention in the event of a Russian invasion. Besides, the EFP battle group was not based in an area east of Riga (Latvia's capital). Instead, it was mainly deployed in Poland.[140]

To sum up, the second sub-case of the US extended deterrence to NATO-Europe fully supports my theory in terms of "strategy adoption." However, the case only *partially* supports my theory in terms of "strategy implementation."

US Extended Deterrence to Pakistan (1959-1972 (O)/1972-1998(X))

On March 5, 1959, Washington and Karachi (Pakistan's former capital city)[141] signed "the Agreement of Cooperation between the Government of the United States of American and the

[139] NATO, Enhanced Forward Presence (EFP), https://lc.nato.int/operations/enhanced-forward-presence-efp; Mark Landler and Helene Cooper, "U.S. Fortifying Europe's East to Deter Putin " *The New York Times*, Febuary 1, 2016; BBC, "Us Tanks and Troops in Poland a Threat, Russia Says," *BBC*, January 12, 2017; Julian E. Barnes and Drew Hinshaw, "U.S. To Deploy Tanks to the Baltics," *The Wall Street Journal*, January 30, 2017.

[140] As I clarified in footnote 39 of the main text, in the case of a multilateral alliance (such as NATO), the most frontline client's capital (e.g., Riga [Latvia] for NATO-Europe today) becomes a reference point. Thus, in a conventional dimension, a place further east of Riga becomes a forward area for the entire NATO-Europe.

[141] Pakistan's capital was officially shifted from Karachi to Islamabad in 1967.

Government of Pakistan." The Article I of the bilateral pact (ATOP ID: 3355) stipulates that:

> "(Pakistan) is determined to resist aggression. In case of aggression against Pakistan, the (U.S.), in accordance with the Constitution of the United States of America, will take such appropriate action, including the use of armed forces, …, in order to assist the (Pakistan) at its request."[142]

Certainly, from the US perspective, the main external enemy Pakistan confronted in the late 1950s was India. Washington judged that the hostilities between the two states were rooted in the conflict over the disputed territory: Kashmir. For example, a CIA report of 1957 noted that "Kashmir has been the principal source of contention between India and Pakistan ever since the early months of their independence in 1947."[143] It added: "prospects are that the Kashmir dispute will continue to be a symbol and a major source of friction between India and Pakistan…"[144] The US State Department revealed the same perspective in 1957.

> Both India and Pakistan consider that their most vital foreign relations problems lie with each other…. The principal Indo-Pakistan dispute relates to Kashmir State and revolves around differing concepts of the status of that area. India claims that Kashmir has been a part of India since October 1947. Pakistan disputes this contention…. The overriding interest of the United States in the dispute is to facilitate a mutually-acceptable settlement.[145]

In short, from the US perspective, it seemed quite clear that a potential Indian attack on Pakistan would be aimed at occupying Pakistan-controlled Kashmir. This less greedy object helped lower the US threat perception. Despite the possibility of the all-out war between the two opponents through inadvertent escalation of the limited violence, Washington viewed it highly unlikely that the Kashmir question would bring about "the outbreak of major hostilities."[146] Echoing this perspective, the State Department forecasted in 1955 that "[a]lthough a settlement

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[142] ATOP Dataset coding sheet, "ATOP ID: 3355."
[143] CIA, "Probable Developments in the Kashmir Dispute," Special National Intelligence Estimate 50-57," 16 July 1957, 1.
[144] Ibid., 4.
[145] *FRUS*, *1955-1957, South Asia*, vol. 13 (Washington, DC: GPO, 1987). Document, 168.
[146] CIA, "Probable Developments in the Kashmir Dispute," 3.

of the Kashmir dispute remains highly improbable, Pakistan's relations with India are unlikely to worsen critically under the present regime."[147]

In short, when signing a bilateral pact with Pakistan, US leadership thought Indian antagonism against the ally, which mainly came from New Delhi's territorial claims over Karachi-controlled Kashmir, was not severe enough to jeopardize Pakistan's survival.

Next, on the deterrence front, the US assessment was relatively positive in the late-1950s. That is, the US did not think that Indian forces' quick annexation of the Kashmir region would be unlikely. This perspective seems to run counter to conventional wisdom that India possessed an overwhelming military superiority over Pakistan from the outset. Upon closer inspection, it was accepted in earnest to the US officials only after Islamabad's humiliating defeat in the Indo-Pakistani War of 1971 (also known as the Bangladesh War of Independence).[148]

Washington viewed that India possessed an apparent military edge over Pakistan both quantitatively and qualitatively in the late 1950s.[149] Simultaneously, Washington also considered that Indian ground forces were not yet mobile enough to swiftly crush and overrun Pakistani border guards, surmounting geographical obstacles unfavorable to the attacker in the Pakistan-administered Kashmir areas (e.g., Azad Kashmir and Gilgit-Baltistan)—the regions composed mostly of extremely mountainous, rugged, and hilly terrains.[150] For example, an American interagency intelligence report of 1953 concluded that:

> India is superior in existing combat strength and supply facilities…. However, in the event of a war between the two countries, India would face logistic difficulties of its

[147] *FRUS*, 1955-1957, vol. 13, Document 190.
[148] As a result of the Indo-Pakistani War of 1971, East Pakistan became an independent nation known as Bangladesh; Pakistan lost its control over East Pakistan.
[149] For example, see, CIA, Special National Intelligence Estimate No. 50-57, "Probable Developments in the Kashmir Dispute," 17 July 1957, CIAERR, 2; *FRUS*, 1955-1957, Vol. 13, Document 5; Document 6; Document 62.
[150] CIA, NIE-41, "Probable Developments in the Kashmir Dispute to the End of 1951," 4 September 1951, Document CIA-RDP79R01012A001200020010-4, CIAERR, 9-12; Leo E. Rose, "The Politics of Azad Kashmir," in *Perspectives on Kashmir: The Roots of Conflict in South Asia* (London: Routledge, 1992), ed. Raju G.C. Thomas, 237.

> own and probably would not be able to subdue Pakistan without a long and mutually exhausting struggle.[151]

Even, among young Pakistani military officers at the time, there was "a general tendency in military circles to disparage the fighting ability of the Indians."[152] In this regard, the two previous Pakistani wars with India over Kashmir of 1947 and 1965 were concluded without a decisive victory by either side.[153] Moreover, India experienced a crushing defeat against China in the Sino-Indian Border War of 1962. All these incidents fomented and bolstered optimistic and self-confident atmospheres among Pakistani leaders.[154] The client's optimism might have led the US to have a positive assessment of the deterrence factor. Relatedly, a recent study shows that the top US officials overestimated Pakistan's military capabilities until the eve of the client's quick defeat in the Indo-Pakistani War of 1971.[155]

Quantitatively, the estimated local-combat-force-ratio in the Indo-Pakistani dyad is 2.48:1 in India's favor.[156] The ratio lower than 3:1 also implies that the likelihood of India's quick achievement of its territorial claims in case of war with Pakistan was low.

In sum, it was assessed around the late-1950s that Pakistan confronted a "non-existential" threat from India and the likelihood of the adversary's quick victory against Pakistan would be "low." In this setting, my theory predicts that the US should have adopted a strategy of "conventional defense pact." Indeed, the US selected the predicted strategy. The actual strategy adopted by the US was also manifest as the predicted force posture—the absence of an

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[151] *FRUS*, *1952-1954*, *African and South Asia*, vol. 11, pt. 2 (Washington, DC: GPO, 1983), Document 620.
[152] CIA, "Probable Developments in the Kashmir Dispute," 3.
[153] "International Crisis Behavior Project Dataset (version 13)," Actor-level Data. Dataset is available at https://sites.duke.edu/icbdata/data-collections/.
[154] Raju G.C. Thomas, "Reflections on the Kashmir Problem," in *Perspectives on Kashmir*, ed. Thomas, 25-26; Haider Imtiaz, "1965: How Pakistan won the war of propaganda," The Nation, September 12, 2015.
[155] Christopher Clary, "Tilting at windmills: The flawed U.S. policy toward the 1971 Indo-Pakistani war," *Journal of Strategic Studies* 42, no. 5, 677-700.
[156] Following the Eugene software's dataset, here, I employ Islamabad as a reference city for Pakistan (the intercity distance between the two capitals is 426 miles). Unlike the Eugene software dataset, however, Karachi was Pakistan's capital city as of 1959. When employing Karachi as a reference city for Pakistan (the intercity distance between New Deli and Karachi is 676 miles), the ratio remains lower than 3:1 (1.72:1), reaffirming that India's victory was perceived to be unlikely at the time.

American forward nuclear and conventional military presence on Pakistani soil.

More specifically, no sizable US forces tasked with rapid response operations against invading Indian forces were deployed in forward areas of Pakistan. That is, no substantial American troops were they deployed to the further east parts of either Karachi or Islamabad or regions adjacent to Kashmir during the 1950s and the 1960s. Instead, during the period, the US established only a listening post (a surveillance facility) run by a few-hundred American units in Badaber, Peshawar, of Khyber Pakhtunkhwa Province in the northwestern region of Pakistan along the border with Afghanistan, and therefore, further *west* of Islamabad and Karachi.[157] The troops were charged with interception and monitoring of radio transmission targeted at Soviet communications and force movements.[158] Therefore, their duties were irrelevant to the protection of Pakistan from Indian aggression. In conclusion, the first sub-period of the Pakistan case corroborates the validity of my theory.

Next, segueing to the second sub-period of the Pakistan case, the US threat perception remained low from the early 1970s onward. Regardless of India's decisive victory in the Indian-Pakistani War of 1971, the American leadership consistently believed that India would not seek the entire elimination (political absorption) of Pakistan and that future Indian attacks on Pakistan would be driven by its territorial claims over Pakistan-controlled Kashmir.

For starters, India and Pakistan signed the historic Simla Agreement in 1972 to "put an end to the conflict and confrontation … and work for the promotion of a friendly and harmonious relationship and the establishment of durable peace in the sub-continent."[159] Despite the peaceful settlement of the 1971 war, the Pakistani leadership felt a greater threat from India

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[157] For example, see, *FRUS, 1969-1976*, vol. E-7, *Documents on South Asia, 1969-1972*, Document 38; "Peshawar Air Station Base Closing Ceremony," 6937th Communications Group Webpage, http://www.6937th.org/baseclosing.htm;

[158] "Eye in the Sky. US, Pakistan, U2 etc," Brown Pundits Webpage, July 31, 2014. Available at https://www.brownpundits.com/2014/07/31/eye-in-sky-us-pakistan-u2-and-so-on/.

[159] "Agreement on Bilateral Relations between the Government of India and the Government of Pakistan (Simla Agreement). The full text of the agreement is available at https://peacemaker.un.org/sites/peacemaker.un.org/files/IN%20PK_720702_Simla%20Agreement.pdf.

than before.[160] What was worse, India's nuclear armaments in May 1974 exacerbated Pakistan's apprehensions over the nuclear adversary's future aggressive intentions and offensive actions based on nuclear weapons.[161] With these points in mind, Vipin Narang assessed that nuclear India in the wake of the 1971 war posed an *existential* threat to Pakistan.[162]

However, the US and Pakistan's threat perceptions of Indian menace were incongruent with one another. That is, unlike the client's heightened threat perception, the US's threat perception remained low even after 1971 for two main reasons. First, both India and Pakistan spontaneously endeavored to fulfill the Simla Agreement. These efforts laid the groundwork for the slow but meaningful progress on the normalization processes in many ways. Second, the two states made efforts to restrain themselves from brazenly provoking or castigating each other. These upbeat developments in Indo-Pakistan relations led Washington to maintain a relatively sanguine threat assessment. The only concern that "remained unresolved but dormant" from Washington's point of view was the Kashmir issue.[163] In other words, US leaders believed that potential hostilities would end up coming down to an intractable territorial dispute over Kashmir.

More specifically, the US ambassador to India, Daniel Patrick Moynihan reported to Washington in 1974 that:

We believe India does want good relations with Pakistan, recognizes that further

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[160] *FRUS*, 1969-1976, vol. E-8, *Documents on South Asia, 1973-1976* (Washington, DC: GPO, 2007), Document 203.

[161] 1974ISLAMA05622, Telegram from American Embassy in Islamabad to the Secretary of State, 12 June 1974, AAD.

[162] Vipin Narang, *Nuclear Strategy in the Modern Era: Reginal Powers and International Conflict* (Princeton: NJ, Princeton University Press, 2014), 75-76.

[163] 1974ISLAMA11626, Telegram from American Embassy in Islamabad to the Secretary of State, 13 December, 1974. This telegram is available at Access to Archival Database (hereafter AAD), https://aad.archives.gov/. For additional materials reflecting the similar assessment, see, *FRUS*, 1969-1976, vol. E-8, Document 184; Document 201; Document 203; 1975NEWDE03811, Telegram from American Embassy in New Delhi to the Secretary of State, 19 March 1975; 1976ISLAMA05260, Telegram from American Embassy in Islamabad to the Secretary of State, 21 May 1976, AAD; 1976ISLAMA05279, Telegram from American Embassy in Islamabad to the Secretary of State, 22 May 1976, AAD; 1976NEWDE13056, Telegram from American Embassy in New Delhi to the Secretary of State, 3 September 1976, AAD.

> disintegration of Pakistan would not be in its interest, and has no intention of taking military action against Pakistan… Most likely, however, Kashmir will continue to be a sporadic irritant in India-Pakistan relations five or even ten years from now.[164]

Around that time, US Ambassador to Pakistan Henry A. Byroade, revealed a similar perspective in a telegram to Secretary of State Henry Kissinger, as follows.

> Hostility and suspicion will continue to characterize the Pak[istan] view of India, and the GOP [government of Pakistan] will go on seeking foreign support to ward off the danger of being "left alone" with India on the subcontinent…. This is not the happiest of prospects, but it is better than other scenarios, including those which were played in 1965 and 1971.[165]

Few months later, Byradoe sent another telegram to Washington. He added that although the current Indo-Pakistan relation "is a discouraging picture, it need not cause us serious concern."[166] Simply put, the US threat perception was cautiously optimistic from the 1970s onward.

Interestingly, even Pakistan's then-new Prime Minister, Zulfikar Ali Bhutto once revealed an alleviated threat perception. He remarked in a speech that "the GOP [government of Pakistan] welcomes a spirit of accommodation, adjustment and compromise on less [f]undamental[*sic*] problems and added that in a similar spirit all outstanding Indo-Pak problems, excepting Kashmir, have now been settled."[167]

In sum, from the US point of view, Pakistan's threat environment was not acute enough to put its survival in jeopardy. As shown above, American officials believed that India's potential invasion would be driven by nothing more than its territorial ambitions over the disputed Kashmir region, leaving the client's sovereignty intact. Consequently, the US threat perception remained low.

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[164] 1974NEWDE02779, Telegram from American Embassy in New Delhi to the Secretary of State, 26 February 1974, AAD.
[165] 1974ISLAMA11626.
[166] 1975ISLAMA09573, Telegram from American Embassy in Islamabad to the Secretary of State, 16 October 1975.
[167] 1976ISLAMA08120, Telegram from American Embassy in Islamabad to the Secretary of State, 5 August 1976, AAD.

The real change happened to the US in a *deterrence* dimension. Washington assessed that the likelihood of New Delhi's quick victory against Islamabad had increased significantly in the post-1971 period. The existing optimism among the US leadership over Pakistan's self-reliant deterrence capabilities against India diminished greatly after witnessing the client's crushing defeat in 1971 and the new regional balance of power that emerged thereafter. Importantly, the US's new perspective originated from Pakistan's recognition of a new reality. That is, previously overweening Pakistani leaders came to fully realize that the military balance of power was now tilted considerably toward India.[168]

For example, then-Chargé d'Affaires ad interim to Pakistan, Sidney Sober sent an analysis to Washington, noting that "From very beginning of his regime Bhutto has demonstrated fairly realistic understanding of implications Dec[ember] 1971 war, including decisive shift in subcontinent power balance…"[169] Similarly, in a conversation with an Indian Minister of Defence, Swarn Singh, Secretary Kissinger revealed a changed viewpoint on the deterrence front. Kissinger told him that "As I've pointed out in other meetings, we don't look at the area [Subcontinent] as one in which we're trying to create a balance of power. We don't consider Pakistan as in the same category, as you…."[170] In another meeting held on the same day, the Indian Foreign Minister stressed to Kissinger that "The events of 1971 had resulted in basic change in this situation and a recognition of new realities and India wanted this to continue."[171]

An interagency intelligence report of 1975 provided more detailed analysis of the force comparison between the two countries. The report also reflected the US's changed viewpoint that was formed in the aftermath of the 1971 war.[172]

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[168] Relatedly, Pakistan's recognition of the bleak situation motivated Islamabad to launch an indigenous nuclear program. Pakistan's Prime Minister Bhutto reached a conclusion shortly after the 1971 war that it was essential for his country to develop nuclear weapons to deter and defeat Indian aggression, which now possessed overwhelming conventional superiority over Pakistan.

[169] *FRUS*, 1969-1976, Document 103.

[170] Ibid., Document 180.

[171] Ibid., Document 182.

[172] One might wonder about the influence of India's nuclear development in 1974 on the US assessment of the

> The 1971 war with Pakistan demonstrated India's preeminence as a military power in South Asia. Pakistan has made improvements in its military capabilities since then, but its forces are no match for India's. Although the two armies are generally comparable in terms of leadership, morale, organization, training, and the competence of the individual soldier, the Indian armed forces are much larger and are generally better equipped. Even though the normal deployment of 11 divisions along the Chinese border constitutes a constraint, the Indians could divert five to six of the divisions, as they did in 1971, and overcome Pakistani defenses within a period of weeks.… [G]iven India's existing lead and its relative size, industrial strength and resource base, the gap in military capabilities between the two countries will widen.[173]

The local-combat-force-ratio of the second-sub case fully supports the US perception change since 1972. The ratio increases sharply from "2.48:1" (as of 1971) to "3.75:1" (as of 1972). Importantly, the ratio remains lower than 3:1 until 1971. Specifically, the ratio remarks 2.09:1 as of 1969, and 2.19:1 as of 1970, while the ratio remains higher than 3:1 from 1972.[174] The alteration in the ratio over time fully supports my qualitative measurement of the deterrence factor—to repeat, the likelihood of India's quick victory against Pakistan in potential war increased significantly after 1971.

To recap, the value of the assurance factor ("non-existential" threat) remained unchanged while that of the deterrence factor changed from "low" to "high." In this situation, my theory predicts that the US strategy toward Pakistan should have shifted from a "conventional defense pact" strategy to a "forward conventional deployment" strategy.

Contrary to my prediction, however, the US adhered to a conventional defense pact strategy. That is, it did not deploy a robust forward military presence in forward areas on Pakistani soil, such as regions located further east of Islamabad. Instead, the US extended deterrence to

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deterrence factor (the likelihood of an Indian quick victory against Pakistani forces). The archival material shows that its influence was not so decisive since the US believed that India's conventional superiority had already overwhelmed that of Pakistan after the 1971 war. For example, on the same day as India's first nuclear test, the US ambassador to Pakistan reported to Washington that "In real terms, the Indian test is irrelevant to the South Asian arms balance. India already has overwhelming superiority over Pakistan without a nuclear weapons capability." *FRUS*, 1969-1976, vol. E-8, Document 162.

[173] Ibid., Document 201. Also see, ibid., Document 155.

[174] More specifically, the values of the ratio in the five-year cycle are as follows: 1960: 2.43:1, 1965: 2.60:1, 1970: 2.19:1, 1975: 3.33:1, 1980: 3.04:1, 1985: 3.19:1, 1990: 3.20:1, 1995: 3.05:1.

Pakistan and continued to rely solely on rhetorical and textual conventional assurance without a forward military presence.[175] In conclusion, the second-sub period does not support my theory.

The period of the US extended deterrence over Pakistan ends in 1998. Pakistan officially became a nuclear-weapon state in that year by conducting its first nuclear test. To wit, the post-1998 period does not fall within the scope of this study.[176] The post-1998 period, therefore, is not considered in this study.

US Extended Deterrence to Panama (1977-1999 (O))

The US and Panama along with other Latin American countries established the Rio Pact in 1947 (ATOP ID: 3075). In 1977, the US and Panama signed another bilateral pact, called the *Panama Canal Treaty* (ATOP ID: 3795), which was distinct from a pact for the formation of the Rio Pact. The purpose of the Panama Canal Treaty of 1977 was to codify US obligations to protect the Panama Canal and the Panama Canal Zone—an area generally extending five miles on each side of the canal's centerline, not including Panama City and Colón.[177] The main target of the US distinct security umbrella over the Panama Canal was the Soviet Union. Article IV of the treaty stipulated:

> Article IV:
> 1. "The (parties) commit themselves to protect and defend the Panama Canal. Each Party shall act, in accordance with its constitutional processes, to meet the danger resulting from an armed attack or other actions which threaten the security of the Panama Canal or of ships transiting it."
> 2. "For the duration of this Treaty, the (U.S.) shall have primary responsibility to protect and defend the Canal."[178]

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[175] *FRUS*, 1969-1976, vol. E-8, Document 203.
[176] Recall that this study only examines cases of bilateral alliances where a patron is a nuclear-armed state and a client is a *non*-nuclear state, and those of multilateral alliances where a patron is a nuclear-armed state and a *majority* of clients are *non*-nuclear states, such as the NATO, the SEATO, and the Warsaw Pact.
[177] "Canal Zone," *Encyclopedia Britannica*, https://www.britannica.com/place/Canal-Zone.
[178] ATOP Coding Sheet, "ATOP ID: 3795." The full text of the treaty is available at https://2001-2009.state.gov/p/wha/rlnks/11936.htm.

It is worthwhile to examine the history of the Panama Canal before measuring the two independent variables. The US government started to build the Panama Canal in 1904. Construction was completed in 1914. The canal was owned and operated exclusively by the US government from that time until it was officially transferred to the Panamanian government in 1999.[179] In addition to the US security commitment to the canal, the 1977 treaty also contained a timetable for the transfer of the canal to Panama. The entire transfer process was scheduled to be completed on December 31, 1999, relinquishing all control over the Panama Canal with a complete handover of all areas and facilities located in the canal zone. On October 1, 1979, in the first phase, most of the area within the canal zone was turned over to Panama. However, the canal itself and several US military base areas remained under the jurisdiction of the US. Eventually, the canal and the remaining US enclaves within the canal zone were completely taken over by Panama by the end of the 20th Century, as planned.[180]

On the assurance front, the assessed severity of an external threat posed to Panama's security is self-explanatory: a non-existential threat. Washington was concerned about a potential Soviet invasion of Panama to strategically capture the Panama Canal, which served as an essential supply line to rescue European-NATO clients in the event of war with the Soviet Union. Specifically, the US infantry divisions "based in Hawaii, Washington State, and California would move by sea through the Panama Canal" and then cross the Atlantic Ocean in a military contingency in Europe.[181] Therefore, a Soviet seizure of the canal or its harassing attacks around the canal zone would have considerably hampered the ability of the US to

[179] For an overview history of the Panama Canal, see, Office of the Historian, "The Panama Canal and the Torrijos-Carter Treaties," Office of the Historian, Foreign Service Institute, United States Department of State, https://history.state.gov/milestones/1977-1980/panama-canal.
[180] "The Panama Canal Treaties: Terms of the Treaties," The Jimmy Carter Presidential Library, https://www.jimmycarterlibrary.gov/assets/documents/panama/terms.phtml.
[181] John K. Cooley, "Cuba-Soviet "threat" to US shipping lanes," *The Christian Science Monitor*, October 11, 1979, Document CIA-RDP06T01849R000200090039-3, CIAERR.

quickly send reinforcements to NATO-Europe. Particularly, the US leadership worried about the possibility of a potential sudden Soviet attack on the canal by exploiting the Soviet troops pre-deployed to Cuba.[182] Despite this concern, Washington did not predict that Moscow would seek control over an area larger than the canal zone, such as the political domination of the entirety of Panama. Therefore, the US threat perception was low.

Next, on the deterrence front, a variety of materials suggest that the US assessment of the client's self-reliant deterrence capability against the Soviet Union was very pessimistic. In other words, a Soviet quick victory in the event of hostilities over the canal zone was perceived to be highly likely.

As of 1977, Panama possessed a total of 8,000 indigenous military forces.[183] In contrast, about 2,600 to 3,000 Soviet combat ground forces and 8,000 to 10,000 Soviet intelligence and advisory units were stationed in Cuba at the time. In addition, Moscow regularly deployed its modern "naval reconnaissance aircraft and task groups" to Cuba.[184] Leaving the entire 3,900,000 Soviet troops aside, the Soviet forward military presence in Cuba alone arguably had a military edge over Panama. What was more, due to Cuba's geographic proximity to the Panama Canal—740 miles—Soviet troops in Cuba could be quickly moved into the canal area in a few days should the Kremlin decide to do so. In addition, Moscow could exploit its military bases in Cuba as a launching pad to blow a surprise attack on the Panama Canal through airborne and landing operations. Considering these points, a high-raking American naval officer warned in 1980 as follows.

> "Soviet naval vessels deployed to Cuba, especially when augmented by Cuban naval and air support can constitute a formidable task group which could be neutralized only by a major U.S. navy effort. In the event of general hostilities, such a task group could tie up U.S. forces needed elsewhere, threaten the Panama Canal...."[185]

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[182] Ibid.
[183] Correlates of War Project, National Material Capability Dataset (version 5.0).
[184] CIA, "White Paper on the Presence of Soviet Troops in Cuba," 1 October 1979, CIA RDP81B00401 000300010027-2, CIAERR; CIA, "Cuban Armed Forces and the Soviet Military Presence," Special Report No. 103, August 1982, Document CIA-RDP85M00363R001403210041-0, CIAERR.
[185] Remarks for Rear Admiral David M. Altwegg, "The Soviet-Cuban threat to South America," 1980, 10.

The local-combat-force-ratio of this case reaffirms this perspective. The Soviet Union's CINC score, discounted by the intercity distance, is 53.5 times higher than Panama's CINC score. In summary, multiple points of evidence indicate that the assessed likelihood of a quick Soviet victory against Panama's defensive forces in the event of a territorial incursion was high.

To sum up, the case of the US extended deterrence to Panama is characterized by the combination of a "non-existential" threat and a "high" likelihood. In this situation, my theory predicts that the US will adopt a "forward conventional deployment" strategy. Indeed, the US selected the predicted strategy.

The US deployed more than 10,000 troops in the canal area, including Panama City (Quarry Heights), and Colón—located beside the Caribbean Sea, lying right next to the Atlantic entrance to the canal.[186] The US strategically established a number of military facilities and installations on the Atlantic side of Panama, including Fort De Lesseps, Fort Davis, Fort Gulick, Fort Randolph, and Fort Sherman.[187] Importantly, their locations were closer than Panama City to the Soviet Union and Soviet military bases in Cuba. Furthermore, Headquarters for the US Southern Command (SouthCom), Special Operations Command-South, and U.S. Army South, SouthCom's Army component were established within the canal zone near Panama City.[188] Apparently, one of main duties assigned to the US troops in Panama was to repel

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Available at https://www.secnav.navy.mil/foia/readingroom/HotTopics/Argentina%20Declass%20Project/2017-ARG-0354%20The%20Soviet-Cuban%20Threat%20to%20South%20America,%2008.25.1980.pdf?Mobile=1&Source=%2Ffoia%2Freadingroom%2F%5Flayouts%2F15%2Fmobile%2Fviewa%2Easpx%3FList%3D31fcdf07%2Dc36d%2D4766%2D83de%2D57fcf89ac8ac%26View%3Dd386c8f1%2D7737%2D4e22%2D9cd0%2D950262d288e7%26RootFolder%3D%252Ffoia%252Freadingroom%252FHotTopics%252FArgentina%2BDeclass%2BProject%26wdFCCState%3D1.

[186] At its height, about 12,700 US forces were stationed in Panama. The phased drawdown in a five-year period began in 1994. Heritage Foundation, "US Global Troop Deployment, 1950-2005."

[187] WHOs Scroll, "Panama Canal Treaty Transition: Military Summary of Military Property Transfers and Military Forces Drawdown," http://william_h_ormsbee.tripod.com/treaty_trans_summ_mil_p01.htm; Ibid., "Military Bases and Panama Canal Areas: Atlantic Side," http://william_h_ormsbee.tripod.com/bases_list_map_links_p03.htm.

[188] Ibid.

external aggression and to retard enemy approaches to the canal.

The US did not provide a nuclear guarantee to the client in a physical or a textual/rhetorical manner. That is, the US did not deploy tactical nuclear weapons in the client's territory.[189] Besides, there is no evidence that the US made nuclear commitments to Panama through verbal or textual means. The US-Panama Treaty of 1977 expired on December 31, 1999, when the control of the canal was entirely returned to Panama.

In conclusion, the case of the US extended deterrence to Panama supports my theory.

US Extended Deterrence to the Philippines (1951-1974 (O)/1974-1992 (O)/1992-present (X))

The first two sub-periods of the Philippine case were already examined in the main text. Thus, I directly jump into the third sub-period of the Philippine case (1992-present). To inform in advance, the third sub-case of the Philippines does not match with my theory's prediction.

First, when it comes to an assurance dimension, the US threat perception regarding the Philippine question was not grave. The demise of the Soviet Union, combined with a peaceful resolution of hostilities with China over the Spratly islands, gave rise to the lax US vigilance against a communist threat to the Philippines.[190] Basically, Washington believed that the Philippines would be unlikely to get involved in an external threat in the foreseeable future.[191] Concerning a Chinese threat, most American experts predicted that despite the low possibility, if its threat of expansion re-emerged, the South China Sea would be "the likeliest spot for

[189] Fuhrmann and Sechser, "Appendices for "Signaling Alliance Commitments."'

[190] Renato Cruz de Castro, "The Revitalized Philippine-U.S. Security Relations: A Ghost from the Cold War or an Alliance for the 21st Century?," *Asian Survey* 43, no. 6 (2003): pp. 972-75. Also see, Ted Galen Carpenter, "The U.S. Military Presence in the Philippines: Expensive and Unnecessary," *Cato Institute Foreign Policy Briefing* No. 12 (1991); Jae-Jeok Park, "A Comparative Case Study of the U.S.-Philippines Alliance in the 1990s and the U.S.-South Korea Alliance between 1998 and 2008 Alliance (Dis)Continuation," *Asian Survey* 51, no. 2 (2011): p. 269.

[191] Castro, "The Revitalized Philippine-U.S. Security Relations," 972-75.

conflict to erupt."[192] However, they also believed that a Chinese expansion would merely aim at the ownership of all or part of the South China Sea, leaving the regional contested claimants' sovereignties intact.[193] In short, it was estimated that Beijing posed only a non-existential threat to the Southeast Asian client in the early 1990s.

From the early-1990s onward, the low threat perception has remained unchanged. US analysts have viewed that a Chinese military threat to the client derives from the enemy's territorial ambitions over the Philippine-controlled territories (e.g., Thitu Island, Second Thomas Shoal).[194] Relatedly, President Barack Obama once revealed a cautiously optimistic perspective of China's territorial aggrandizement in the contested zone. He stated that "where we get concerned with China is where it is … using its sheer size and muscle to force countries into subordinate positions." He then expressed his concern along with cautious optimism: "we think this [territorial conflict] can be solved diplomatically…"[195]

Next, with regards to a deterrence dimension, the lack of declassified documents prevents us from judging with certainty how American leaders viewed the Philippine's independent force capabilities vis-à-vis Chinese troops. Therefore, as an alternative way, this study surmises the US judgment of the likelihood of China's quick victory using secondary and circumstantial evidence. The secondary resources show that Chinese military troops outnumbered and outgunned the Armed Forces of the Philippines in the early 1990s (see Table A-7 and Table A-8 below).

	Army	**Navy**	**Air Force**	**Total**
Philippines	68,000	25,000	15,500	108,500

[192] Nicholas D. Kristof, "China Builds Its Military Muscle, Making Some Neighbors Nervous: Filling a Perceived Power Gap in Southeast Asia," *The New York Times*, January 8, 1993. Also see, Nicholas D. Kristof, "As China Looks at World Order, It Detects New Struggles Emerging," *The New York Times*, April 21, 1992; Marcus W. Brauchli, "Security Tensions Rise in Southeast Asia: Suspicions Simmer Privately as Defenses Are Altered," *The Wall Street Journal*, March 31, 1993.

[193] Kristof, "China Builds its Military Muscle, Making Some Neighbors Nervous."

[194] For example, see David E. Sanger and Rick Gladstone, "Piling Sand in a Disputed Sea, China Literally Gains Ground," *The New York Times*, April 8, 2015; Matthew Rosenberg, "China Deployed Artillery on Disputed Island, U.S. Says," *The New York Times*, May 29, 2015; Reuters, "South China Sea: Us May Consider Sending More Destroyers to Patrol Islands," *The Guardian*, February 24, 2016.

[195] BBC, "Obama: China 'Using Muscle' to Dominate in South China Sea," *BBC*, April 10, 2015.

China	2,300,000	260,000	470,000	3,030,000
Phil: China	2.96%	9.62%	3.30%	3.58%

Table A-7. The Number of Military Personnel (as of 1990/1991)
Source: International Institute for Strategic Studies (IISS), *The Military Balance 1990-1991,* Chapter. *"*Asia and Australasia," pp. 148-181.

Branch	Country	List
Navy	Philippines	Frigates: 2, Patrol and Coastal Combatants: 51, Amphibious: 7, Submarines: 0, Destroyers: 0
	China	Frigates: 37, Patrol and Coastal Combatants: 915, Amphibious: 58, Submarines: 93, Destroyers: 18
Air Force	Philippines	26 Combat Aircraft (Fighters: 2 squadron with 9 F-5)
	China	5,070 combat aircraft (of which Bombers: 450, Fighters: 4,000 (400 J-5, 3,000 J-6/B/D/E, 500 J-7, 50 J-8), and other units) + Naval Air Force: 824 shore-based combat aircraft

Table A-8. Main Weapon Inventory (as of 1990/1991)
Source: IISS, *The Military Balance 1990-1991,* Chapter. "Asia and Australasia," pp. 148-181.

Moreover, China's naval and air power capabilities have increased geometrically over the past two decades, shifting from its traditional army emphasis to navy and air force.[196] The rapid buildup of China's blue-water capabilities and long-distance air combat capabilities indicate the widening gap with the Philippines in terms of military might over the disputed waters, further increasing the possibility of China's quick victory against Filipino forces.[197] The ratio of China's adjusted CINC score to the Philippine's was 6.38 to 1 in China's favor. This ratio reaffirms my measurement of the deterrence factor ("high" likelihood) in the third sub-period.

All in all, this sub-period is characterized by the combination of "existential" and "high." In this setting, my theory predicts that the US would adhere to a "forward conventional deployment" strategy. Contrary to my prediction, the US extended deterrence strategy for the Philippines shifted to a "conventional defense pact" strategy. It is worth noting that the strategy shift was not caused by the US government's voluntary strategic decision. Instead, it was closer to a forced shift that resulted from the nationalistic Philippine Senate's rejection of a new

[196] Anthony H. Cordesman and Joseph Kendall, "China's Evolving Military Strategy and the Reorganization of the People's Liberation Army," *The National Interest*, August 29, 2016.
[197] International Institute for Strategic Studies, *The Military Balance 2016* (London, UK: Routledge, 2016): 284.

military base treaty with the US.[198] The Senate's rejection gave rise to the US's complete withdrawal from the Philippines in 1992.

About seven years after the abrupt strategy shift of 1992, the two countries signed the Visiting Forces Agreement (VFA) in February 1999, which paved the way for the stationing of small-scale US troops in the Archipelago on a temporary and rotational basis unlike the previous periods (permanent deployment). Since the signing of the VFA, the US has deployed a few-hundred troops in the rear area of the Archipelago. Specifically, the majority of small-scale American troops have been "predominantly deployed to the Mindanao island chain [Zamboanga City and nearby islands],"—thus, farther away than Manila from the Spratly Islands.[199] The main tasks of the US troops in the Archipelago are confined to non-combat missions, such as training Filipino troops to enhance their counter-insurgency capabilities and performing civilian affairs and humanitarian operations.[200]

To conclude, the US adopted a "conventional defense pact" strategy during the third sub-period of the Philippine case, and this does not support my theory.

§ The US nuclear presence in the Philippines (1957-1977)

Here, I briefly deal with the fact that the US reportedly deployed its tactical nuclear weapons in the Philippines between 1957 and 1977. Some partially declassified documents and secondary studies show that the US deployed its nuclear assets in the Archipelago over two

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[198] For more details of the Philippine Senate's rejection, see Uli Schmetzer, "Philippines Senate Rejects New Lease for U.S. Bases," *The Chicago Tribune*, September 16, 1991; Alex B. Brillantes Jr., "The Philippines in 1991: Disasters and Decisions," *Asian Survey* 32, no. 2 (1992): 140-45.

[199] Hader Glang, "Philippines: US military presence continues in south," October 25, 2017, *aa.com*, https://www.aa.com.tr/en/asia-pacific/philippines-us-military-presence-continues-in-south/946856.

[200] Ibid., U.S. Embassy in the Philippines, "U.S. and Philippine Special Forces Train to Counter Insurgency," February 27, 2020, https://ph.usembassy.gov/us-and-philippine-special-forces-train-to-counter-insurgency/; Caroline Baxter, "If U.S. Forces Have to Leave the Philippines, Then What?," The RAND Blog, https://www.rand.org/blog/2020/02/if-us-forces-have-to-leave-the-philippines-then-what.html; Ben Werner, "Philippines Freezes Pull-Out From Visiting U.S. Forces Agreement," June 8, 2020, *USNI News*, https://news.usni.org/2020/06/08/philippines-freezes-pull-out-from-visiting-u-s-forces-agreement.

decades.[201] When deploying nuclear weapons there, the US did not make any nuclear commitment to the Philippines government either verbally or textually. The US deployed nuclear weapons there without prior notification to the Philippine government. It has been recently revealed that Washington informed Philippine President Marcos of the US nuclear presence in his country about 10 years after the initial deployment.[202] If the nuclear deployment was intended to reassure the client and its leadership, there would be no reason for

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[201] These materials are divided into three groups:

1) First, prominent nuclear historians, Norris, Arkin, and Burr have revealed that US nukes were deployed in the Archipelago over the two decades. Their argument was built upon the partially declassified document, A History of the Custody and Deployment of Nuclear Weapons July 1945 Through September 1977, released in the late 1990s by the DoD. More specifically, the 345-page top secret document originally contains specific information on location, timeframe, and types of US nuclear weapons deployed overseas. The DoD released the document, however, in massively redacted form. Norris, Arkin, and Burr restore the sanitized information based on rational speculation. One of the US foreign nuclear bases identified by the authors is the Philippines. For more details on their method for identifying the redacted information, see, Robert S. Norris, William M. Arkin, and William Burr, "Where They Were," *Bulletin of the Atomic Scientists* 55, no. 6 (November/December 1999), pp. 26-35. Also, the sanitized version of the original DoD document is available at http://nautilus.org/wpcontent/uploads/2015/04/306.pdf.

2) Second, another group of supporting evidence for the US secret nuclear deployment comes from recently declassified top-secret documents, which contain the Nixon administration's internal discussions about its response to the Symington Subcommittee's investigation. The Symington Subcommittee of the Senate Foreign Relations Committee, chaired by Senator Stuart Symington, was organized to investigate US security agreements and commitments abroad. The declassified documents show that top Nixon administration officials were very concerned about the leak of a secret nuclear presence in the Philippines due to the Subcommittee's activities. The disclosure of the clandestine nuclear deployment was bound to unleash a huge political backlash in the Filipino society and eventually have a devastating effect on US-Philippines relations. As a result, President Richard Nixon issued a directive that all government witnesses should refuse to testify on nuclear deployments in the Philippines "on grounds of executive privilege." See, Robert McClintock, Office of Under Secretary for Political Affairs, to the Secretary, "Talking Points for Discussion with Senators Fulbright and Symington re Subcommittee Hearings on US Commitments Abroad," 25 September 1969; Robert McClintock to the Secretary and Acting Secretary, "Meeting of Kissinger Committee on Symington Subcommittee," 30 September 1969; Robert McClintock to Acting Secretary [Elliot Richardson], "Presidential Decision on Categories of Information for Symington Subcommittee to be protected by executive privilege," [30 September 1969], p. 2. All three documents are available at https://nsarchive2.gwu.edu/NSAEBB/NSAEBB197/index.htm. The National Security Archive Website.

3) Lastly, some secondary studies demonstrate that the US maintained nuclear forces in the Archipelago. See, Roland G. Simbulan, *The Bases of Our Insecurity: A Study of the US Military Bases in the Philippines* (Manila, Philippines: BALAI Fellowship, 1983); Ruby-Asuncion Turalba and Donna Willmott, *A Toxic Legacy: The U.S. Military in the Philippines and Puerto Rico* (San Francisco, CA: San Francisco State University–Department of Health Education, 2004).

[202] Telegram from Robert McClintock to Acting Secretary [Elliot Richardson], "Presidential Decision on Categories of Information for Symington Subcommittee to be protected by executive privilege," [c. 30 September 1969], Top Secret. This document is available at https://nsarchive2.gwu.edu//NSAEBB/NSAEBB197/nd-17c.pdf. The National Security Archive Website.

the US to hide it from the Philippines government. Rather, the former should have actively informed the latter of the nuclear deployment.

Why then did the US unilaterally deploy weapons to the Philippines? If their deployment was not designed to reassure the client, what drove the US to deploy them on the client's soil? The most primary documents that can solve the inquiries are still classified. Various evidence, however, strongly suggests that the US consideration of regional uncertainties caused by the outbreak of the Vietnam War led the US to deploy nuclear weapons in the Archipelago. In terms of timing, the period of nuclear deployment in the client (1957-1977) mostly overlaps with the period of the Vietnam War (1955-1975). As the war progressed, the US was increasingly concerned about the possibility of Chinese communists' full-scale intervention in the war.[203] Moreover, the US bases in the Philippines, including Clark Air Base and Subic Naval Base, functioned as springboards throughout the war from which American troops would be projected to the war theater.[204] In the face of intensifying communist threats from North Vietnam and Communist China, the US military prepared nuclear war and contingency plans in which American (nuclear) forces in the Philippines would be used to defeat massive joint communist attacks.[205]

In conclusion, nuclear weapons were deployed not to reassure the Philippines but to hedge against regional uncertainties caused by the Vietnam War. The fact that the US did not establish consultation machineries to discuss its nuclear commitment with the Philippines further warrants the point that the US nuclear presence was not pertinent to the client's protection. Thus, in this study, I do not regard the period of nuclear deployment as a testament to the US

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[203] *CINCPAC Command History 1964,* The Nautilus Institute for Security and Sustainability, p. 37, p. 52, p. 219. https://nautilus.org/foia-document/cincpac-command-history-1964/.

[204] Don Oberdorfer, "Accord Reached on 2 U.S. Bases, Aid to Philippines," *The Washington Post*, January 1, 1979; Magallona, *Military Bases and Nuclear Weapons*, pp. 21-28, pp. 48-49.

[205] *The Pentagon Papers: The Defense Department History of United States Decision making on Vietnam*, vol. III (Boston: Beacon Press, 1971), 666; Nina Tannenwald, *The Nuclear Taboo: The United States and the Non-Use of Nuclear Weapons Since 1945* (Cambridge, UK: Cambridge University Press, 2007), pp. 193-194.

adoption and implementation of a "forward nuclear deployment" strategy for the Philippines' security.

US Extended Deterrence to the Rio Pact (1947-1991 (O)/1991-present (unclear))

The US signed the Inter-American Treaty of Reciprocal Assistance (commonly known as the Rio Pact, or the Rio Treaty) with 22 other American states on September 2, 1947 (ATOP ID: 3075).[206] Including the US, 19 countries comprised the original signatories of the alliance.[207] Subsequently, 4 states gradually joined the alliance.[208] Member states voted to suspend Cuba's membership, thus Havana was expelled from the alliance in January 1962. The US defense commitments to member states in the event of external attack are based on Article 3 of the alliance pact.

> Article 3: "The (parties) agree that an armed attack by any State against an American State shall be considered as an attack against all the American States and, consequently, each one of the said Contracting Parties undertakes to assist in meeting the attack in the exercise of the inherent right of individual or collective self-defense."[209]

The Rio Pact was basically designed to be invoked to repel a potential external invasion. Amid the developing Cold War, the US wished to create an anti-communist bloc in the Western Hemisphere, by providing a security umbrella over Latin American states.

On the assurance front, the US perception of the Soviet threat posed to Latin American clients was not that dire in the late 1940s. This was basically because the Soviet's assessed objective toward the Western Hemisphere was not greatly ambitious but limited. More

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[206] ATOP Coding Sheet, "ATOP ID: 3075."
[207] The 19 founding member states include Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba (excluded in 1962), Dominican Republic, El Salvador, Guatemala, Haiti, Honduras, Mexico, Panama, Paraguay, Peru, United States, Uruguay, and Venezuela.
[208] The newly joined states with their accession dates are as follows: Nicaragua (10/15/1948), Ecuador (11/10/1949), Trinidad and Tobago (04/06/1967), and Bahamas (11/08/1982). ATOP Coding Sheet, "ATOP ID: 3075."
[209] Ibid.

specifically, Washington did not project that a potential Soviet invasion would aim at the very existence of a target client state. Rather, it would seek to weaken or disrupt the state authority over certain regions of the target client state. Therefore, Washington envisaged that the Soviet invasion against Western Hemisphere would take the form of an indirect armed attack, such as subversive and infiltration activities through irregular military units (guerillas or terrorists), rather than the form of direct and overt armed aggression through regular military units.[210]

In addition, some analysts analyzed that a Soviet threat to Hemispheric peace would originate from its limited ambitions for territorial expansion in the region. For example, a Western analyst stated that, in the Western Hemisphere, "the primary Soviet objective is gradually and cautiously to secure access to and maintain naval facilities so as to improve the projection of Soviet power."[211] That is, should the Soviet Union invade Latin American countries, its objective would be the territorial occupation of certain areas to obtain a bridgehead/foothold and an advanced base in the US backyard. In this respect, a *US Policy Planning Paper* published in June 1948 revealed relatively relaxed vigilance against a Soviet threat posed to American clients in the Western Hemisphere as follows:

> … (b) International Communism, consequently, is a direct and major threat to the national security of … the other American Republics; (c) This threat, at the present time, is a potential rather than an immediately serious one in Latin America generally, …[212]

Echoing the statement, Secretary of State Dean Acheson also judged in 1950 that "the American republics do not at this time face a threat of aggression comparable to that experienced by many countries [located in other regions]."[213]

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[210] CIA, SNIE 11/80/90-82, 1982, "Soviet Policies and Activities in Latin America and the Caribbean," CIAERR.
[211] Howard J. Wiarda *et al.*, *The Communist Challenge in the Caribbean and Central America* (Washington, DC: American Enterprise Institute for Public Policy Research, 1987), 90.
[212] *FRUS*, 1948, *The Western Hemisphere*, Vol. 9 (Washington, DC: GPO, 1972), Document 161.
[213] *FRUS*, 1950, *National Security Affairs; Foreign Economic Policy*, Vol. 1 (Washington, DC: GPO, 1977), Document 206.

Notably, Latin American clients' threat perception of external Soviet invasion was even lower than that of the US. From their perspective, the Soviet external threat was not severe. Rather, threats from domestic issues—guerilla movements, poverty, human trafficking, drug smuggling, etc.—were thought to be their gravest threats in the Cold War.[214] All in all, Washington perceived that its Latin American clients faced a non-existential threat from the Soviet Union during the Cold War period.

Next, on the deterrence front, the Soviet limited aggression against Latin American clients was likely to pay off. The Soviet Union already demonstrated its global power projection capabilities during World War II. The swift redeployment of massive Soviet troops from Eurasia to Cuba in 1962 was another testament to its robust capability to carry out infiltration/subversive operations or territorial aggression in the distant region. In contrast, as of 1948, Latin American clients, in general, frontline clients (Caribbean member states), in particular, possessed only tiny military forces armed with obsolete military equipment.[215] Thus, they were unable to effectively repel and crack down the Soviet incursions into their territories without a quick US intervention.

The estimated local-combat-power ratio of this case reaffirms this measurement of the deterrence factor. The Soviet Union's adjusted CINC score is estimated to be much higher than the combined CINC score of the frontline client states (Caribbean member states of the Rio

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[214] For example, see, Clare Ribando Seelke et al., "Latin America and the Caribbean: Illicit Drug Trafficking and U.S. Counterdrug Programs ", ed. Congressional Research Service (Washington, DC: Congressional Research Service, 2011); Gabriel Marcella, "The Transformation of Security in Latin America: A Cause for Common Action," *Journal of International Affairs* 66, no. 2 (2013); "How South America Has Avoided Interstate War," Geopolitical Futures, updated February 15, 2016, https://geopoliticalfutures.com/how-south-america-has-avoided-interstate-war/.

[215] As of 1949, the Caribbean member states (frontline states), Cuba, the Dominican Republic, and Haiti possessed 18,000 troops, 3,000 troops, and 15,000 troops, respectively. In the same year, the Soviet Union possessed 2,900,000 troops. The Soviet's huge numeric superiority over the frontline clients continued during the Cold War. See, Correlates of War Project, National Military Capability Dataset (version 5.0). For more evidence that show the Latin American states' military inferiority vis-à-vis the Soviet Union from the qualitative aspect, see, *FRUS*, 1949, *The United Nations; The Western Hemisphere*, Vol. 2 (Washington, DC: GPO, 1976), Document 332; Document 371; Document 471.

Pact)—ranging from 20.10:1 to 63.83:1, thus, much higher than the 3:1 threshold.[216] This outcome is somewhat predictable given that the enemy's global power projection capabilities and the Caribbean clients' nearly nil self-reliant deterrence capabilities from the late-1940s onwards.

The combination of the "high" likelihood of deterrence failure and the "non-existential" threat provides a prediction that the US would adopt a "forward conventional deployment" strategy during the Cold War era. Unlike the theory's prediction, however, the US adopted a "conventional defense pact" strategy instead. To explicate, the US has never deployed nuclear forces in either Caribbean or South American member states.[217] In addition, there is no evidence that it once provided a nuclear guarantee in a verbal or textual manner to reassure Latin American clients. Besides, the historical record shows that the US did not put massive conventional forces-in-being in frontline states (Caribbean member states), such as the Dominican Republic, Haiti, Barbados, and Trinidad and Tobago, to discourage a potential Soviet invasion in the Cold War period.[218]

Since the collapse of the Soviet Union, the target of deterrence under the Rio Pact has been unclear. Thus, I regard this period as an agnostic case where no explicit external enemy poses a threat of armed aggression to the Rio Pact's member states. In conclusion, the Rio Pact case

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[216] The frontline member states (Caribbean member states) of the Rio Pact varied over time. The local combat ratios that reflects membership changes are as follows. 20.10:1 (1947, Cuba, Dominican Republic, and Haiti), 63.83:1 (1962, Dominican Republic, and Haiti), 40.43:1 (1967, Dominican Republic, Haiti, and Trinidad & Tobago), 59.45:1 (1982, Bahamas, Dominican Republic, Haiti, and Trinidad & Tobago). See, ATOP coding book, "ATOP ID: 3075."

[217] Fuhrmann and Sechser, "Appendices for "Signaling Alliance Commitments.""

[218] Kane, "Global U.S. Troop Deployment, 1950-2005." The US deployed large-scale troops in Cuba Island before Cuba was expelled from the Rio Pact in 1962 (on average, approximately 5,000 American troops per year between 1950 and 1962). However, technically, they were stationed in the US offshore territory in Cuba Island (the US naval base at Guantanamo), but not in Cuba's territory. For more details on the US military presence in Guantanamo, see "Guantanamo: Memorandum for the President from Zbigniew Brzezinski," September 27, 1979, Jimmy Carter Presidential Library Digital Archive. Available at https://www.jimmycarterlibrary.gov/digital_library/sso/148878/133/SSO_148878_133_01.pdf; Carol Rosenberg, "91 Guantánamo Captives Vastly_Outnumbered by 2,000 Guards, Staff," *Miami Herald*, February 21, 2016; Patrick Oppmann, "Caimanera, Cuba: In This Isolated Cuban Town on Guantanamo Bay, They Still Call Americans 'the Enemy,'" *CNN*, July 1, 2018.

does not support my theory.

US Extended Deterrence to SEATO (1954-1977 (O))

On September 8, 1954, Australia, France, New Zealand, Pakistan, the Philippines, Thailand, the UK, and the US formed the Southeast Asia Treaty Organization (SEATO) (also known as the Manila Pact) (ATOP ID: 3260). "The purpose of the organization was to prevent communism from gaining ground in the region."[219] Although the treaty was called the "Southeast Asia Treaty Organization," only two Southeast Asian states participated in it. The Philippines joined due to its close ties with the US and concerns over "the nascent communist insurgency threatening its own government."[220] Thailand, similarly, joined due to apprehension about "Chinese communist subversion on its own soil."[221] Article IV of the treaty stipulates member states' obligation to help each other in case of external armed aggression as follows:

> "Each party recognizes that aggression by means of armed attack in the treaty area against any of the Parties or against any State or territory which the Parties by unanimous agreement may hereafter designate, would endanger its own peace and safety, and agrees that it will in that event act to meet the common danger in accordance with its constitutional processes…"[222]

First on the assurance front, the US leadership's threat assessment fell short of the existential threat threshold. That is, Washington did not think that the severity of an external threat posed to Southeast Asian countries was very serious. Apparently, Communist China was the main source of the external threat to the regional clients.[223] The quick victory of the Chinese

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[219] "Southeast Asia Treaty Organization (SEATO), 1954," Office of the Historian, Foreign Service Institute United States Department of State, https://history.state.gov/milestones/1953-1960/seato.
[220] Ibid.
[221] Ibid.
[222] Alliance Treaty Obligations and Provisions (ATOP) Coding Sheet, "ATOP ID: 3260," no. 18.
[223] Ooi Keat Gin, ed., *Southeast Asia: A Historical Encyclopedia From Ankor Wat to East Timor*, ABC-CLIO (Santa Barbara, CA, 2004), 338.

Communist Party (CCP) in China's civil war (1945–1949) highlighted the threat posed by Chinese communists to fledgling Southeast Asian countries. "As a partner of the Soviet Union in the Cold War against the capitalist West in the 1950s, the Beijing regime put strong pressures on its southern neighbors to accept communism."[224]

Nonetheless, the US threat perception was not high enough to provide a nuclear guarantee to the Southeast Asian clients. China was not assessed to harbor greedy ambitions for complete political domination of Southeast Asian clients through overt armed aggression.[225] Rather, Washington viewed that Chinese communist aggression was mainly aimed at degrading the Southeast Asian countries' state authority over specific areas of the clients' territories. Discussing the issue of the protection of Southeast Asian countries about 3 months prior to the SEATO's formation, Secretary of State Dulles wrote in a memorandum to President Eisenhower that "It is, in my opinion, more likely that a Chinese offensive against Southeast Asia would take the form of subversive and indirect aggression rather than open direct aggression."[226] Dulles reiterated a similar perspective regarding the purpose of the SEATO about a month before its establishment. Admitting the point that deterring Communist China's outright invasion should be one the Pact's objectives, he stressed that:

> Primary problem, however, is to frustrate Communist subversion and infiltration in area. Deterrent provided by pact against armed aggression will be of value in instilling confidence [on] this score into gov[ernmen]ts of area and will thus also operate [to] increase their capacities [to] deal with subversion and infiltration.[227]

Moreover, a draft paper on the SEATO prepared by a State-Defense-CIA working group pointed out that "It is generally agreed that at this time the major communist threat in Southeast

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[224] Ibid.

[225] Although the potential scenario of communist China's overt aggression against Southeast Asia was investigated by the US JCS, it was abstractly discussed as a contingent plan for the worst-case scenario. For example, see, "Memorandum by the Acting Secretary of Defense (Anderson) to the Secretary of State," 21 May 1954, *FRUS*, *1952-1954*, vol. 12, pt. 1, *East Asia and the Pacific* (Washington, DC: GPO, 1984), Document 206.

[226] "Memorandum of Conversation, by Robert Cutler, Special Assistant to the President for National Security Affairs," May 28, 1954, *FRUS*, *1952-1954*, vol. 12, pt. 1, Document 209.

[227] "The Secretary of State to the Embassy in the United Kingdom," July 28, 1954, *FRUS*, vol. 12, pt. 1 Doc. 275.

Asia is more one of internal subversion than of overt military invasion."[228] Also, a State Department's analysis estimated that "The primary external threat to Thailand's security is the subversive and aggressive forces of Communist China..."[229] To sum up, Washington perceived that the Communist China menace posed to the Philippines and Thailand was a non-existential threat driven by the objective of governmental degradation.

Next, on the deterrent front, the US assessment of the clients' self-reliant deterrence capabilities against infiltration and subversion activities by Chinese units was negative. For sure, it was viewed that mainland China's location, geographically separated from the Southeast Asian clients, was not in favor of infiltrating military units and carrying out effective subversive campaigns against their territories. It was estimated, however, that the clients' very poor military forces would prevent them from promptly quelling communist infiltration and subversive campaigns in border areas (e.g., Southeastern and Northern provinces of Thailand) or in certain areas where many Chinese communist dissidents lived (e.g., central Luzon of the Philippine Archipelago).[230]

This US negative assessment on the deterrence front corresponds to the combat force ratio of this case. It is estimated that as of 1954 (the year of the SEATO's formation), Chinese CINC score discounted by the intercity distance was three times higher than the combined CINC scores of frontline Southeast Asian clients (3.51:1), including the Philippines and Thailand. The local-combat-force ratio remained higher than 3 to 1 until the year of the SEATO dissolution in 1977 (3.30:1).[231]

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[228] *FRUS, 1952-1954*, vol. 12, pt. 1 "Memorandum by the Counselor of the Department of State (MacArthur) to the Secretary of State," Document 409.
[229] "Staff Study Prepared by an Interdepartmental Working Group for the Operations Coordinating Board," January 4, 1956, *FRUS, 1955-1957, Southeast Asia*, vol. 22, Doc. 484.
[230] For example, see, *FRUS, 1952-1954*, *East Asia and the Pacific*, vol. 12, pt. 2, Document 391; Document 395; *FRUS*, *1950*, *East Asia and the Pacific*, vol. 6, Document 814; Document 837.
[231] The reference cities for calculating the intercity distance in the SEATO case are Beijing and Manila—the capital city closest to Beijing among capitals of other SEATO member states (Manila is located 1,775 miles away from Beijing (Bangkok is located farther away (2,051 miles) from Beijing)).

In summary, Washington evaluated that Southeast Asian clients faced an "non-existential" threat and that the likelihood of the enemy (communist China)'s quick victory in the event of covert aggression would be "high." In this situation, my theory predicts the US would adopt a "forward conventional deployment" strategy. Indeed, Washington selected the predicted strategy to serve the SEATO.

Regarding the force configuration, the US deployed sizeable troops in forward areas of Southeast Asian clients. As shown in the Philippine case of this article, the US presented a substantial forward military presence in the Archipelago. Furthermore, from 1961 to 1975, the US put conventional forces (a couple of commando squadrons and close combat support forces) on Thailand's forward areas. Most of them were stationed near border areas where Chinese communist infiltration and subversion transpired. More specifically, American forward-deployed forces were located in Udon Thani in northeastern Thailand (about 350 miles north of Bangkok, near Laos), Ubon Ratchathani, in Ubon Ratchathani Province (about 300 miles northeast of Bangkok, bordering Laos and Cambodia), in Nakhon Phanom Province (about 460 miles northeast of Bangkok bordering Laos), in Nakhon Sawan Province (about 144 miles north of Bangkok), and in Nakhon Ratchasima Province (about 160 miles northeast of Bangkok).[232]

The SEATO was formally disintegrated on June 30, 1977. The ATOP codebook explains the dissolution of the organization as follows:

> "Pakistan quits in protest of lack of SEATO support versus India. France stops contribution due to its changed status in S[outh]E[ast] Asia. Recognizing the changes in S[outh]E[ast] Asia with the end of the Vietnam War, improved relations with China etc., the parties agree to disband the organization in 1977."[233]

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[232] Charles A. Ravenstein, *Air Force Combat Wings: Lineage and Honors Histories 1947–1977* (Washington, DC: Office of Air Force History, United States Air Force, 1984); Jeffrey D. Glasser, *The Secret Vietnam War: The United States Air Force in Thailand* (Jefferson, NC: McFarland & Company, 1995).
[233] ATOP Dataset coding sheet, "ATOP ID: 3260."

In conclusion, the SEATO case supports my theory.

US Extended Deterrence to Spain (1963-1970 (O) / 1976-1981(O))

It is worthwhile to briefly examine the background history of the US extended deterrence to Spain before exploring the case from assurance and deterrence aspects. As I will show below, this case bears out my theory.

From the beginning, the US wished to protect Spain along with European-NATO states under the same security umbrella—NATO.[234] Spain also hinted at its wish to participate in NATO when that organization was established.[235] The US and Spain, however, had to wait for more than three decades to attain their wishes because European-NATO states opposed Madrid's accession to NATO. They thought the Franco regime's Spanish dictatorship was contrary to NATO's liberal and democratic principles, thus claiming the need for a democratic transition in Spain first.[236] Despite the fact that Spain shared a common enemy with NATO-Europe—the Soviet Union and its Satellites—NATO-European clients strongly objected to Madrid's membership. Faced with the opposition, for some years the US could not but provide a separate security guarantee to Spain outside the NATO alliance. Eventually, Washington's and Madrid's hope bore fruit after long wait. Francisco Franco's death in 1975 paved the way for Spain's late entry into NATO. After Franco's nearly three-decade-long dictatorship, democracy took roots in Spain. In response, European-NATO allies authorized Spain's accession to NATO and it officially became a member state in 1982.[237] Consequently, the US's distinct security umbrella over Spain was integrated into the multilateral alliance.

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[234] *FRUS*, 1950, *Western Europe*, Vol. 3 (Washington, DC: GPO, 1977), Document 679, Document 683, Document 687; *FRUS*, 1952-1954, *Western Europe and Canada*, Vol. 6, Pt. 2 (Washington, DC: GPO, 1986), Document 918.
[235] *FRUS*, 1949, *Western Europe*, Vol. 4 (Washington, DC: GPO, 1974), Document 408.
[236] For example, see, *FRUS*, 1949, Vol. 4, Document 416; *FRUS*, 1950, Vol. 3, Document 682, Document 687.
[237] Seth S. King, "Spain Enters NATO as First Country to Join Since 1955," *The New York Times*, May 31, 1982.

The ATOP dataset also regards the US-Spain alliance as a distinct treaty separate from NATO. The bilateral pact was signed on September 26, 1963. The ATOP dataset explains that this 1963 alliance pact is "an extension of the 26 Sept. 1953 defense agreement [between the US and Spain]. Only in 1963 does the pact become a codable alliance by ATOP rules."[238] Following the ATOP's coding, I regard the 1963 treaty as the starting point of the formal US security commitment to Spain.

It is important to note that the 1963 pact (ATOP ID: 3480) was terminated and replaced by a new treaty in 1970 (ATOP ID: 3635) that did not contain the US defense commitment. The ATOP dataset classifies the 1970 agreement as a "consultation pact" only. Subsequently, the 1970 agreement was soon replaced by a new agreement in 1976 (ATOP ID: 3750), that restored the US security commitment to Spain. The ATOP dataset classifies the 1976 agreement as a "defense pact" as well as a consultation pact. The 1976 agreement was terminated in December 1981 when Spain became an official NATO member. Therefore, this study posits that the Spain case is composed of two distinct periods (Period I: 1963-1970 & Period II: 1976-1981), excluding the years of the 1970 consultation pact (1970-1976) from the analysis. Recall that this study is interested only in security arrangements that contain a nuclear patron's security commitment to a client (clients). Therefore, if a given alliance treaty is not classified as a defense pact by the ATOP dataset, I exclude it from the universe of cases of this study.[239]

It is worth noting that US assessments of Spain's security environment during the first

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[238] "ATOP Coding Sheet, ATOP ID: 3480." Since the 1953 pact takes the form of a basing agreement, the ATOP dataset excludes the period prior to 1963. Regarding the scope of the ATOP dataset, the ATOP codebook states that "we are concerned with military alliances, specifically those that promise cooperation in addressing military threats. The promised cooperation must extend beyond simply providing supplies, leasing territory, or sharing information; there must be a commitment for cooperative action in the event of conflict. Thus, arms sales agreements, military aid agreements, basing agreements, border delimitation agreements, intelligence sharing agreements, etc., do not meet the definition of alliances unless they include additional obligations requiring cooperation in the event of military conflict." Brett Ashley Leeds, "ATOP Codebook," Version 5.0, December 3, 2020, 6-7. Available at http://www.atopdata.org/uploads/6/9/1/3/69134503/atopcodebookv5.pdf.

[239] The ATOP dataset lists all types of alliance that apply to a given case. If a given case is classified as a defense pact *and* other types (neutrality pact, nonaggression pact, consultation pact, offense pact), however, I include the case in the universe of cases of this study.

period (1963-1970) largely originated from those made in 1953 when the initial defense agreement was signed. As noted above, the ATOP dataset states that the 1963 bilateral pact was an "extension" of the 1953 defense agreement.[240] Therefore, although the 1953 agreement is not included in the ATOP dataset, it would be worthwhile to investigate how the US assessed Spain's security conditions in the early to mid-1950s to surmise them when the 1963 pact was signed.

First, on the assurance front, the US judged in the early 1950s that Spain faced a highly acute threat environment. Simply put, Spain was assessed to face an existential threat from the Soviet Union. In a meeting with the US Ambassador to Spain, Spanish Foreign Minister Señor Alberto Martin Artajo pointed out that "a war precipitated by Soviet aggression against the West would be a different thing, an ideological affair threatening the *very existence of our civilization* [emphasis added]."[241] A few months later, Franco said to the US Ambassador to Spain that the US had become a "real defender of liberty and freedom" of his country.[242] He also stressed that without US devotion to his country's security, "there would be no hope" for Spain to "escape from Communist menace."[243] He went on to say that the Soviets "had only one objective, whether directed by Lenin, Stalin or Malenkov; that objective was to … impos[e] their will and domination upon" Spain and other Western European states "through combination of locally established and directed Communist groups…."[244] Then, Franco revealed a grave fear of the Soviet aggressive invasion of his country, saying that "Spanish people, therefore, feeling that they were marked out as [a] country against which Soviets had particular hatred, believed they would undoubtedly become one of the first targets and therefore

[240] Recall that the ATOP dataset does not regard the 1953 defense agreement as an alliance treaty thus excludes it from the dataset in the sense that it took the form of a basing agreement only. See, "ATOP Coding Sheet, "ATOP ID: 3480."
[241] *FRUS*, 1952-1954, *Western Europe and Canada*, Vol. 6, Pt. 2 (Washington, DC: GPO, 1986), Document 847.
[242] Ibid., Document 890.
[243] Ibid.
[244] Ibid.

were in great danger."[245] The US leadership concurred with his heightened threat perception. The US Ambassador to Spain envisaged that should a Soviet invasion of Spain occur, its objective would be to fully eliminate the anti-communist Spanish regime. The Ambassador once stated to the Spanish Foreign Minister that:

> If war with the U.S.S.R. should come, Spain, …, would not be able to escape Soviet aggressive action. In this connection, Spain's determined anti-Communist position would be at least as suitable a pretext for eventual attack on Spain in the event of general hostilities…[246]

The Spanish leadership reiterated apprehensions over their severe threat environment in the early 1960s.[247] It is, therefore, reasonable to conjecture that Washington viewed that Spain was exposed to an existential threat during the first period.

On the deterrence front, the US evaluation was also pessimistic. The US leaders basically viewed that the quick Soviet overrun of Spain would be highly likely in the event of its aggression against Western Europe. For sure, Spain was geographically far away from the Soviet Union. Moreover, the Pyrenees Mountains that form the divide between the Iberian Peninsula and France would function as a great bulwark against an external invasion from the East. Nonetheless, both American and Spanish leaders' perspectives were very pessimistic on this matter. The US leadership viewed that the superior mobile Soviet forces and robust power projection capability over the distant client—Spain—would allow it to overcome geographical barriers. To make matters worse, it was assessed that Spain's deficient military assets and poor road and rail infrastructure would make it impossible for the client to effectively exploit the Pyrenees barrier against Soviet aggression. A US intelligence report stated that:

> The majority of Spanish weapons are obsolete or obsolescent…The Army is deficient in heavy artillery, effective antitank and antiaircraft weapons. Severe shortages also exist in most types of signal and engineer equipment as well as automotive transport,

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[245] Ibid.
[246] Ibid., Document 871.
[247] *FRUS*, 1958-1960, *Western Europe*, Vol. 7, Pt. 2 (Washington, DC: GPO, 1993), Document 318.

> tanks, and other combat vehicles. The lack of ammunition in stock and production potential, however, is much more serious than the weapons situation. It is estimated that the ammunition supply for full mobilization of 40 divisions for various categories of weapons is adequate for from 3 to 12 days of combat. … The combat value of the Spanish Air Force is practically nil against a major foe. Any improvement in efficiency would necessitate extensive foreign aid in every category, and would entail complete rebuilding of the Air Force.[248]
>
> The railroads of Spain are highly vulnerable to air attack and sabotage because of the many tunnels and bridges and the lack of alternative routes. Defense of the Pyrenees would be a serious problem from the point of view of the present railroad capabilities. In 1947 the withdrawal of 60,000 Spanish troops from the Pyrenees required for 3 months' time and to a large extent disrupted normal railway traffic. … The highways of Spain are totally inadequate for modern military traffic. The Spanish highway system radiates from Madrid, and good connecting roads in outlying areas are few. The deficiency is particularly important in the Pyrenees, where the Spanish roads are poor.[249]

The Spanish government took the same perspective. A 1952 Spanish analysis shared with the US pointed out that:

> We cannot discard possibility that before mobilization of part of NATO divisions begin, armored forces of aggressor c[ou]ld initiate large-scale operations, nor possibility of enemy airborne forces attempting to create centers of harassment and resistance in distant zones, attacks on Pyrenees barrier and in interior of Peninsula, c[ou]ld be launched in very short time.[250]

In short, the US viewed that the Warsaw Pact forces' quick overrunning of the Iberian Peninsula would be highly likely should they invade the client.

The local-combat-ratio of the Pact-Spain dyad reaffirms the pessimistic US assessment of Spain's self-reliant deterrence capability. The estimated Pact's military power (CINC score) adjusted to the intercity distance is approximately 11 times greater than Spain as of 1963 (11.10:1).

To sum up, the first period is characterized by the combination of an "existential" threat

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[248] NIE-34, "Spain's Potentialities in Western Defense," 16 July 1951. Document CIA-RDP79R01012A001000010043-1, CIAERR, 14-15

[249] Ibid., 21-22.

[250] *FRUS*, 1952-1954, Vol. 6, Pt. 2, Document 852.

and a "high" likelihood. In this situation, my theory predicts that a nuclear patron would adopt a "forward nuclear deployment" strategy.[251]

Moving to the second period (1976-1981), on the assurance front, the US heightened threat perception was significantly alleviated. In other words, Washington viewed that Madrid no longer confronted an existential threat from Moscow. Instead, it considered that the Soviet Union now posed a limited threat to the client. The perception change was closely related to a new judgment that a potential Soviet invasion of Spain would be driven by limited territorial ambitions for the capture of Spanish enclaves in North Africa—Spanish enclaves of *Ceuta* and *Melilla* that sit on the northern shores of Morocco's Mediterranean coast—and the Canary Islands (also known as Canaraies)—a Spanish Archipelago off the coast of Morocco and West Sahara (then-Spanish Sahara) in the Eastern Atlantic Ocean.

Simply put, the US concluded that a Soviet threat to the client was more likely to originate from the South rather than from the East. This shift originated from Spain's reinterpretation of the Soviet menace. As early as the late 1960s, Spain's attention was gradually shifting from the Soviet threat that emanated from the East to the South. In a conversation with US representatives, Franco recounted that "he was primarily concerned with the Mediterranean area."[252] He stressed that "the Mediterranean was of great importance to all of Europe and that Spain looked with justified alarm at the continued presence of the USSR in the Mediterranean."[253] To clarify, Franco's main security concern was a growing Soviet military presence around the southern shore of the Mediterranean and a rising Soviet connection with North African countries (e.g., Algeria, Egypt, and Morocco). This changing situation made Madrid worried that its enclaves in the region might be under attack from Soviet expeditionary

[251] I will investigate the actual outcome (actual extended deterrent posture) during the first period below.
[252] *FRUS*, 1964-1968, *Western Europe*, Vol. 12, Document 221.
[253] Ibid.

forces or the Soviet-backed neighboring African states. In addition, in a summit meeting between the US and Spain in 1970, Franco called President Richard Nixon's attention to the Soviet territorial ambition over the Canaries in a summit meeting in 1970. He warned that once the Soviet Union occupied the Canary Islands, it "would then have a base on the Atlantic from which they could threaten both the Atlantic and Mediterranean maritime trade routes and extend their influence further into the area."[254]

Echoing the client's new threat perception, the 1984 US intelligence report stated that a major current external threat to Spain originated "from the South rather than from Warsaw Pact moves into Central Europe."[255] The report also stated that "the Spanish, and the military in particular, are troubled by the growing Soviet naval presence in Western Mediterranean and the eastern Atlantic and possible Soviet use of certain North African states as surrogates…."[256] Another US National Intelligence Council's paper of 1983 also mentioned that "… most within [the Spanish] government and party circles are aware that the growth of the Soviet threat to Africa, the increasing Soviet presence in the Mediterranean, and the general worsening of East-West relations…."[257] The paper then singled out "sovereignty over the North African enclaves of Ceuta and Melilla" as the issue of "paramount importance to Spain."[258]

From the US point of view, therefore, the Spanish leadership's major concern was a Soviet direct or Soviet-backed North African invasion against their overseas territories (the Canaries and the North African enclaves of Ceuta and Melilla).[259] In a related point, when Madrid

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[254] *FRUS*, 1969-1976, *Western Europe; NATO, 1969-1972,* Vol. 41 (Washington, DC: GPO, 2012), Document 299.
[255] CIA, NIE-27.1/20-84, "Spain, NATO, and Western Europe," 12 March 1984, Document CIA-RDP87T00126R000801080001-2, CIAERR, 10.
[256] Ibid.
[257] National Intelligence Council, NIC #8751-83, "Spain and NATO," 5 December 1983, Document CIA-RDP87R00529R000200130012-6, CIAERR.
[258] Ibid.
[259] Ibid. Also see, 1978MADRID02064, "Telegram from the US Embassy in Madrid to the Department of State," 27 February, 1978, AAD; CIA, EUR 82-10084, "NATO's 16th Nation: Spain's Prospective Role," September 1982, Document CIA-RDP83-00857R000100100003-8, CIAERR, 10; CIA, "Spain, NATO, and Western Europe," March 1984, CIAERR, 10; Edward Schumacher, "Spanish Eyes Turn to a Second Pillar of Hercules,"

officially joined the NATO in 1982, Spain's main focus was how its NATO membership would protect the overseas territories.[260]

Simply put, in contrast to the previous years, the US viewed that Spain confronted a non-existential and limited threat in the early 1970s. That is, Washington came to conclude that the Soviet Union might attack the client in pursuit of ownership of the Spanish overseas territories, leaving its sovereignty intact.

Next, on the deterrence front, Washington assessed that Spain would be unable to repel and ward off Soviet incursions into the overseas territories, thus allowing the enemy's quick annexation of them. This pessimistic judgment came from the client's obsolete military equipment, and therefore, poor speed of reaction and power projection capabilities over the regions outside the Iberian Peninsula.

More specifically, a 1974 US report assessed that the Spanish army units in North Africa (Ceuta: 8,800 troops and Melilla: 7,200 troops) would be capable of defending their distant territories against incursions by *minor powers only* like Morocco, but not by *great powers* like the Soviet Union.[261] The report also estimated:

> The [Spanish] army's overall effectiveness has increased under the influence of the MAP [US Military Assistance Program] but its capability to perform its mission is still limited by obsolescence of weapons lack of mobility; a weak logistic support system; shortages of communications equipment air defense weapons, tanks, and heavy artillery; ….[262]

Furthermore, Spain's obsolete anti-air and early-warning defense system, fledgling airlift and

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The New York Times, February 18, 1985; CIA, SNIE 27. 1-85, "Spain and the Western Security System," March 1985, Document CIA-RDP87T00573R000400440008-4, CIAERR, 7; CIA "Spain: Spanish Goals and Strategy in the Bilateral Security Talks," 13 August 1986, Document CIA-RDP88G01117R000501450002-4, CIAERR, 7.

[260] CIA, "NATO's 16th Nation," 10. As a CIA analysis put it, for Spain, "NATO's origin as a defensive response to the Soviet takeover of Eastern Europe was a distant memory." Spanish leaders felt "little direct danger" from the Soviet Union. "A more immediate security concern" was "*the threat from the south* [emphasis in original]." CIA, "Spain and the Western Security System," 7.

[261] CIA, "Spain: Armed Forces," June 1974, Document CIA-RDP01-00707R000200090014-1, CIAERR, 7, 12.

[262] Ibid., 7.

amphibious warfare capabilities, and the lack of modern and combat-ready air interception aircraft were mentioned as severe weak points.[263] Especially, the report stated that Spain's "airlift resources are inadequate to support a large emergency troop deployment" to its overseas territories including "the Canary Islands."[264]

In short, The US viewpoint on the deterrence front was as pessimistic in the second period as it was in the first period. This perspective is further supported by the Soviet-Spanish local-combat-ratio in 1976. The estimated ratio is 5.07:1, implying that the Soviet Union had a sufficient capability to quickly capture the Spanish overseas territories.[265]

The second period is characterized by the combination of "non-existential" threat and "high" likelihood of the enemy's quick victory. Taken all together, the US assessment on the assurance front was shifted from "existential" to "non-existential" threat and the US assessment on the deterrence front remained pessimistic—the constant "high" likelihood of a quick Soviet victory. For my theory to be correct, the US extended deterrence strategy should have been shifted from "forward *nuclear* deployment" to "forward *conventional* deployment" over time. Indeed, the US behaved in accordance with my theory's prediction.

During the first period, the US adopted a forward nuclear deployment strategy. The US reportedly started to deploy tactical nuclear weapons to Spain in 1958. At its peak, about 200 to 250 forward-deployed nuclear weapons were there.[266] Fuhrmann and Sechser's study

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[263] Ibid., 18-28.
[264] Ibid., 27.
[265] Please note that CINC scores of Satellite states (Bulgaria, Czechoslovakia, East Germany, Hungary, Poland, and Romania) are not considered when calculating the local-combat-force-ratio for the second period in the sense that a main target of extended deterrence was the *Soviet independent incursion* into the client's overseas territories, rather than the entire Warsaw Pact's invasion of the client's homeland from the east. Predictably, even if Satellites' CINC scores are also considered, the ratio remains higher than 3:1 (9.39:1). Also note that the reference cities for the first period are "East Berlin" and "Madrid" (intercity distance: 1,162 miles). The enemy side's reference city, however, is shifted from "East Berlin" to "Minsk," since Satellites (including East Germany) are not considered in the calculation of the ratio for the second period (intercity distance: 1,720 miles).
[266] Robert S. Norris, William M. Arkin, and William Burr, "Where They Were," *The Bulletin of Atomic Scientists* (November/December 1999), 32.

succinctly describes the US forward-deployed nuclear weapons on Spanish soil as follows:

> Spain housed U.S. nuclear weapons–including gravity bombs, depth bombs, Falcon air-to-air missiles, Talos surface-to-air missiles, and depth bombs – beginning in 1958. All nuclear forces were removed in 1976, before Spain joined NATO.[267]

On top of that, the US deployed substantial conventional forces—approximately 13,400 troops as of 1963 (the first year of the first period)—in Spain.[268] More specifically, a large portion of American forces-in-being were deployed in forward areas—further east of Madrid—including Eastern Madrid (Torrejón de Ardoz), Zaragosa, and Tarragona.[269] Their main tasks were to repel and delay the Soviet quick advances into the client's territory in case of war. In a document transmitted to the Spanish foreign minister, the US government stressed the imperativeness of American military forces and their facilities on Spanish soil as follows:

> … the presence of United States military personnel on these facilities, together with the intended provision by the United States, in collaboration with Spain, for the defense of these facilities, would provide a valuable net addition to Spanish defense capabilities while, at the same time, affording to Spain the opportunity of making an important contribution to the defense of Western Europe.[270]

When the US high threat perception was significantly relaxed later, the US decided to withdraw its nuclear umbrella from Spain. All US tactical nuclear weapons were withdrawn from the client's territory in 1976—the first year of the second period (1976-1981).[271] However, the US continued to retain large conventional forces in the client. As of 1976, about 9,100 American troops were still stationed in Spain.[272] In addition, a significant portion of the troops were positioned further south of Madrid, including Moron (Seville) and Rota.[273]

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[267] Fuhrmann and Sechser, "Appendices for "Signaling Alliance Commitments,"" 8.
[268] Kane, "Global U.S. Troop Deployment, 1950-2005."
[269] CIA, NIE 27.1-54, "Probable Developments in Spain," 12 June 1956, Document CIA-RDP79R01012A007300020001-0 CIAERR, 12.
[270] *FRUS*, 1952-1954, Vol. 6, Pt. 2, Document 871.
[271] Fuhrmann and Sechser, "Appendices for "Signaling Alliance Commitments,"" 8.
[272] Kane, "Global U.S. Troop Deployment, 1950-2005."
[273] *FRUS*, 1969-1976, Vol. 41, Document 290; CIA, "Spain, NATO, and Western Europe," March 1984, CIAERR, 16.

Admittedly, these US military bases in Southern Spain had been already established in the original places in the late 1950s. It is important to note that the gravity of the US military power in the client was moved from east of Madrid to south of Madrid in response to a growing territorial threat to Spain. An American intelligence report of 1986 stated that "[a]lthough the Spanish are worried primarily by the perceived threat from North Africa," the threat "could be minimized if a US reorientation to the south were presented as part of a general effort to improve anti-Soviet defenses on NATO's southern flank."[274]

In conclusion, over time, the US acted for Spain's protection in accordance with my theory, bearing out its validity.

US Extended Deterrence to Taiwan (1954-1974 (O)/1974-1979 (x))

The US and the Republic of China (Taiwan) signed the Mutual Defense Treaty on December 2, 1954 (ATOP ID: 3270).[275]Article V of the treaty codifies the US security commitment to Taiwan.

> "Each Party recognizes that an armed attack in the West Pacific Area directed against the territories of either of the Parties would be dangerous to its own peace and safety and declares that it would act to meet the common danger in accordance with its constitutional processes."[276]

On the assurance front, the People's Republic of China (PRC)'s bellicosity presents "an existential threat to Taiwan, a country that Chinese leaders have long vowed to take by force if they deem necessary."[277] Indeed, when the US and Taiwan discussed the creation of a mutual defense pact, the PRC's Minister of Foreign Affairs, Zhou Enlai said that it was imperative for the PRC to "liberate Taiwan and do away with the Chiang Kai-Shek traitor gang."[278] Then, he

[274] CIA "Spain: Spanish Goals and Strategy in the Bilateral Security Talks," 7.
[275] ATOP Coding Sheet, "ATOP ID: 3270."
[276] Ibid.
[277] Enoch Y. Wu, "Taiwan's Failure to Face the Threat from China," *The New York Times*, May 18, 2017.
[278] *Important Documents Concerning the Question of Taiwan* (Peking: Foreign Languages Press, 1955), p. 12,

warned:

> "If any foreign aggressors dare to prevent the Chinese people from liberating Taiwan, if they dare to infringe upon our sovereignty and violate our territorial integrity, if they dare to interfere in our internal affairs, they must take upon themselves all the grave consequences of such acts of aggression."[279]

Simply put, Beijing reiterated its aggressive intention to eliminate Taiwan should an opportunity occur. An American intelligence paper published in March 1955 evaluated PRC's objectives toward Taiwan as follows:

> "The Chinese Communist regime appears firmly committed to the seizure ("liberation" as they call it) of the offshore islands and Taiwan. It regards as the final destruction of the Chinese National Government as a symbol of resistance to the Chinese regime, and the elimination of Taiwan as a potential base of attack against the mainland. The Chinese Communists almost certainly regard the eventual attainment of these objectives as essential."[280]

Thus, Washington viewed that Taiwan was under an existential threat from the PRC. This heightened threat perception remained rarely unchanged at least by the late 1960s. For example, a 1961 intelligence report stated that "Peiping has no compunctions about openly using its military forces to extend its control…. It will continue its refusal to renounce the use of force for the seizure of Taiwan and the offshore islands …."[281] In 1969, the JCS projected that one of the PRC's foreign policy goals around 1970 would be the "acquisition of Taiwan," for which Beijing was "fully prepared to use overt military force."[282] Indeed, a high-ranking PRC official repeatedly remarked in a public appearance that "Taiwan [is] inalienable part of Chinese territory. Chinese people will strive to end to liberate Taiwan," threatening the "U.S. sooner or later would be forced withdrawn [sic] [from Taiwan]."[283] To sum up, the US threat perception

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cited in *Thomas E. Stopler, China, Taiwan, and the Offshore Islands: Together with an Implication for Outer Mongolia and Sino-Soviet Relations* (Armonk, NY: M. E. Sharpe, Inc, 1985), 35.

[279] *FRUS*, 1952-1954, *China and Japan*, Vol. 14, Pt. 1 (Washington, DC: GPO, 1985), Document 276.

[280] *FRUS*, 1955-1957, *China*, Vol. 2 (Washington, DC: GPO, 1986), Document 158.

[281] *FRUS*, 1961-1963, *Northeast Asia*, Vol. 22 (Washington, DC, GPO, 1996), Document 80.

[282] *FRUS*, 1964-1968, *National Security Policy*, Vol. 10 (Washington, DC: GPO, 2001), Document 12.

[283] *FRUS*, 1964-1968, *China*, Vol. 30 (Washington, DC: GPO, 1998), Document 91; Document 270. Also see, ibid., Document 180.

was very high because of Chinese communists' extremely malign intention—political absorption—towards the client.

On the deterrence front, the US revealed its pessimistic perspective with respect to Taiwan's self-reliant deterrence capabilities vis-à-vis China. From the beginning, Washington had no doubt about China's military capability to promptly seize Taiwan's outlying islands (e.g., Kinmen and Matsu islands located off China's coast)—Taiwan's offshore islands located just a few miles off China's coast.[284] However, Washington still had a question mark over China's power projection capability over Formosa (the main island of Taiwan). Particularly, Red China's deficient naval and air forces were the main obstacles to its successful military operations beyond its coastal areas.[285] Nevertheless, this was not to say that it was virtually impossible for the PRC to overrun Formosa. Rather, that meant that the enemy's attempt to eliminate Taiwan would be thwarted only if the US would quickly react and come to the client's aid. A 1952 US intelligence report highlighted this point as follows:

> Unless given outside assistance, the Chinese Nationalists are not capable of defending Taiwan against a large-scale Communist invasion attempt. Given timely and substantial US naval, air, and logistic support, the Chinese Nationalists would probably defeat Chinese Communist invasion forces.[286]

General William C. Chase, Chief of the Military Assistance Advisory Group, Formosa, revealed the same perspective in a conference held in 1952. When asked "whether a combined attack of amphibious and paratroop forces from Red China would be successful on Formosa," he said that "at the present time such a combined attack would stand a reasonable chance of success even with the presence of the United States Seventh Fleet."[287] He went on to assess that even if "a single operation, either by paratroop or by an amphibious landing, could be

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[284] *FRUS*, 1952-1954, Vol. 14, Pt. 1, Document 276.
[285] Ibid., Document 404.
[286] CIA, NIE-27/1, "Chinese Communist Capabilities and Intentions with respect to Taiwan through 1952," Document no. CIA-RDP79R01012A000700020019-1, CIAERR, 5-6.
[287] *FRUS*, 1952-1954, Vol. 14, Pt. 1, Document 8.

successfully withheld" by Taiwanese forces, they could "withstand a combined attack for about 7 to 9 days."[288]

Echoing these pessimistic estimations, another analysis of 1954 highlighted that:

> However, Chinese Nationalist military capabilities will remain greatly outweighed by those of Soviet-aided Communist China throughout the period of this estimate, even though substantial improvements take place in the Nationalist armed forces. Outside logistic, air, and naval support will continue to be required to defend Taiwan or the Pescadores [Penghu Islands] against Communist attack.[289]

To put it differently, the ability of the US forward military presence to rapidly fight for the client was deemed essential to make deterrence hold. This US judgment came from the fact that despite the foregoing weak points of Chinese troops, Taiwan's indigenous troops were too weak to exploit the enemy's deficiencies for their favors. Regarding Taiwan's air force, for instance, an American analysis evaluated that:

> Although the Nationalist Air Force is the strongest air force of any non-Communist East Asian country, it is far weaker than the Chinese Communist Air Force. Except for one group recently equipped with jet fighter-bombers, Nationalist aircraft are largely obsolescent.[290]

Thus, three months ahead of signing a formal defense pact with Taiwan, the US assessed Taiwan's overall military capabilities vis-à-vis Communist China as follows:

> Despite the gradual increases which have taken place in the combat capabilities of Nationalist ground, air, and naval forces over the past several years, Nationalist capabilities are far outweighed by those of Communist China. If the Nationalists chose to defend the offshore islands, they could probably make Communist assaults on these islands costly, but they probably could not, unassisted, hold them if the Chinese Communists were willing to commit the ground, air, and naval forces that they have available. Without outside logistical, naval, and air support, the Nationalists would almost certainly not be able to defend Taiwan [Formosa] against large-scale Communist air attacks or invasion.[291]

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[288] Ibid.
[289] CIA, NIE 43-54, "Probable Developments in Taiwan Through Mid-1956," 14 September 1954, Document no. CIA-RDP79R01012A004400010001-3, CIAERR, 12.
[290] CIA, NIE 43-54, "Probable Developments in Taiwan Through Mid-1956," 9.
[291] Ibid.

This perspective persisted throughout the first sub-period (1954-1974). As Beijing's power projection capability remarkably improved over time, Washington's already gloomy assessment on the deterrence factor became more pessimistic accordingly. Particularly, compared to the mid-1950s, China's naval and air forces and overall standoff capabilities marked a quantum leap, both in terms of quality and quantity, during the 1960s.[292] The local-combat-power ratio of the China-Taiwan dyad also confirms the validity of the foregoing evidence. China's adjusted CINC score is estimated to be 4.7 times greater than Taiwan's CINC score (4.71:1) as of 1954.

In short, the first sub-period of the Taiwan case is characterized by the combination of an "existential threat" and the "high" likelihood of the enemy's quick victory. In this setting, my theory predicts that a nuclear patron would adopt a "forward nuclear deployment" strategy. As predicted, the US adopted the strategy and it brought a US forward military presence both in nuclear and conventional dimensions.

In a nuclear dimension, the US began to deploy nuclear weapons on Taiwanese soil in January 1958, with very few Taiwanese leaders knowing, including Chiang Kai-shek.[293] A total of about 100 nuclear warheads were stockpiled in Taiwan. [294] The forward-deployed nuclear weapons would be used to repel invading Chinese communists in the event of war.[295]

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[292] For example, see, *FRUS*, 1961-1963, Vol. 22, Northeast Asia (Washington, DC: GPO, 1996), Document 141; *FRUS*, 1964-1968, Vol. 30, Document 126; *FRUS*, 1969-1976, Vol. 17, *China 1969-1972*, (Washington, DC: GPO, 2006), Document 23; Document 42. Document 83.

[293] "How Many and Where Were the Nukes?: What the U.S. Government No Longer Wants You to Know About Nuclear Weapons During the Cold War," National Security Archive Electronic Briefing Book No. 197, The National Security Archive, updated August 18, 2006, https://nsarchive2.gwu.edu/NSAEBB/NSAEBB197/index.htm. Regarding the US nukes in Taiwan, the National Security Archive reveals: "Ships visits there would have been probable and until 1974 the U.S. Air Force stored nuclear bombs there for use by U.S. fighter-bombers. In addition, during the late 1950s-early 1960s, nuclear-armed Matador missiles were deployed on the island." See, ibid. Also, see, "Appendices for "Signaling Alliance Commitments,"" 8-9.

[294] Norris, Arkin, and Burr, "Where They Were," 30, 34.

[295] Hans Kristensen, "Nukes in the Taiwan Crisis," *Federation of American Scientists*, May 13, 2018. Available

Under the robust nuclear umbrella, a consultation machinery called the "Blue Lion" committee was established in 1962. Through the committee, high-level representatives of the US and Taiwan regularly exchanged and coordinated their thoughts on a variety of issues concerning Taiwan's security.[296]

In a conventional dimension, the US stationed a sizeable number of conventional troops in the client's territory. At its peak, the estimated number of US troops in Taiwan was 19,044 (as of 1958).[297] Their military bases were located in front areas along Taiwan's western coastline facing the Taiwan Strait. Specifically, the United States Taiwan Defense Command (USTDC) was located in Taipei, the capital of Taiwan.[298] American military installations were located in Taipei (Sung Shan Air Base), Taichung City (Ching Chuan Kang Air Base), the Penghu islands, Tainan, and so on, which are along the western coast of Taiwan where Chinese invading troops were expected to land.[299] In summary, the first sub-period of the Taiwan case fits neatly with my theory.

Moving to the second sub-period, despite some improvements in threat environment, the US heightened threat perception was not alleviated significantly in the early to mid-1970s. To explicate, a rapprochement between the US and China that began in the early 1970s helped ease the high US threat perception, to some extent,. Amid the Sino-Soviet hostilities—which culminated in the outbreak of the Sino-Soviet War in 1969—US-China relations became closer.

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at https://fas.org/blogs/security/2008/05/nukes-in-the-taiwan-crisis/.

[296] *FRUS*, 1961-1963, Vol. 22, *Northeast Asia* (Washington, DC: GPO, 1996), Document 165; *FRUS*, 1964-1968, Vol. 30, Document 100; Steven M. Goldstein, "The United States and the Republic of China, 1949–1978: Suspicious Allies" (Stanford, CA.: Institute for International Studies, 2000), 29–30.

[297] Kane, "Global U.S. Troop Deployment, 1950-2005."

[298] Seth Robson, "Us Military History on Taiwan Rooted in Confrontation with China," *Stars and Stripes*, December 18, 2016.

[299] "Taipei Air Station, History of the Us Air Force in Taiwan- 1969," March 1, 2012, http://taipeiairstation.blogspot.com/2012/03/history-of-us-air-force-in-taiwan-1969.html; Seth Robson, "Former airmen who served on Taiwan to reunite 40 years after US forces departed," *Stars and Stripes*, April 3, 2019, https://www.stripes.com/news/former-airmen-who-served-on-taiwan-to-reunite-40-years-after-us-forces-departed-1.575435.

Kissinger's secret meeting with Zhou Enlai of 1971 paved the way for Nixon's historic visit to Beijing and summit meeting with Mao Zedong in February 1972, and the normalization of US-China relations in 1979. In the rapid developments, the new perspective that China would no longer pose an existential threat to Taiwan emerged in Washington. For example, about a week after Nixon's return from his visit to Beijing, Secretary of State William Rogers suggested to President Nixon that the US should "attempt to cool down Taiwan as an issue between the PRC and ourselves while encouraging an evolution of Taiwan's status either in the direction of reintegration with the China mainland by peaceful means or acceptance by the PRC of some form of separate status for Taiwan."[300] Secretary Rogers's suggestion for a new approach was based on the assumption that "Peking may become less dogmatic about gaining control over Taiwan in the long-term future, in effect not doing anything which would conflict with Peking's acceptance as *a fait accompli of Taiwan's existence as a separate entity* [emphasis added]."[301] From this perspective, the nature of a Chinese threat to Taiwan for years to come would be a non-existential one, such as a limited territorial attack on Taiwan's offshore islands, leaving its sovereignty or democratic political system intact.

However, it would be hasty to conclude that such a viewpoint was a mainstream position in Washington at the time. Rogers's opinion, for instance, was immediately refuted by the then-National Security Advisor, Henry Kissinger. Mentioning Rogers's viewpoint, Kissinger stated in a memorandum to President Nixon that he disagreed with Rogers's assumption that "Peking might accept Taiwan's existence as a separate entity" in light of "the depth of feeling among the PRC's leaders is very great that Taiwan must come under PRC control."[302] Indeed, in a series of high-level talks between the two sides, Chinese top-ranking officials did not budge an inch on the Taiwan question. They reiterated that the Taiwan issue was an internal affair of

[300] *FRUS*, 1969-1976, Vol. 17, Document 208.
[301] Ibid.
[302] Ibid.

China, and US troops must be completely withdrawn from the province.[303] China's stubborn position on the Taiwan question ended up being reflected in the joint statement following the US-China historic summit meeting—also known as Shanghai Communique. Reflecting China's position, the Shanghai Communique stipulated that "the liberation of Taiwan is China's internal affair in which no other country has the right to interfere."[304] The phrase suggested that China had no intention whatsoever to renunciate the idea of the liberation (political absorption) of Taiwan down the road.[305] With this skepticism in mind, NSC members called for caution against excessive optimism on the PRC's intention concerning the Taiwan question.[306]

All in all, it would be reasonable to conjecture that the preexisting US threat perception remained high throughout the 1970s, regardless of a growing reconciliation between the US and China at the time. Besides, as I clarified in the main text, when a patron is assessed to pursue multiple goals simultaneously towards a client, this study posits that a patron's threat perception is formed, adjusting to the *most* severe goal. Therefore, coding a Chinese threat to Taiwan as an existential threat during the second sub-period is in line with the rule I set up.

Next, measuring the deterrence factor is much more straightforward work than measuring the assurance factor. Through severe hostilities with the Soviet Union, China's overall military power grew stronger. Especially, while the PRC made considerable improvements in naval and air force branches by introducing advanced military weapons, Taiwan failed to acquire

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[303] The Taiwan question was dealt with as one of the most important agendas in US-China high-level bilateral talks held in the early 1970s. For example, see, *FRUS*, 1969-1976, Vol. 17, Document 139; Document 143; Document 198; Document 199.
[304] Ibid., Document 203.
[305] Relatedly, in 1976, the PRC Foreign Minister, Chiao Kuan-hua told then-Secretary of State Henry Kissinger that "[t]o normalize relations you must break diplomatic relations with Taiwan, withdraw all U.S. military forces from Taiwan, and abrogate your Defense Treaty. This has been our position all along. We have always said that how we liberate Taiwan is our internal affair. We have never agreed to peaceful means." That is, Minister Chiao suggested that his country would not rule out the possibility of political absorption of Taiwan by force if necessary. *FRUS*, 1969-1976, Vol. 18, Document 157. Also, see, ibid., Document 152.
[306] *FRUS*, 1969-1976, Vol. 18, Document 112.

modernized defensive capabilities against the PRC's air offensives and naval/amphibious attacks.[307] Thus, an American analysis of 1974 judged that "[t]he ROC's inability to withstand a determined PRC attack on its own has necessarily required military contingency plans under the Mutual Defense Treaty for active participation of U.S. air and naval forces in Taiwan's defense in the event of such an attack."[308] The local-combat-power ratio of the China-Taiwan dyad supports the foregoing measurement. The estimated ratio (7.17:1) implies that the PRC's quick victory against Taiwan was highly likely in the event of war.

To sum up, the second sub-period of the Taiwan case is characterized by the combination of an "existential" threat and the "high" likelihood of China's swift victory. In this setting, my theory predicts that the US would adhere to "forward nuclear deployment." Contrary to my theory's prediction, the US shifted to "forward conventional deployment" in 1974. First, the US pulled out all forward-deployed nuclear weapons from Taiwan in 1974.[309] Additionally, in the same year, Washington embarked on phasing out its forward-deployed conventional troops in Taiwan in attempt to normalize relations with China.[310] Until the very last minute of their departure from the client's territory, however, they continued to assume a leading role in protecting Taiwan at their original locations. For example, the US troops remained stationed in forward areas of Taiwan's territory, such as Taipei and Taichung City (Ching Chuan Kang Air Base).

Normalizing relations with Beijing on January 1, 1979, the Carter administration notified

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[307] Ibid., Document 90.
[308] Ibid.
[309] For more details on the US's complete nuclear withdrawal from Taiwan, see, U.S. Embassy Taipei cable 2278 to Department of State, 1 May 1974, "Conversation with CCK [Ching Chiang Ching-Kuo]," National Security Archive, https://nsarchive2.gwu.edu/news/19991020/03-01.htm; Joint Chiefs of Staff cable 251506Z to military commands in Asia and the Pacific, 25 May 1974, National Security Archive, https://nsarchive2.gwu.edu/news/19991020/02-01.htm.
[310] The number of US military personnel stationed in Taiwan changed over time as follows.

1973	1974	1975	1976	1977	1978	1979
8,267	4,619	2,584	2,090	995	753	0

Source: Kane, "Global U.S. Troop Deployment, 1950-2005"

Taipei of the US abrogation from the Mutual Defense Treaty with it. Consequently, the formal security ties between them officially came to an end on January 1, 1980.[311] This second-sub period, therefore, contradicts my theory's prediction of the US extended deterrence strategy: "forward nuclear deployment." Shortly after the US's termination of the formal treaty, the U.S. Congress passed the Taiwan Relations Act. It was designed to open up the possibility of providing security assistance to Taiwan and engaging in its security affairs.[312] It does not, however, stipulate the US's explicit security commitment to Taipei's defense, lacking binding force.[313]

In conclusion, the first sub-period of the Taiwan case supports my theory, but the second sub-period of that does not.

US Extended Deterrence to Thailand (1977-Present (O))

Despite the official dissolution of the SEATO on June 30, 1977, the US security commitment to Thailand continued. According to the ATOP dataset, the alliance treaty between the two countries entered "Phase II" on the same day of the SEATO's disintegration; it is still in effect today (ATOP ID: 3260, Phase II).[314] Simply put, the bilateral alliance pact succeeded the SEATO. Accordingly, the US-Thailand alliance treaty inherits the preexisting treaty of the SEATO without revision or rectification. The bilateral pact—just as the SEATO's treaty does—stipulates the US obligation to come to the aid of Thailand in the event of external aggression against it. Article IV of the bilateral pact states that:

> "1. Each party recognizes that aggression by means of armed attack in the treaty area against any of the Parties or against any State or territory which the Parties by unanimous agreement may hereafter designate, would endanger its own peace and

[311] *FRUS*, 1977–1980, Volume 13, *China* (Washington DC: GPO, 2013), Document 285.
[312] Stephen J. Yates, "The Taiwan Relations Act after 20 Years: Keys to Past and Future Success," in *Backgrounder Exceutive Summary*, ed. The Asian Studies Center at The Heritage Foundation (Washington, DC: The Heritage Foundation).
[313] Richard C. Bush, "Thoughts on the Taiwan Relations Act," *Brookings*, April 21, 2009.
[314] ATOP dataset, "ATOP ID: 3260, Phase 2."

> safety, and agrees that it will in that event act to meet the common danger in accordance with its constitutional processes…"[315]

It is worthwhile to note that a target of US extended deterrence to Thailand had already been shifted from China to Vietnam at the beginning of the US-Thailand bilateral alliance. As noted above, when the SEATO was founded in 1954, Communist China was originally regarded as the main threat to the SEATO client states, including Thailand. China was viewed as the main source of external threat to Thailand's security at least until the early 1970s. In 1971, for example, Thai Prime Minister Thanom Kittikachorn said to US Secretary of the Treasury John Connally that his "major concern" was China and the threat it posed to Thai security.[316] The US leadership's viewpoint was the same. In 1969, Kissinger assessed that "the long-term threat from China" was Thai leaders' "greatest concern."[317]

However, a series of dynamic developments in countries neighboring Thailand during the 1970s—South Vietnam's fall to North Vietnam, the Royal Lao Government's fall to the Communist Pathet Lao in Laos, and the Khmer Rouge regime's collapse due to the Vietnamese invasion of Democratic Kampuchea (Cambodia)—profoundly changed the political landscape in Indochina, in general, and terminated the decades-long hostilities between Thailand and the People's Republic of China (PRC), in particular. In July 1975, Bangkok and Beijing established formal diplomatic relations. The embryonic relationship was developed into a "de facto alliance in opposition to Vietnam's occupation of Cambodia."[318] Thailand and the PRC even colluded to counter an increasing threat from Vietnam while covertly cooperating to support the ousted Khmer Rouge—led by Pol Pot—against Hanoi and the Vietnam-backed Cambodia government.[319] For example, the US Ambassador to Thailand said in 1976 that "[t]he Thai saw

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[315] Ibid.
[316] *FRUS*, 1969-1976, *Southeast Asia, 1969-1972*, Vol. 20 (Washington, DC: GPO, 2006), Document 139.
[317] Ibid., Document 39.
[318] Ian Storey, "A Hiatus in the Sino-Thai "Special Relationship"" *China Brief* 6, no. 19 (2007). Available at https://jamestown.org/program/a-hiatus-in-the-sino-thai-special-relationship/.
[319] Barry Wain, "How a Secret Deal Saved Khmer Rouge—ASEAN and China Colluded to Thwart Hanoi, While

Vietnam as the real threat and China as a rather benevolent power even if some Thai also recognized that this benevolence stemmed from China's self-interest."[320] In summary, the US security umbrella over the client as of 1977 was mainly aimed at Vietnam.

On the assurance front, the US threat perception was "low." The possibility that Vietnam would invade Thailand was assessed to be for either 1) "occupation" of Thai-Kampuchean (Cambodian) border areas or 2) "degradation" of Bangkok's effective government control over the areas. First, it was expected that Vietnam could intrude into the client's territories bordering Cambodia under the pretext of "hot pursuit" of Pol Pot-led Khmer Rouge Cambodian rebels, who were based along the Cambodian side of the Thai-Cambodian border and sometimes crossed into Thailand's territory in order to avoid Vietnamese mop-up operations in Cambodia. Second, it was expected that Vietnam would launch subversion operations against Thailand via Cambodia and Laos to weaken the Thai's state authority over its border areas, such as Northeastern and Northern parts of Thailand.

First, regarding the first goal of territorial annexation, the Thai leadership revealed a fear of Vietnamese aggression targeted at the border area in order to root out the Khmer rebel forces. For example, in a letter sent from Thai Prime Minister Kriangsak Chamanan to President Jimmy Carter, the Thai leader wrote:

> … there are indications that Vietnam may launch an armed incursion into Thailand from across the Thai-Kampuchean border, although initially it may be limited in scope and come under the pretext of a "hot pursuit." It is noteworthy in this respect that both Phnom Penh and Hanoi have lately become much more vocal and strident in their accusations that Thailand has not been strictly neutral, and that we are still helping Pol Pot forces.[321]

Shortly thereafter, the Thai Prime Minister sent another letter to President Carter. He called for

U.S. Acquiesced," *The Wall Street Journal*, 27 June 1997.

[320] *FRUS*, 1969-1976, *Documents on East and Southeast Asia*, 1973–1976, Vol. E-12 (Washington, DC: GPO, 2010), Document 424.

[321] *FRUS*, 1977-1980, *Southeast Asia and the Pacific*, Vol. 22 (Washington, DC: GPO, 2017), Document 173.

US attention to a Vietnamese threat, admitting the relatively low possibility of the enemy's full-blown invasion driven by more aggressive ambitions.

> Regarding our national security, we are quite concerned that the Vietnamese may choose to undertake military actions against Thailand. The scope and nature of the military actions that the Vietnamese may opt to undertake are varied, and range from the more probable clashes with Thai military forces resisting Vietnamese "hot pursuit" of Khmer Rouge forces, to deliberate small scale border clashes instigated by the Vietnamese, to the less likely but still possible full scale invasion of Thailand by Vietnamese military forces.[322]

Second, regarding the second goal of governmental degradation, it was viewed that should a Vietnamese invasion occur, the aggressor would seek to weaken the client's state authority over targeted areas. To this end, Vietnam was expected to infiltrate paramilitary troops or dissident communist minorities in Thailand's border areas.[323] When discussing these matters, the Thai Foreign Minister Uppadit Pachariyangkun stated in a conversation with Secretary of State Cyrus Vance that a potential Vietnamese invasion would "serve a two-fold purpose, namely: getting rid of the undesirable elements and at the same time creating a problem of severe disruptive effects on our society."[324] Similarly, in a meeting with Zbigniew Brzezinski, Assistant to the President for National Security Affairs, Thai Foreign Minister Sitthi Savetsila remarked that he expected only "some shallow penetration into Thailand territory."[325]

Based on such a Thai leader's perspective, the US Ambassador to Thailand judged and reported to Washington in the 1980s that "[a]s we see it so far, [a] Vietnamese attack [against Thailand] has limited objectives... PAVN [People's Army of Vietnam] is operating under self-imposed limitations and [a] serious SRV [Socialist Republic of Vietnam] threat to Thai security has not yet been demonstrated."[326] When a crisis flared-up between Thailand and Vietnam

[322] Ibid., Document 174.
[323] Ibid., Document 176.
[324] Ibid.
[325] Ibid., Document 192.
[326] Ibid., Document 187.

along the Thai-Kampuchean border, despite the escalation of the crisis, in a telegram sent to Washington, Ambassador Abramowitz evaluated Hanoi's intention behind its potential invasion of Thailand as follows:

> It is also becoming apparent that DK [Democratic Kampuchea—led by Pol Pot] concentrations, including several on the Thai side of the border, will be the principal targets of expected surges in PAVN [People's Army of Vietnam] operations. While the SRV [Soviet Republic of Vietnam] is keeping an increasingly close watch on deployments of Thai forces as well, there are no indications that Thai forces or territory as such are being targeted [sic] for attack [sic] available intelligence indicates that Vietnamese intentions toward Thailand continue to be characterized by restraint and caution….[327]

To summarize, Washington predicted that should a Vietnamese invasion occur, the adversary would pursue limited aims short of the client's existence and survival. In short, the US appraised that the Vietnam threat posed to Thailand's security was not a grave one in the late 1970s.

Next, on the deterrence front, the US estimated that Vietnam's swift achievement of perceived goals—either territorial annexation or governmental degradation—would be unlikely. Although Bangkok and Washington viewed the former's own self-reliant deterrence capabilities against the enemy with some concern, both viewed the current situation with cautious optimism. In a 1979 letter to President Carter, Thai Prime Minister Kriangsak wrote:

> I consider it a matter of urgency that Thailand undertake all prudent measures to deter Vietnamese military aggression, and should that fail to defend successfully against an invasion. Our nation is, however, limited in its ability to provide for its military equipment needs, and must therefore of necessity turn to the industrialized nations for those critical military items that are essential for defense in this era of modern warfare.[328]

A few months later, however, while stressing the rationale of additional US military assistance in a conversation with high-ranking American officials, Thai Foreign Minister Sitthi recognized that his country's troops would be able to deal with invading Vietnam troops.

As for Thai/Kampuchea border situation, Thai believe that at present Vietnam has no

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[327] 1979BANGKO52146, Telegram from American Embassy to Secretary of State, AAD.
[328] *FRUS*, 1977-1980, Vol. 22, Document 174.

> capability to invade Thailand…. Thailand is confident in her ability to defend herself, but assistance from the U.S. was much needed. Sitthi did not rule out possibility of some fighting along the border but said that it would not be on large scale.[329]

Indeed, although Vietnamese military capabilities were robust enough to repel external aggression, they were still inadequate to conduct effective combat operations in a distant place. For sure, a rough comparison between Thailand and a unified Vietnam in terms of the total number of military personnel suggests that Vietnam possessed a great numeric superiority over Thailand when the US-Thailand bilateral pact was established (1977). (See Table A-9 below).

	1975	1977	1979	1981	1983	1985
Thailand (a)	227,000	230,000	250,000	250,000	233,000	235,000
Vietnam (b)	643,000	615,000	650,000	1,000,000	1,029,000	1,027,000
(b) : (a)	2.8:1	2.7:1	2.6:1	4.0:1	4.4:1	4.4:1

Table A-9. Force comparison between Thailand and Vietnam (military personnel)
Source: Correlates of War Project, National Military Capabilities Dataset (Version 5.0)

However, Vietnam's numeric superiority over Thailand was not interpreted as solid evidence of the adversary's capability to quickly overrun the client for two reasons. First, a large portion of Vietnamese troops (about 60-70%) were tied down in their north regions bordering China to deter its (re)invasion. To explain briefly, after North Vietnam's victory in the Vietnam War, the close Sino-Vietnamese ties rapidly unraveled due to Vietnam's overthrow of the China-backed Pol Pot Cambodian regime; Hanoi's close ties with Moscow; and Vietnam's mistreatment of ethnic Chinese inhabiting Vietnam.[330] For example, in a conversation with a Thai counterpart of 1980, a high-ranking Chinese official stressed that his country's troops were "tying down 700,000 SRV [Socialist Republic of Vietnam] troops merely by massing own troops on SRV border."[331] Similarly, as of 1985, of all the Vietnamese troops (about 950,000), only the 190,000-210,000 troops stationed in Vietnam's puppet states (Cambodia and Laos)

[329] Ibid., Document 184.
[330] CIA, "China: Military Options against Vietnam," Document no. CIA-RDP84S00928R000300050006-0, CIAERR. The worsening relations finally brought about China's massive invasion of Vietnam in February 1979.
[331] *FRUS*, 1977-1980, vol. 22, Document 185.

were available for a sudden attack on Thailand while deploying about 600,000 troops (about 63.2% of Vietnam's total strength) along the Sino-Vietnamese border.[332] Washington assessed, therefore, that the Chinse factor would significantly weaken Vietnam's actual warfighting capability vis-à-vis Thailand.

Second, there was still a question mark on Vietnam's power projection capability over regions beyond its border. Although the enemy troops were powerful and capable enough to conduct successful defensive operations *within* their territories, it was still doubtful that the enemy could conduct effective offensive operations in a distant region. For example, an American intelligence report of 1985 judged that Vietnamese ground forces had "a limited projection capability and would have difficulty in sustaining a major invasion of an ASEAN state like Thailand."[333]

The local-combat-ratio in a Thai-Vietnamese dyad is in keeping with the measurement of the deterrence factor above. More specifically, the ratio of Vietnam's adjusted CINC score to Thailand's CINC score marks "0.48:1," thus lower than 3:1. This implies that should war occur, Vietnam's quick victory against Thai border forces would be unlikely.

In sum, the values of the two independent variables are: the combination of 1) "non-existential" threat and 2) the "low" likelihood of the enemy's quick victory. In this setting, my theory predicts that the US would adopt a "conventional defense pact" strategy. Empirical evidence substantiates that the US indeed adopted the predicted strategy for Thailand's protection. Specifically, Washington made only verbal and textual security commitments without deploying a large-scale forward military presence in Thailand. Importantly, as examined in the SEATO case above, the US stationed substantial conventional forces in

[332] National Intelligence Council, "Memorandum from Carl W. Ford, Jr. [National Intelligence Officer for East Asia] to Dr. Gaston Sigur [Special Assistant to the President for Asian affairs]: Military Force Level in Indochina," 27 March 1985, Document CIA-RDP87S00734R000100050008-2, CIAERR.
[333] Ibid.

forward areas of Thailand. However, the US withdrew the most American troops from the client in 1976—a year ahead of the SEATO dissolution and the establishment of the US-Thai alliance (the Phase II of the bilateral pact). Between 1977 and 2005, therefore, approximately about 140 non-combat American military personnel, on average, were annually stationed on the client's land with no permanent military bases and facilities in its forward areas (further east of Bangkok).[334] In addition, there is no evidence that the US provided a nuclear guarantee to the client in a textual or verbal manner. It did not deploy nuclear forces on Thai soil either.[335]

In conclusion, the case of US extended deterrence to Thailand is consistent with my theory's prediction.

Soviet Extended Deterrence to China (1950-1960 (O)/1960-1964 (O))

The Soviet Union's security umbrella over the People's Republic of China began as the two communist countries signed *the Sino-Soviet Treaty of Friendship, Alliance and Mutual Assistance* on February 14, 1950 (ATOP ID: 3200). Article I of the treaty states that:

> "The two (parties) undertake to carry out jointly all necessary measures within their power to prevent a repetition of aggression and breach of the peace by Japan or any other State which might directly or indirectly join with Japan in acts of aggression. Should either of the (parties) be attacked by Japan or by States allied with Japan and thus find itself in a state of war, the other (party) shall immediately extend military and other assistance with all the means at its disposal."[336]

Although Japan was specified as a common enemy against which the mutual defense pact was formed, "any other state" that might attack the PRC was the US-Taiwan combined forces, which were virtually the main opponents to be deterred for Beijing's security. As a preeminent expert puts it, the treaty was mainly designed "to provide the young and weak PRC with a

[334] Kane, "Global U.S. Troop Deployment, 1950-2005."
[335] Fuhrmann and Sechser, "Appendices for "Signaling Alliance Commitments."
[336] The full text of the treaty is available at "The Treaty of Friendship, Alliance and Mutual Assistance Between the People's Republic of China and the Soviet Union, February 1950," Document no. CIA-RDP80R01443R000300050007-8. Available at https://www.cia.gov/library/readingroom/docs/CIA-RDP80R01443R000300050007-8.pdf.

strategic deterrent and military aid against US imperialism at three fronts: Guomindang-held Taiwan, divided Korea, and Vietnam."[337] In short, the purpose of the treaty was to protect Communist China from the two democratic enemies by providing Moscow's security guarantee to the fledgling communist East Asian country.

On the assurance front, when the treaty was signed, China was under an existential threat. Taiwan's President, Chiang Kai-Shek publicly vowed to retake mainland China, which had been lost in a bloody civil war in 1949. With detailed timelines for the invasion of continental China, Chiang continued to push ahead with plans to liberate the mainland from Communism.[338] Simultaneously, he pleaded with the US to provide support to his efforts.[339] Notably, the newly formed alliance between Washington and Taipei in 1954 greatly unnerved Beijing. China was gravely worried that the inclusion of Taiwan "in the alliance system would strengthen and encourage Chiang militarily and politically."[340] Accordingly, the signing of the alliance treaty could encourage his belligerency, "accelerating harassment of the mainland and the seizing of tiny offshore islands."[341]

More importantly, inclusion of Taiwan in the US-led alliance system would seem to "lock the US permanently in the Chinse Civil War," drawing military support from Washington to overthrow Mao's regime.[342] In this sense, it would be reasonable to conjecture that Beijing's dire threat perception was conveyed to Moscow, and the grave perspective was shared by the nuclear patron in the early 1950s. In short, Moscow's judgment of the type of threat variable

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[337] Lorenz M Luthi, *The Sino-Soviet Split: Cold War in the Communist World* (Princeton, NJ: Princeton University Press, 2008), p. 33.
[338] Victor D. Cha, "Powerplay: Origins of the U.S. Alliance System in Asia," *International Security* 34, no. 3 (2010): p. 169.
[339] *FRUS*, 1952-1954, Vol. 14, Part. 1, *China and Japan* (Washington DC: GPO, 1985), Document 37.
[340] Thomas J. Christensen, *Worse Than a Monolith : Alliance Politics and Problems of Coercive Diplomacy in Asia* (Princeton, NJ: Princeton University Press, 2011), p. 138.
[341] Ibid.
[342] Ibid.

was existential.

Next, on the deterrence front, given that it took almost 14 years for the Communists to win a victory over the Nationalists in the Chinese civil war, Taiwan's quick achievement of overthrowing Mao's regime would have seemed unlikely from Moscow's point of view. To be sure, the US's massive air bombing campaigns on Chinese coastal defense facilities and the following massive amphibious operations backed by the US superior naval and air forces could have contributed to Taiwan's swift and enormous power projection into the mainland. Nonetheless, mainland China was too huge for those forces to advance all the way up to Beijing in a swift fashion. In addition, as learned in the Sino-Japanese War (1937-1945) and the Chinese Civil War, Chinese Communists were very adept at conducting guerilla warfare, an effective means to delay the progress of war. Moreover, according to an estimated local-combat-power ratio for this period, US/Taiwan's adjusted CINC score is 1.35 times higher than China's. This ratio indicates that the combined US-Taiwan troops were unlikely to eliminate Chinese communists and recover the mainland China in a quick manner. Thus, I code Moscow's estimate of the likelihood of the Taiwan-US coalition's quick victory as "low" for this sub-period.

My theory predicts that the combination of "existential" and "low" would lead a nuclear patron—in this case, the Soviet Union—to adopt a "nuclear defense pact" strategy. Indeed, Moscow adopted the predicted strategy to protect Beijing. As Lewis and Xue put it, "the Sino-Soviet alliance of 1950 provided China a nuclear umbrella, and Mao welcomed its protection."[343] A few months ahead of the signing of the Sino-Soviet alliance, Stalin alluded to China's Second-in-Command, Liu Shaoqi, that Moscow would be willing to provide Beijing

[343] John Wilson Lewis and Litai Xue, *China Builds the Bomb* (Stanford, CA: Stanford University Press, 1988), p. 12.

with a nuclear umbrella once an alliance was formed.[344] As the Sino-Soviet alliance was founded, the Soviet nuclear umbrella over China was an "apparently established fact."[345] In October 1951, *Remin Ribao* (People's Daily), the official newspaper of the CCP, stated that Soviet nuclear weapons would "force our common enemy to lay down a bomb… [since] Soviet production of atomic weapons and our military intervention to resist America and aid Korea are serving the same purpose."[346] In 1954, when Mao requested Khrushchev to provide nuclear assistance to develop China's independent nuclear weapons, the Soviet leader rebuffed the request in that "the Soviet Union already provided nuclear protection for China."[347] In short, the Soviet nuclear umbrella over China was provided in a rhetorical way without entailing any forward-deployed nuclear weapons. Instead of on-shore nuclear weapons deployed on China's soil, the Soviet nuclear umbrella relied on off-shore nuclear weapons. Regarding this, a high-ranking Chinese official once stated: "Our ally, the Soviet Union, has both atomic and hydrogen bombs, as well as *long-range strategic bombers*, which can be used to retaliate against US use [of nuclear weapons] against China [emphasis added]."[348]

When it comes to a conventional dimension, the Soviet Union put only small-scale conventional token forces in the rear area of China. Specifically, Soviet naval forces were stationed in Lüshun [Port Arthur] and Dalian in the Liaodong Peninsula (Northeastern China, Manchuria).[349] In short, the first sub-period of the China case fits neatly with my theory.

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[344] Evan A. Feigenbaum, *China's Techno-Warriors : National Security and Strategic Competition from the Nuclear to the Information Age* (Stanford, CA: Stanford University Press, 2003), pp. 18-19.
[345] Ibid, p. 19.
[346] Cited in Shu Guang Zhang, "Between 'Paper' and 'Real Tigers': Mao's View of Nuclear Weapons," in *Cold War Statesmen Confront the Bomb: Nuclear Diplomacy since 1945*, ed. John Lewis. Gaddis, *et al.* (UK: Oxford University Press, 1999), 197.
[347] Zhihua Shen and Yafeng Xia, "Between Aid and Restriction: The Soviet Union's Changing Policies on China's Nuclear Weapons Program, 1954-1960," *Asian Perspective* Vol. 36, No. 1 (January/March 2012), 97.
[348] Cited in, Zhang, "Between 'Paper' and 'Real Tigers,'" 200.
[349] Strictly speaking, by the definition used in this paper, Lüshun/Dalian is located in a forward area. The direct distance between Taipei and Lüshun/Dalian (960 miles/956 miles) is shorter than the direct distance between Taipei and Beijing (1,071miles). However, the expected likely invasion route of US-Taiwan forces was land routes stretching from the southern to the northern provinces of mainland China, after landing on the southeast coast of

Entering 1960, the pre-existing Soviet extended deterrence strategy—a "nuclear defense pact" strategy—was shifted to a "conventional defense pact" strategy. That is, its nuclear umbrella over China had been folded and it was curtailed to a conventional umbrella. This strategy shift was derived from a change in Moscow's threat assessment from "existential" to "non-existential." To elucidate, the Soviet Union no longer viewed that China faced an existential threat from Taiwan and the US. This perception change originated from Beijing's judgement that Taipei's pursuit to take back mainland China was nearly infeasible and implausible due to the US's opposition and control over Taiwan's unilateralism.[350]

More importantly, Washington itself alluded to Beijing through various channels that it did not have any intentions to invade mainland China in order to overthrow Mao's regime.[351] Thus, Beijing predicted that even if Taiwan would attack its territory, such an attack would not be aimed beyond the southeastern coastal cities opposite Taiwan. Namely, Taiwan's potential attack would be driven to solidify its ownership over off-shore islands, including the Quemoy and Matsu islands. Mao even welcomed the enemy's attack due to its domestic political purpose. Mao stated "if the enemy attacks [first] at Zhangzhou, Shantou, Fuzhou, [and] Hangzhou, that would be most wonderful."[352] Consequently, after the Second Taiwan Strait Crisis of 1958, the Chinese leadership's apprehensions about external threats were significantly

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the continent (e.g., Fujian province). In contrast, it was highly unlikely to land on the Liaodong Peninsula first and advance toward Beijing along the Bohai Sea coast. Given this likely invasion course, it is reasonable to treat Lüshun/Dalian as a rear area.

[350] H. D. Gordon Leonard, "United States Opposition to Use of Force in the Taiwan Strait, 1954-1962," *The Journal of American History* 72, no. 3 (1985).

[351] For example, see, "Discussion between N.S. Khrushchev and Mao Zedong," October 02, 1959, History and Public Policy Program Digital Archive, Archive of the President of the Russian Federation (APRF), f. 52, op. 1, d. 499, ll. 1-33, copy in Volkogonov Collection, Manuscript Division, Library of Congress, Washington, D.C. Translated by Vladislav M. Zubok. http://digitalarchive.wilsoncenter.org/document/112088; "From the Journal of Ambassador S.F. Antonov, Summary of a Conversation with the Chairman of the CC CPC Mao Zedong," October 14, 1959, History and Public Policy Program Digital Archive, SCCD, Fond 5, Opis 49, Delo 235, Listy 89-96. Translated by Mark H. Doctoroff. http://digitalarchive.wilsoncenter.org/document/114788.

[352] Cited in Thomas J. Christensen, *Useful Adversaries : Grand Strategy, Domestic Mobilization, and Sino-American Conflict, 1947-1958* (Princeton, N.J.: Princeton University Press, 1996), p. 226.

ameliorated.[353] Such an affirmative viewpoint was conveyed to Moscow. For example, in a conversation with Khrushchev, Chinese Prime Minister Zhou Enlai stated:

> "The situation has already become clear. The United States knows that we are not preparing to do battle with it… We also know that America is not preparing to do battle with us over [the] Quemoy issue."[354]

Similarly, when Deng Xiaoping met with the Soviet ambassador to China, Pavel Yudin in May 1959, Deng revealed little fear of possible external aggression to his Soviet counterpart.

> "The most important thing of all is that they know the Americans want to wash their hands of them. The USA does not trust Jiang Jieshi, and he does not trust the United States."[355]

In short, going through the second Taiwan Strait crisis, Chinese leaders became convinced that possible external aggression against their territories would be driven by Taiwan's objective of tightening its ownership over its offshore territories (e.g., the seizure of Chinese coastal cities opposite the Taiwan Strait following bombing campaigns against the particular areas), instead of recovering the Chinese mainland. Taken together, it would be reasonable to conclude that around 1960, Kremlin's perspective of the threat posed to Beijing had shifted from an existential to a non-existential threat.

Next, on the deterrence front, the estimated likelihood of the enemy coalition's quick victory over China was low. Through the two Taiwan Strait Crises of 1954 and 1958, Beijing went to great lengths to bolster its indigenous coastal and air-defense capabilities in order to

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[353] Ibid. pp. 225-227. Also see, M. Taylor Fravel, "Power Shifts and Escalation: Power Shifts and Escalation: Explaining China's Use of Force in Territorial Disputes," *International Security* 32, no. 3, (Winter 2007/2008), 63.

[354] Christensen, *Useful Adversaries*, p. 235.

[355] "Report of Conversation with the General Secretary of the CCP CC, Deng Xiaoping," June 03, 1959, History and Public Policy Program Digital Archive, http://digitalarchive.wilsoncenter.org/document/111506. Relatedly, although the conflict heated up again in the Taiwan Strait in 1962, any violence was avoided in 1962 because the US used diplomatic channels to reassure China's leaders that "Washington did not support Chiang's adventurism and dissuaded him from attacking the mainland." M Taylor Fravel, *Strong Borders, Secure Nation: Cooperation and Conflict in China's Territorial Disputes* (Princeton: Princeton University Press, 2008): 250.

effectively halt and defeat the enemy's quick encroachment into its territory.[356] As examined above, the nature of hostilities began to be viewed as a conflict over limited territories. With the US's efforts to wash its hands of the Taiwan question, Beijing revealed confidence in its self-reliant deterrence capabilities to deal with potential external aggression. In November 1958, Mao even suggested that Zhou Enlai resume artillery shelling on Quemoy Island in order to "give Jiang's [Chiang Khai-Shek's] troops an excuse for refusing to withdraw [from the island]."[357] This anecdotal evidence shows that Mao already knew that the enemy's quick and decisive military success in a limited operation against its coastal cities would be unlikely. By extension, Mao told Khrushchev in a summit meeting on October 2, 1959 that the Taiwan issue will not be concluded "for 10, 20 and perhaps 30 years," discounting the possibility of the enemy's quick victory over them in the event of war.[358] Lastly, the local-combat-power ratio for the second sub-period is estimated at 0.91:1, suggesting that the enemy's quick victory was highly unlikely in the event of war. Taken together, Moscow was highly likely to judge that the enemy's quick victory over China would be unlikely.

In short, this sub-period is characterized by the combination of a "non-existential" threat and the "low" likelihood of quick victory. In this setting, my theory predicts that the Soviet Union would adopt a "conventional defense pact" strategy. As predicted, the end result was a Soviet strategy shift in 1960 from a "nuclear defense pact" to a "conventional defense pact," and Moscow's complete termination of providing a nuclear umbrella over China. It would be reasonable to say that under an improved security environment surrounding China, the Kremlin

[356] "Memorandum of Conversation, between Soviet Premier Georgy M. Malenkov and Zhou Enlai," July 29, 1954, History and Public Policy Program Digital Archive, AVPRF f. 06, o. 13a, d. 25, II. 8. Obtained by Paul Wingrove and translated by Gary Goldberg. http://digitalarchive.wilsoncenter.org/document/111272.
[357] "Letter, Mao Zedong to Zhou Enlai, Chen Yi, Huang Kecheng," November 02, 1958, History and Public Policy Program Digital Archive, Zhonggong zhongyang wenxian yanjiushi, ed., Jianguo yilai Mao Zedong wengao (Mao Zedong's Manuscripts since the Founding of the People's Republic of China), vol. 7 (Beijing: Zhongyang wenxian chubanshe, 1992), 490. http://digitalarchive.wilsoncenter.org/document/117021.
[358] "Discussion between N.S. Khrushchev and Mao Zedong," October 02, 1959

would have judged that a nuclear commitment was no longer essential to reassure the client. Unfortunately, there is no smoking-gun evidence that Moscow decided to withdraw an ongoing nuclear umbrella over China. However, Moscow's decision to rescind ongoing nuclear cooperation with Beijing around 1960 was a symbolic event heralding the end of its nuclear umbrella over Beijing.[359] The reason was that Moscow regarded a nuclear cooperation with Beijing as an agenda closely linked to China's nuclear protection.[360]

Getting furious at Moscow's unilateralism, Beijing decided to develop nuclear weapons by itself. In 1964, China succeed in detonating its first nuclear bomb and became a fourth nuclear power.

When it comes to a conventional dimension, the Soviet token-troops stationed in the Lüshun-Dairen area had already been pulled out of China by November 1955.[361] After China's nuclear development, Soviet extended deterrence over China virtually ended.[362] The Sino-Soviet alliance was officially disintegrated on February 16, 1979 due to severe intra-alliance conflicts between the two communist states.

To conclude, both sub-periods of the China case corroborate my theory.

Soviet Extended Deterrence to Mongolia (1966-1991 (O))

Mongolia, geographically a buffer state between the Soviet Union and the PRC, was a Soviet satellite and client state. After a short honeymoon period, Sino-Soviet relations deteriorated

[359] Specifically, in June 1959, the Soviet Union reneged on its prior promise to provide China with sensitive nuclear technologies such as an A-bomb teaching model and technical materials. All Soviet nuclear experts were recalled from China in June 1960. Shen and Xia, "Between Aid and Restriction," pp. 109-114.
[360] Ibid., 97.
[361] Nikita Sergeevich Khrushchev, *Memoirs of Nikita Khrushchev: Reformer [1945-1964]*, ed. Sergeĭ Khrushchev, vol. 2 (University Park, PA: Pennsylvania State University Press, 2006), p. 453, fn. 2; "Lüshun (Port Arthur)," Encyclopaedia Britannica, https://www.britannica.com/place/Dalian.
[362] Recall that the scope of this paper only covers global nuclear patrons' extended deterrence over *non*-nuclear clients in the case of bilateral alliances.

from 1960. China took a gradually hostile policy toward the Soviet Union and Mongolia alike. "As the new threat from China was perceived and then grew more ominous," the Soviet Union and Mongolia became militarily close.[363] In response to a growing Chinese threat, by the early 1960s, the two countries discussed the possibilities of Mongolia's entry into the Warsaw Pact. In 1963, Soviet leader Nikita Khrushchev informed the Warsaw Pact Satellites of his intention to follow this course of action. However, Poland and Romania opposed the idea on the ground that Mongolia's accession to the Pact would apparently upset Beijing. Eventually, Khrushchev scrapped the idea.[364]

Then, in December 1965, Ulaanbaatar secretly asked Moscow to sign a bilateral treaty and "station *an appropriate unit from the Soviet Armed forces* to defend Mongolia from possible sudden attacks [emphasis in original]."[365] Mongolia expected that the Soviet Union could provide a security shield against "the menacing neighbor in the South."[366] Finally, on January 15, 1966, the two countries signed a *Treaty of Friendship and Cooperation* (ATOP ID: 3535). Article 5 of the treaty pledged Moscow's commitment to assist Mongolia in case of external attack: "they (the parties) shall jointly take all necessary measures, including military measures, with a view to ensuring the security, independent and territorial integrity of the two countries."[367]

On the assurance front, a threat from the PRC to Mongolia was perceived to be very severe. The Soviets viewed that the very existence of Mongolia was being threatened by Chinese communists. As one study put it, "[t]he Mongols were even more concerned than the Soviets about the Chinese threat; they feared China's irredentism: after all, the Chinese leadership

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[363] Globalsecurity.org, "Group of Soviet Forces in Mongolia," The webpage is available at https://www.globalsecurity.org/military/world/russia/gsfm.htm.
[364] Sergey Radchenko, "Soviet Withdrawal from Mongolia, 1986–1992: A Reassessment," *The Journal of Slavic Military Studies* 25, no. 2 (2012), 186
[365] Ibid.
[366] Ibid.
[367] ATOP Dataset Coding Sheet, "ATOP ID: 3535."

continued to question Mongolia's independence, appealing to the Soviets (as late as 1956) to assist in the country's accession to China."[368] Against this backdrop, Moscow judged that a driver of possible Chinese attack against Mongolia would be the political absorption of the client. When the bilateral pact was signed, the Soviet leader, Leonid Brezhnev said:

> "As is known, China has not renounced its claim towards its northern neighbors and this is sufficient for both the Soviet Union and Mongolia to be vigilant…. Basic sense of the Russia-Mongolia treaty lies in the fact that it recognizes the real possibility that *the independence of a Socialist country can be endangered by another Socialist country* [emphasis added]."[369]

Indeed, the main element determining and governing the Soviet-Mongolian alliance was "Mongol uneasiness over China's aggressive intentions towards Mongolia."[370] In short, Ulaanbaatar's existence was assessed to be at grave risk due to Beijing's menace.

Next, on the deterrence front, predictably, the Soviet Union had a very pessimistic assessment of Mongolia's self-reliant deterrence capabilities against China. It was obvious to Soviet leaders that the swift Chinese overrun of Mongolia would be unavoidable should the PRC invade the client. Above all, the size of Mongolian armed forces was far from sufficient to guard the 2,880-mile-long border shared with China. According to the COW National Military Capability Dataset, the number of Mongolian military personnel as of 1966 was nearly nil (0), implying that Mongolia did not possess a modern regular army.[371] In contrast, the PRC possessed about 2.6 million troops at the time.[372] Among them, China deployed about "one million troops in the military regions of Sinkiang [Xinjiang], Lanchou [Lanzhou], Peking

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[368] Radchenko, "Soviet Withdrawal from Mongolia, 1986–1992," 185.
[369] Quoted in Ram Rahul, "Mongolia between China and Russia," *Asian Survey* 18, no. 7 (July 1978), 662.
[370] Ibid., 664.
[371] According to the codebook for the dataset, the number of military personnel under 500 is rounded down to zero (0). See, Correlates of War Project, "National Material Capabilities (NMC) Data Documentation (Version 5.0)." The codebook is available at https://correlatesofwar.org/data-sets/national-material-capabilities/nmc-codebook-v5-1. From 1970, Mongolia starts to possess military forces (33,000). The troop size ranges from 25,000 to 47,000 between 1970 and 1991. See, Correlates of War Project, National Military Capability Dataset (Version 5.0). Dataset is available at https://correlatesofwar.org/data-sets/national-material-capabilities.
[372] Correlates of War Project, National Military Capability Dataset (Version 5.0).

[Beijing], and Shenyang"—Chinese military regions adjacent to Mongolia.[373] Given Mongolia's nascent military forces, it is no exaggeration to say that the PRC possessed not only a numeric but also an overwhelming qualitative superiority over the client as well. The estimated local-combat-ratio of the Sino-Mongolian dyad tilted completely in China's favor (343.94:1), therefore, is an unsurprising result. Taken together, the perceived likelihood of China's quick victory against Mongolia was very high from Moscow's point of view.

To sum up, the case of Mongolia is characterized by the combination of an "existential threat" and a "high" likelihood. For my theory to be correct, the Soviet Union should have adopted a "forward nuclear deployment" strategy. As I will show below, the nuclear patron indeed adopted the predicted strategy—"forward nuclear deployment"—for Mongolia's protection.

More specifically, regarding the nuclear dimension, the Soviet Union deployed its nuclear weapons (SS-12) to Mongolia. The Soviet nuclear forces were based at the outskirts of Ulaanbaatar.[374] Moreover, Moscow used nuclear blackmail to deter China from attacking the client. A study explained this as follows:

> "On the occasion of the anniversary of the Soviet-Mongolian defeat of Japan on September 2, 1968, the Soviet Union warned China that any attack on Mongolia would be dealt with in the same way the Japanese threat had been met in the mid-1940s—i.e., with military force."[375]

In short, the Soviet forward-deployed nuclear weapons were designed to incur massive damage to invading Chinese forces to preclude them from quickly overrunning the client. Furthermore, as shown above, Moscow set up a public nuclear blackmail against Beijing.

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[373] J. Enkhsaikhan, "Mongolia's Nuclear-Weapon-Free Status: Concept and Practice," *Asian Survey* 40, no. 2 (March/April 2000), 344.

[374] In response, Beijing repeatedly criticized Moscow for deploying nuclear weapons in Mongolia. See, Fuhrmann and Sechser, "Appendices for "Signaling Alliance Commitments,"" 6.

[375] Rahul, "Mongolia between China and Russia," 663.

Next, regarding the conventional dimension, the Soviet Union deployed a substantial combat-ready forces-in-being in Mongolia. A historian provided more details on the Soviet massive boots-on-the-ground as follows:

> The decision to send troops was made by the Politburo on 4 February 1967. In 1968 the first tanks of the 39th Soviet Army of the Zabaikalskii Military District (ZabVO), crossed the Soviet-Mongolian border. The army was strengthened over the years, … By the mid-1980s, the number of Soviet military personnel in Mongolia reached 82,000 (that is, over 100,000 people, counting families). It was a formidable force, some of the finest troops in the Soviet military. Just the 39th army comprised five divisions, two of them were tank divisions well-endowed with T-72s. Among other Soviet assets in Mongolia were detachments of the 23rd air army (MiG-21s, MiG-23s, MiG-27s and Su-17s), anti-aircraft installations, as well as communications, intelligence and support units. These forces were fully staffed and battle-ready…[376]

Their locations were strategically deployed in forward areas: Mongolia's eastern, western, and southern regions share a border with China. Ulaanbaatar is located in the north-central part of Mongolia. Given this geopolitical setting, Mongolia's forward areas opposite China become places closer than Ulaanbaatar to the Sino-Mongolia border (that is, Mongolian soils east, west, and south of Ulaanbaatar as well as within Ulaanbaatar itself). Indeed, a large portion of the massive number of Soviet troops in Mongolia were reportedly placed in forward areas. Headquartered in Ulaanbaatar, they sat astride likely Chinese invasion routes to Ulaanbaatar, such as Arvayheer [Арвайхээр], Baganuur [Багануур], Bayankhangai [Баянхангай], Choibalsan [Чойбалсан], Choir [Чойр], Mandalgovi [Мандалговь], Nalaikh [Налайх], Sainshand [Сайншанд], and Shiveegovi [Шивээговь].[377] These forward deployments were testament to the Soviet Union's willingness and capability to deter and defeat the enemy force's

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[376] Radchenko, "Soviet Withdrawal from Mongolia, 1986–1992," 186. Also see, Globalsecurity.org, "Group of Soviet Forces in Mongolia."

[377] One caveat is that these Mongolian cities were mentioned by retired soviet soldiers who served in the 39th Soviet Army in Mongolia. Since the information was created based fully on their memories, but unconfirmed by the official Soviet documents, it might be somewhat inaccurate. The source of the information is "состав частей 39- й армии (Composition of Units of the 39th Army)," Форумы (Forums), Монголия ЗАБВО (Mongolia ZabVO), Братство ЗабВО [Забайка́льский вое́нный о́круг] (Brotherhood of the Trans-Baikal Military District), http://zabvo.ru/e107_plugins/forum/forum_viewtopic.php?53508.0. Also see, "Светские Военные Части в Мнр: 91 Мотострелковая дивизия (35-я площадка)," (Secret military units in Mongolia: 91 Motorized Rifle Division (35th site)," Legend Tour, Mongolia, https://legendtour.ru/rus/mongolia/regions/shiveegov_military_base.shtml.

quick advances deep into Mongolian territory, taking a leading role in protecting the client on behalf of the client's fledgling forces.

In conclusion, the case of Mongolia supports my theory.[378]

Soviet Extended Deterrence to North Korea (1961-1991 (x))

The Soviet Union and North Korea signed a security alliance on July 6, 1961 (ATOP ID: 3546). Article I of the alliance treaty states that:

> "Should either of the Contracting Parties suffer armed attack by any State or coalition of States and thus find itself in a state of war, the other Contracting Party shall immediately extend military and other assistance with all the means at its disposal."[379]

The alliance was designed to protect North Korea from its main external threat: a ROK-US combined threat. The developments surrounding the Korean Peninsula in the 1950s and the early 1960s exacerbated Pyongyang's security environment significantly. For example, the US and South Korea signed a mutual defense treaty in 1953. Subsequently, the US deployed nuclear weapons to South Korea in 1958. In January 1960, the US signed a more comprehensive alliance treaty with Japan, replacing the previous 1951 treaty. Normalization negotiations between the ROK and Japan were already underway, which would pave the way for the formation of a trilateral anti-communist bloc in the region.[380] What was worse, amid

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[378] Note that the last year of the Mongolia case is "1991," the year when the Soviet Union was officially dissolved. One might then wonder why the times after 1991 are not considered in this study. Indeed, the pre-existing 1966 alliance pact (ATOP ID: 3535) that stipulated the Soviet security commitment to Mongolia was replaced by a new bilateral treaty (ATOP ID: 4395) in January 1993—about a year after the collapse of the Soviet Union. According to the ATOP dataset, however, the new 1993 pact does not contain Russia's security commitment to Mongolia, meaning that the previous Soviet commitment to Mongolia was not afterwards taken over by Russia. Instead, the new pact is categorized only as a "nonaggression pact" in the ATOP dataset. Therefore, the period of the new treaty (1993-pressent) is excluded from the universe of cases of this study.

[379] The full text of the alliance treaty is available at Douglas M. Gibler, *International Military Alliances, 1648-2008* (Washington, DC: CQ Press, 2009), pp. 422-23.

[380] 김보미 [Bo Mi Kim], "중소분쟁시기 북방삼각관계가 조소·조중동맹의 체결에 미친 영향 (1957~1961) [The Impact of DPRK-PRC-USSR Relations on Concluding Treaties of Alliances during the Sino-Soviet Split, 1957-1961]," *북한연구학회보 [North Korean Studies Review]* 17, No. 2 (2013), 177, 184.

the worsening security environment, an important event occurred on May 16, 1961. A ROK general Park Chung-hee seized power through a military coup. Under the banner of strong anti-communism, Park proclaimed that his regime would go to great lengths to cultivate national capabilities to achieve the reunification of the Korean Peninsula. Park often revealed his hawkish stance toward North Korea without hesitation. In his addresses, for instance, he called North Korea "a dual colony of the Soviet Union and China," "South Korea's territory," and "a lost territory to be recovered."[381] Pyongyang viewed Park's hawkish rhetoric and hostile stance very seriously. The North Korean leadership came to conclude that Park's regime would attempt to devastate and invade North Korea for years to come. In response, North Korean leaders discussed countermeasures against a serious threat from the South.[382]

As a most reliable countermeasure, the North pursued close security ties with the Soviet Union.[383] Kim Il-Sung, a North Korean leader, scrambled to visit Moscow in June 1960 to discuss the issue of alliance formation. In a series of meetings with top-ranking Soviet leaders, including Khrushchev, Kim Il-Sung stressed the imperativeness of the Soviet security guarantee to his country.[384] The North's efforts bore fruit. In July 1961, the two countries signed a mutual defense pact. Given the apparently worsening security environment surrounding North Korea around 1961, the Soviet leadership was likely to judge that North Korea's existence was put in jeopardy.

When it comes to the deterrence front, the combined US-South Korea military capabilities apparently outnumbered and outgunned North Korea. This means, if war had occurred, North

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[381] 김지형 [Ji-Hyung Kim], "5.16 군정기 박정희통치이념의 논거: 반공주의와 민주주의를 중심으로 [The Theoretical Reasons for Governing Ideology of Park Chung-hee during 1961~1963: The Case of the Democracy and Anticommunism]," 동아시아문화연구 [Journal of East Asian Cultures] 53, 229

[382] Kim, "The Impact of DPRK-PRC-USSR Relations on Concluding Treaties of Alliances during the Sino-Soviet Split, 1957-1961," 178.

[383] On top of that, to counter a growing external threat, the North decided to launch a seven-year military modernization program in 1961—two years earlier than originally planned. Ibid., 178-179.

[384] Ibid., 182-183.

Korea could have quickly fallen to the US-ROK combined troops. As of 1961, about 57,700 US troops were stationed on South Korean soil, of which most were deployed on the North's doorstep—DMZ. In addition, previously very poor South Korean forces vis-à-vis North Korea prior to the outbreak of the Korean War had achieved considerable arms build-up, both from quality and quantity aspects. As of 1961, ROK troops (570,000) already outnumbered DPRK troops (390,000).[385] Furthermore, thanks to Washington's wholehearted military assistance to Seoul, the South had quickly improved its warfighting capabilities vis-à-vis the North beyond the DMZ.[386] The local-combat-power ratio affirms the validity of this measurement of the deterrence factor. The US-ROK's adjusted CINC score is 40.4 times greater than North Korea's as of 1961. This means that the potential attackers were highly likely to achieve a quick victory over North Korean forces in the event of war.

Taken together, the Soviet Union was likely to have a downbeat assessment of the North's self-reliant deterrence capabilities against the ROK-US combined forces. The fact that the Soviet Union offered comprehensive military aids to North Korea, including arms transfer of a variety of weapons (e.g., aircraft) to the client at the time, indicates that Moscow judged that its client would likely be rapidly overrun by enemy forces in the event of war.

In sum, this case is characterized by an "existential" threat and a "high" likelihood. In this situation, my theory predicts that the Soviet Union would adopt a "forward nuclear deployment" strategy. The reality contradicts my prediction, however. From 1961 onwards, the Soviet Union

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[385] The Correlates of War Project, National Material Capabilities Dataset (v. 5.0).

[386] More specifically, "over the fiscal years 1950 to 1963, U.S. military assistance to the ROK, exclusive of the cost of U.S. participation in the Korean War, totaled almost two billion dollars." The US military assistance program (MAP) accounted for the most portion of the entire cost of defense of South Korea. For example, the US MAP to South Korea of Fiscal Year (FY)-1963 bore 70-75 % of total cost of South Korean defense. Also, South Korea was the biggest recipient country of the US military aid in the 1950s and the 1960s. National Policy Paper, Part Two, p. 137 in RG 59, Box 305, Korea 1965 Folder, National Archives and Records Administration, College Park, Maryland; Summary of meeting, the Committee to Strengthen the Security of the Free World, p. 3 in Assistance to Foreign Countries 1963 Folder, RG 59, Box 240, NARAMD; "Military Assistance Manual" in Assistance to Foreign Countries 1963 Folder, RG 59, Box 240, NARAMD; "U.S. Military Assistance Programs—Total from all resources, 1950-1969," https://nacla.org/article/us-military-assistance-programs-totals-all-sources-1950-69.

adopted a "conventional defense pact" strategy to protect the North. Specifically, the Soviet Union provided a merely conventional-level security guarantee to the client. The Kremlin basically did not have an interest in pre-deploying its troops in the front area of the client's territory—south of Pyongyang—as a hedge against a potential joint US-South Korea aggression. Similarly, the Soviet Union did not deploy nuclear weapons to the client. Moscow did not provide a nuclear guarantee in a rhetorical or textual manner either.

To conclude, this case does not substantiate my theory.

Soviet Extended Deterrence to the Warsaw Pact (1955-1991 (O))

NATO's formation, and particularly, the accession of the remilitarized West Germany into NATO in 1955, was viewed by the Soviet Union and its eastern European satellites as a huge external threat. To counter NATO's increasing threat, just five days after West Germany joined NATO, the Soviet Union and satellite states established the Warsaw Pact, a formal collective-defense pact of Communist states on May 14, 1955 (ATOP ID: 3285). Article 4 of the Warsaw Pact Treaty stipulates:

> "In the event of an armed attack in Europe on one or more of the States Parties to the Treaty by any State or group of States, each State Party to the Treaty shall, ..., afford the State or States so attacked immediate assistance, individually and in agreement with the other States Parties to the Treaty, by all the means it considers necessary, including the use of armed force..."[387]

By signing the treaty, Moscow now bore a responsibility to protect its European satellites during the remaining Cold War years.

[387] "Treaty of Friendship, Cooperation and Mutual Assistance Between the People's Republic of Albania, the People's Republic of Bulgaria, the Hungarian People's Republic, the German Democratic Republic, the Polish People's Republic, the Rumanian People's Republic, the Union of Soviet Socialist Republics and the Czechoslovak Republic," May 14, 1955. The full text of the treaty is available at https://avalon.law.yale.edu/20th_century/warsaw.asp. Also, see, ATOP Coding Sheet, "ATOP ID: 3285."

On the assurance front, during the Cold War, Moscow believed non-Soviet Warsaw Pact countries were exposed to a Western existential threat. This high threat perception is contained in the text of the treaty. The preamble clarifies that

> "…, with the participation of a remilitarized Western Germany and the integration of the latter [West Germany] in the North-Atlantic bloc, which increased the danger of another war and constitutes a threat to the national security of the peaceable states; being persuaded that in these circumstances the peaceable European states [the Warsaw Pact states] must take the necessary measures to safeguard their security and in the interests of preserving peace in Europe; [and thus] have decided to conclude the present Treaty of Friendship, Cooperation and Mutual Assistance."[388]

Indeed, during the Cold War, Moscow feared that NATO would wage a full-scale invasion, with the objectives of entirely crushing and liberating Pact clients from Soviet control.[389] For example, Yuri Andropov, the Secretary General of the Communist Party of the Soviet Union (CPSU) Central Committee, blamed the current US "militarist course" and "the intensifying anti-Soviet psychosis in the West" as posing "a serious threat to peace."[390] In short, it was reasonable to say that the Soviet Union believed the Western threat put non-Soviet Warsaw Pact clients' survival at risk.

On the deterrence front, if NATO were to invade Eastern European clients, the Communist satellites were highly likely to be swiftly overrun without Soviet assistance. The clients' under-armed and under-disciplined condition of troops drove the need for full-scale military assistance and the arms build-up of the satellite troops. For example, from the outset of the Warsaw Pact, Moscow went to great lengths to reinforce its clients' indigenous troops. As a

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[388] Ibid.

[389] For declassified Soviet documents reflecting this view, see, "The Soviet Side of the 1983 War Scare," The National Security Archive, updated November 5, 2018, https://nsarchive.gwu.edu/briefing-book/aa83/2018-11-05/soviet-side-1983-war-scare#_ednref7. For a snapshot, see David E. Hoffman, "In 1983 'War Scare,' Soviet Leadership Feared Nuclear Surprise Attack by U.S.," *The Washington Post*, October 24, 2015.

[390] *Pravda,* September 29, 1983, cited in Raymond L. Garthoff, *The Great Transition: American-Soviet Relations and the End of the Cold War* (Washington, DC: Brookings Institution, 1994), p. 130; "Document 14. Central Committee of the Communist Party of Ukraine to Vladimir Shcherbitsky, "on the Reaction to the Speech of General Secretary Yuri Andropov," September 19, 1983, Secret," (Washington, DC: The National Security Archive, 2018).

result, "the non-Soviet forces have [had] grown from weak, poorly-equipped and-[under]organized home defense units to highly-trained, modernized and military forces" by the mid-1960s.[391] Even Western intelligence reports estimated that "the Satellite ground and air forces current deficiencies will continue to limit the military usefulness of these forces."[392] The local-combat-power ratio for this case also reaffirms the forgoing measurement of the deterrence factor. Specifically, as of 1955, NATO's adjusted CINC score is about 7.6 times higher than non-Soviet Warsaw Pact states' CINC score (7.63:1). In short, Moscow's assessment of NATO's quick victory over Eastern European clients was high.

In this situation—the combination of "existential" and "high"—my theory predicts that the Soviet Union would have adopted a "forward nuclear deployment" strategy. Indeed, the Soviet Union had deployed massive nuclear weapons on Satellites' soil since 1958, including Bulgaria, Czechoslovakia, East Germany, Hungary, and Poland.[393] The forward nuclear deployment was intended to strike NATO's invading troops to forestall their quick overrunning of the Pact Satellites in the event of war. In addition, the Soviet Union deployed large-scale conventional shield troops near the inter-German borderlines. The conventional shield troops were designed to 1) trigger early reinforcements by an early involvement in warfare (tripwire function) and to 2) stop and delay the swift advances of NATO forces deep into the Communist bloc (interdiction function).[394] Until 1990, the year complete force withdrawal began from East Germany, about 338,000 Soviet forces armed with "4,200 tanks, 3,700 artillery tubes, 1,400

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[391] CIA Intelligence Study, June 7, 1965, "Warsaw Pact Military Strategy: A Compromise in Soviet Strategic," p. 27, Directorate of Intelligence, Document no. 5166d4f899326091c6a606fc, CIAERR

[392] CIA, "Interagency Working Group 5 for National Security Study Memorandum 84," Final Report of the Working Group, The Warsaw Pact Threat to NATO, p. 80,

[393] Fuhrmann and Sechser, "Appendices for "Signaling Alliance Commitments.""

[394] For example, as of 1950, the Soviet Union deployed 25 ground divisions within frontline clients, including Germany and Poland. As of May 1970, the Soviet Union had put 27 combat-ready divisions in East Germany, Poland, and Czechoslovakia. See, "S.G. 20/21 Final, Estimates of Enemy Capabilities and Possible Courses of Action." p.10, NATOA; CIA, "Interagency Working Group 5 for National Security Study Memorandum 84," p. 50.

aircraft and 677,000 tons of ammunition" were stationed on the client's soil.[395]

Furthermore, the Soviet Union established a variety of consultation bodies and institutional apparatuses to efficiently implement its extended security commitments to the Pact states. Specifically, the multilateral alliance was based on the two permanent consultative bodies: 1) the Political Consultative Committee and 2) the Combined Command of Pact Armed Forces. The former body primarily handled the political matters where all member states discussed and coordinated their thoughts and response concerning common international issues.[396] The latter body handled the military matters where the Soviet Union and the Pact states shared their combat and mobilization readiness; developed operation/logistics plans; organized joint military exercises; and coordinated the deployment of troops.[397] These highly institutionalized apparatuses functioned as a testament to the Soviet Union's unwavering commitment to the Pact member states' security.

The Soviet Union's security umbrella over the Pact clients came to end when the Warsaw Pact dissolved and the Soviet Union collapsed in 1991. In conclusion, this case corroborates my theory.

Russian Extended Deterrence to CST/CSTO (1992-Present (O))

The Collective Security Treaty Organization (CSTO) was founded on the basis of the

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[395] Rick Atkinson, "Russian Troops Leave Germany," *The Washington Post*, September 1, 1994.

[396] "Warsaw Pact Treaty," May 14, 1955, History and Public Policy Program Digital Archive, American Foreign Policy, 1950-1955: Basic Documents Vol 1, Department of State Publication 6446, General Foreign Policy Series 117 (Washington, DC : Government Printing Office, 19), particularly Article 4 and Article 6 of the Treaty. Wilson Center Digital Archive, http://digitalarchive.wilsoncenter.org/document/123891.

[397] "Statute of the Unified Command of the Member States of the Warsaw Treaty," September 07, 1955, History and Public Policy Program Digital Archive, KC PZPR 2661/16-19, Archiwum Akt Nowych, Warsaw. Wilson Center Digital Archive, http://digitalarchive.wilsoncenter.org/document/117159. Also see, Matthias Uhl, "Soviet and Warsaw Pact Military Strategy from Stalin to Brezhnev The Transformation from "Strategic Defense" to "Unlimited Nuclear War," 1945-1968,"in *Blueprints for Battle: Planning for War in Center Europe, 1948-1968* ed., Jan Hoffenaar and Dieter Kruger (Lexington, KY: University Press of Kentucky, 2012), 33-53; Dimitri, N. Filippovych, "The Logistics System of the Soviet and Warsaw Pact Armed Forces in the 1950s and 1960s," in ibid., 109-119.

Collective Security Treaty (CST) signed on May 15, 1992 (ATOP ID: 4220, Phase 1). Russia and eight former Soviet republics comprised the multilateral security arrangement, "forming an important assurance of security" for the former Soviet states.[398] Article 4 of the CST stipulates:

> "If one of the Member States undergoes aggression, it will be considered by the Member States as aggression to all the Member States of this Treaty. In case of aggression commission to any of the Member States, all the other Member States at request of this Member State shall immediately provide the latter with the necessary help, including military one…"[399]

At the 10th anniversary of the signing of the CST, member states decided to establish "a new, fully fledged" multilateral intergovernmental alliance: the CSTO (ATOP ID: 4220, Phase 2).[400]

On the assurance front, Moscow was likely to have a sanguine threat perception. The majority of CST/CSTO members even did not view NATO as an explicit external threat to their security during the first two decades following the formation of the Russia-led multilateral alliance. Notably, except for Belarus, most clients did not feel threatened by NATO even after its expansion eastward.[401] Rather, the clients made great efforts to maintain cooperative relations with NATO.[402] "It was only in 2014, after the crisis in Ukraine began, that the CSTO formally abandoned those efforts" and started to view NATO as an explicit external threat.[403] Despite the growing tensions with NATO over the past few years, clients' survival was not put at risk. There is no convincing evidence that NATO has been preparing for direct aggression against CSTO member states—a so-called "club of dictators"—to supersede the illiberal

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[398] The eight republics include Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan. Ankit Panda, "Csto Looks Away from Nato and toward Sco," *The Diplomat*, April 26, 2014.
[399] "International Organisations: Collective Security Treaty Organization," Ministry of Foreign Affairs of the Republc of Armenia, https://www.mfa.am/en/international-organisations/1.
[400] "Following ratification by all member states, the Charter of the CSTO came into force in 2003." Nikolai Bordyuzha, "The Collective Security Treaty Organization: A Brief Overview," ed. Institute for Peace Research and Security Policy. Available at https://ifsh.de/file-CORE/documents/yearbook/english/10/Bordyuzha-en.pdf.
[401] Elia Bescotti, "The Collective Security Treaty Organisation and Its Limits on Integration," *Euraisan Studies*, February 1, 2018.
[402] Joshua Kucera, "Csto to Cut Contacts with Nato, Increase Ties with Sco," *Eurasianet*, April 24, 2014.
[403] Joshua Kucera, "Russia to Enlist Allies in Fight against Nato," *Euraisanet*, December 13, 2016.

regimes with liberal democratic regimes.[404] Rather, if such an unlikely aggression occurs, it would likely be driven by limited objectives, such as the territorial occupation of a disputed area and the consolidation of ownership over a contested region. For instance, there has been a long-standing dormant territorial conflict between Armenia (CSTO member) and Turkey (NATO member) over the area of Mount Ararat.[405] Thus, I code the value of the type of external threat as "non-existential" in this case.

Next, on the deterrence front, it is likely that Moscow has had a pessimistic perspective of clients' self-reliant deterrence capabilities. This is simply because of NATO's overwhelming military supremacy over the CST/CSTO clients. Specifically, NATO mobile troops armed with state-of-the-art weapons would allow them to quickly penetrate defense lines and advance deep into clients' territory. An expert soberly assessed the clients' military capabilities in comparison to NATO's as follows: "Beyond any doubt, the cumulative military strength of the CSTO members excluding Russia is far less than that of Turkey, the second largest NATO army, or even of the UK or France."[406] This pessimistic assessment was one reason why the CSTO created a Collective Rapid Reaction Force (CRRF) based on the Russian Airborne Division and Airborne Assault Brigade.[407] Lastly, the local-combat-power ratio for this case is estimated approximately at 22.8:1 (as of 1992) in NATO's favor, implying that NATO's quick overrunning of CST/CSTO clients was highly likely. For these reasons, I code the likelihood of the enemy's quick victory as "high" in this case.

When a "non-existential" threat is combined with the enemy's "highly likely" quick victory,

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[404] Bescotti, "The Collective Security Treaty Organisation and Its Limits on Integration."
[405] Daren Butler, "History Overshadows Hope on Turkey's Armenian Border," *Reuters*, April 22, 2009; Federica Fanuli, "The Complicated Relationship between Armenia and Turkey," *Mediterranean Affairs*, May 7, 2015.
[406] Albert Hayrapetyan, "Why the Collective Security Treaty Organization Is a Pale Replica of Nato," *Russia Direct*, September 8, 2016.
[407] Dadan Upadhyay, "Nato Versus Csto: The Clash between Competing Military Alliances," *Russia & India Report*, January 11, 2012.

my theory predicts that a nuclear patron will adopt a "forward conventional deployment" strategy. Indeed, Russia has been adopting the predicted strategy since 1992. In addition to a textual version of conventional security commitment, Moscow has been deploying quick reaction troops in front areas of the frontline states, sharing borderlines with NATO countries. It is known that Russian troops are stationed in Armenia (about 5,000 troops),[408] Belarus (850 troops),[409] and Georgia (3,000-7,600 troops).[410] Furthermore, most of them are located in forward areas from which the distance to the borderlines is shorter than or the same as the distance from capitals of the clients to the borderlines—Armenia (Yerevan and Gyumri), Belarus (Baranovichi and Vileyka), and Georgia (Tskhinvali).[411] There is no evidence that Russia once provided or now provides a nuclear guarantee to its clients. Thus, there are no nuclear assets dedicated for the security of clients from a NATO threat.

To conclude, this case supports my theory.

Russian Extended Deterrence to Turkmenistan (1992-2002 (O))

Before the collapse of the Soviet Union, Turkmenistan (also known as Turkmen Soviet Socialist Republic) was one of the member republics of the Soviet Union. Unlike other former Soviet republics, such as Armenia, Belarus, Kazakhstan, Kyrgyzstan, and Tajikistan, Turkmenistan declined to join the Collective Security Treaty Organization (CSTO)—a Russia-led multilateral security alliance. Instead, Turkmenistan signed a distinct bilateral *Friendship and Cooperation Treaty* with Russia on July 31, 1992 (ATOP ID: 4300). Article 3 of the treaty establishes Russia's obligation to protect Turkmenistan in the event of external attack on the

[408] AP and Reuters, "Medvedev Secures Long-Term Foothold in Armenia," *The Moscow Times*, August 22, 2010.
[409] Margarete Klein, "Russia's Military Capabilities: "Great Power" Ambitions and Reality," in *SWP Research Paper*, ed. Stiftung Wissenschaft und Politik (Germany, Berlin: German Institute for International and Security Affairs, 2009), p. 20, Table. 6.
[410] Ibid.
[411] Ibid.

client as follows:

> The Parties will cooperate in ensuring secure defense for the Parties and protecting international peace and security. They express their readiness to maintain a common military-strategic space under joint command, and immediately resolve all relevant practical matters. Parties … will cooperate in maintaining a common defense policy based on previously agreed military doctrines.[412]

The limited accessibility to Russian materials about this relatively recent case makes it hard to discern how Russian leaders viewed Turkmenistan's security conditions from assurance and deterrence aspects. Therefore, I surmise Moscow's plausible assessments relying on available secondary sources.

First, on the assurance front, it is reasonable to assume that Russia's threat perception was low in the early 1990s. Turkmenistan did not confront any serious external threat that could jeopardize its survival at the time. Rather, as some observers pointed out, Turkmenistan was exposed to a potential danger of governmental degradation in its border areas near Afghanistan. In the case of the growing presence of Afghan insurgent groups, such as the Taliban, Ashgabat could face a threat from them "as it would not necessarily respect current international borders" and would try to destabilize Turkmenistan's state authority in the peripheral areas by infiltrating guerillas and militants there.[413]

Going further, there was some risk that Afghan might attempt to annex Turkmenistan's strategic locations near the 462-mile border with Afghanistan. In this regard, a study delineates the hypothetical scenario of a territorial dispute in which Afghans launch an attack to "take over the water management facilities in Turkmenistan and thereby shift the water resources away from the Amu Darya River [a river that demarcates Turkmenistan and Afghanistan] and

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[412] ATOP Dataset Coding Sheet, ATOP ID: 4300.

[413] Jan Šír and Slavomír Horák, "Turkmenistan's Afghan Border Conundrum," in *The Regional Security Puzzle around Afghanistan Bordering Practices in Central Asia and Beyond Helena*, ed. Helena Rytövuori-Apunen (Opladen: Barbara Budrich Publishers, 2016), 125.

the main Garagum canal."[414] Indeed, Afghans repeatedly made territorial incursions into the client's border areas. Consequently, limited armed clashes and fire exchanges occurred along the Afghan-Turkmenistan border.[415] In response, Turkmenistan preemptively captured islands on the Amu Darya river, which were traditionally used by local Afghan Turkmens.[416] The client's government imprisoned Afghans who crossed the border.[417] Going further, Turkmenistan gradually strengthened its border guards and reinforced border fortifications against Afghanistan.[418]

All in all, Afghanistan's attempts at territorial annexation and/or governmental degradation against Turkmenistan have been regarded as the source of the outbreak of hostilities between the two states. Given these situations, it would be reasonable to surmise that Russia thought the client was faced with a *non-existential* threat from Afghanistan. In short, Russia was likely to believe that an Afghan threat was not serious enough to jeopardize the client's survival.

Next, on the deterrence front, secondary materials suggest that Russia's assessment of Turkmenistan's self-reliant deterrence capabilities vis-à-vis Afghanistan was positive. In other words, Moscow was likely to discount the possibility of the Afghans' quick victory over the client should war occur. In addition, the military equipment of Afghanistan as of 1992 shows that it did not yet possess sufficient mobile warfare capabilities vis-à-vis Turkmenistan to quickly overrun. On balance, despite its quantitative superiority, Afghanistan was inferior to the client qualitatively in the early- and the late-1990s (see Table A-10 below).

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414 Ibid., 125.
415 For example, see, Qishloq Ovozi, "Turkmenistan's New Afghan Border Policy," *Radio Free Europe Liberty*, October 10, 2014; AsiaNews, "Turkmenistan might close Afghan border to stop the Islamic State," *AsiaNews*, March 16, 2015;
416 Šír and Horák, "Turkmenistan's Afghan Border Conundrum," 126.
417 Qishloq Ovozi, "Local Hopes Raised After Turkmen-Afghan Border Meeting," *Radio Free Europe Liberty*, May 5, 2014.
418 AsiaNews, "Turkmenistan might close Afghan border to stop the Islamic State;" Šír and Horák, "Turkmenistan's Afghan Border Conundrum," 109-110; AsiaNews, "Turkmenistan might close Afghan border to stop the Islamic State."

	MBT	AIFV	APC	MRL	MOR	FGA/FTR	ARMED HEL
Turkmenistan	570 570 T-72	612 156 BMP-1, 405 BMP-2, 51 BRM	728 BTR-60/-70/-80	114 BM-21, 9P140	73	89 (Plus 218 in store) MiG-29, MiG-29U, Su-17/-25	0
Afghanistan	870 700 T-54 170 T-62	550 550 BMP-1/-2	1,100 BTR-40/-60/-70/-80/-152	185 BM-21, BM-14, 9P140	1000+	110 MiG-23, MiG-21F, Su-7/-17/-22	80 25 Mi-8 35 Mi-17 20 Mi-25

Table A-10. Military Balance between Turkmenistan and Afghanistan (around 1992)
Source: International Institute for Strategic Studies, "Central and South Asia," in *The Military Balance: 1997/98* (London: Routledge, 1997), 145-63.
Notes: * The information on Afghanistan represents "weapons known to be in the country in April 1992 (p. 151)." Since then, the data on Afghanistan is unknown, and therefore, unavailable in the late-1990s volumes of *The Military Balance*. The information on Turkmenistan represents military equipment it possessed as of 1997. I will replace the 1997 data with the 1992 version later for a more fair comparison.
**AIFV: Armored Infantry Fighting Vehicle, APC: Armored Personnel Carrier, ARMED HEL: Armored Helicopter, MBT: Main Battle Tank, MOR: Mortar, MRL: Multi-Rocket Launcher, FGA: Fighter Ground Attack, FTR: Fighter.

Against the backdrop, in early 1995, a spokesman at the Turkmen embassy in Moscow said: "We have our own army and it is large enough to defend our country."[419] In addition, a combat-force-ratio in the Afghan-Turkmenistan dyad is estimated at 0.25:1 as of 1992—thus, lower than the 3-to-1 ratio. Taken together, Russian leaders would have downplayed a potential risk of Afghanistan's quick victory in a limited war with Turkmenistan.

To summarize, this case is characterized by the combination of "non-existential" threat and the "low" likelihood of the enemy's quick victory. My theory predicts that Russia would adopt a "conventional defense pact" strategy in this setting which, indeed, Russia did adopt. In terms of force employment, Russia did not deploy sizable conventional troops in forward areas of the client's territory—further east of Ashgabat. Shortly after signing the bilateral pact in 1992,

[419] Steven Gutterman, "Russia to pull troops from Turkmenistan," *United Press International*, April 14, 1995.

Moscow instead decided to pull its large troops stationing in Turkmenistan—troops deployed to the former Soviet republic during the Cold War era. The reason for the withdrawal decision was the judgment that Turkmenistan had raised up "its own army which is capable of defending the country."[420] As a consequence, starting in 1995, the Russian units were gradually withdrawn and the last Russian troops left the client's territory by the end of 2000.[421] On the nuclear front, Russia did not deploy its nuclear forces to Turkmenistan after 1992.[422] In addition, there is no evidence of a Russian nuclear guarantee extended to the client in a verbal or textual manner. In April 2002, the 1992 pact was replaced by a new treaty (ATOP ID: 5000), which dropped Russia's security commitment to Turkmenistan.[423]

To conclude, the Turkmenistan case supports my theory.

[420] Minorities at Risk Project, "Chronology for Russians in Turkmenistan," 2004, https://www.refworld.org/docid/469f38eac.html.
[421] To admit, until 1994 (for the first two years of this Turkmenistan case), Russia maintained about 15,000 troops in the client's territory. Beginning in 1995, however, they were fully withdrawn from there over the next five years. See, globalsecurity.org, "Separate Combined-Arms Army of Turkmenistan," https://www.globalsecurity.org/military/world/russia/ogrv-turkmenistan.htm.
[422] Fuhrmann and Sechser, "Appendices for "Signaling Alliance Commitments: Hand-Tying and Sunk Costs in Extended Nuclear Deterrence.""
[423] The 2002 pact is categorized as both a "nonaggression pact" and a "consultation pact." Unlike the 1992 pact, however, the 2002 new pact is not coded as a "defense pact." See, ATOP Dataset Coding Sheet, "ATOP ID: 5000."