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# Science-Based Scenario Design

A Proposed Method to Support Political-Strategic  
Analysis

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## Preface

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This paper proposes a methodology for improving scenario-based analysis to support political-strategic decisionmaking for defense planning purposes. It proposes the method of incorporating social scientific findings regarding the causes of war and conflict escalation into analytic assumptions, a process this paper calls “science-based structured scenarios.” The paper provides a sample of how this method could be used.

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## Summary

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Among the most important types of decisions that confront decisionmakers and defense planners are those that commit the nation to conflict, calibrate the use of force to achieve overall strategic goals, and de-escalate a crisis situation in a manner consistent with political objectives. Decisions that authorize a dramatic initiation or escalation of force can carry profound implications for a nation's economy, strategic situation, or survival. Because these sorts of strategic decisions respond to both military and nonmilitary considerations, analysis to support such decisions should adequately represent both military and nonmilitary factors. However, in contrast to the well-developed doctrine on the analysis of military factors, guidance on how to realistically analyze nonmilitary factors remains largely absent or poorly articulated in defense writings. Scenario-based analysis remains the most developed and useful tool to support such decisionmaking, but the lack of guidance on how to incorporate nonmilitary factors has often resulted in scenarios that suffer from problems of opaque methodology, unsupported assumptions, and implausibility.

To help meet this challenge, this study does four things. First, we distinguish between political-strategic and military decisions in the work of defense planning. We argue that many of the questions regarding the onset of conflict, management of crises, and escalation or de-escalation of conflict are primarily political-strategic in nature and thus have analytic requirements distinctly different from those for military decisions. Second, we explain why the current practice of employing scenario analysis to support political-strategic decisions is problematic. Current doctrine articulates a rigorous methodology to support military decisions, but guidance on how to develop assumptions and address nonmilitary factors remains largely undeveloped or absent. Accordingly, scenarios based on existing methods suffer problems of opaque methodology, unfounded assumptions, and implausibility when applied to political-strategic concerns. These defects not only impair efforts to develop more rigorous analysis to support political-strategic decisions, but also they can impede analysis to support military decisions. Third, we argue that recent findings in social science regarding variables related to crises and wars offer the potential to remedy these defects and aid the development of more rigorous, transparent, and politically realistic scenarios. We survey some of these key findings regarding both the structural, or underlying, factors and the proximate, or immediate, factors responsible for militarized crisis and conflict. Finally, we show how scenario designers can incorporate these factors into more holistic, rigorous, and politically realistic assumptions, a process that we call "science-based structured scenarios." In this method, the analyst develops a template of relevant factors that correlate with conflict onset and escalation and that is based on social science findings. The analyst then tailors the template according to the specific region and type of conflict of interest. A scenario can then be built with assumptions whose logic and reasoning

are supported by the factors listed in the template. We show how these science-based structured scenarios can be tailored to flexibly suit the specific needs of defense planners. To illustrate how this methodology might be applied, we provide an example centered on a hypothetical China-Taiwan conflict.

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## Abbreviations

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BRI	Belt and Road Initiative
CBA	capabilities-based analysis
DOD	Department of Defense
DPS	Defense Planning Scenarios
ECOA	enemy course of action
GDP	gross domestic product
IDA	Institute for Defense Analysis
PLA	People's Liberation Army
PPBE	planning, programming, budgeting, and execution process
SSI	Strategic Studies Institute



## Introduction

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How do major conflicts start and how can we tell when a crisis might escalate to a military confrontation? These questions have long confronted U.S. policymakers, but they take on new urgency as great power competition intensifies with China and Russia and flash points fester across the Middle East and elsewhere.<sup>1</sup> Understanding the dynamics of crisis escalation and conflict occurrence are necessary to help intelligence analysts and policymakers understand whether particular crises are more or less likely to escalate and how U.S. actions, such as the deployment of additional forces to a crisis, might ameliorate or exacerbate those dynamics. In addition, understanding the underlying causes of crisis escalation and military conflict, and how those dynamics are affected by emergent geopolitical trends, can help defense planners to more effectively anticipate and prepare for potential contingencies.

The challenge of anticipating a military contingency is further compounded by the increasing reliance on ambiguous forms of interstate conflict favored by states like China and Russia that blur the line between military and nonmilitary actions. These tactics, labeled “gray zone” or “hybrid warfare,” often feature state-backed forces who engage in coercive or violent actions but below a threshold that typically triggers U.S. military combat operations on behalf of an ally.<sup>2</sup> These tactics allow adversaries to incrementally advance state aims while minimizing the risks of conflict. They also offer the advantage of rapid fielding relevant capabilities with minimal warning to U.S. forces, requiring the United States to act quickly in ambiguous circumstances. Moreover, these tactics, while effective, invariably carry a risk of sparking militarized crisis and subsequently, the potential for escalation to conventional military conflict.

In some cases, hybrid warfare operations could be deliberately planned as when “snap exercises” by Russia disguise movements of military forces.<sup>3</sup> If the United States is ill prepared to respond in such cases, there is a possibility that U.S. and Allied forces could be surprised and suffer losses.<sup>4</sup> Similarly, the development of artificial islands in the South China Sea effectively masked, until recently, China’s military intentions to gain greater control of the mari-

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<sup>1</sup> U.S. Department of Defense, *Summary of the 2018 National Defense Strategy of the United States of America*, Washington, D.C.: U.S. Department of Defense, 2018.

<sup>2</sup> John Chambers, “Countering Gray Zone Hybrid Threats,” Modern War Institute, October 18, 2016.

<sup>3</sup> Dave Johnson, “ZAPAD 2017 and Euro-Atlantic Security,” *NATO Review Magazine*, December 14, 2017.

<sup>4</sup> David A. Shlapak and Michael W. Johnson, *Reinforcing Deterrence on NATO’s Eastern Flank: Wargaming the Defense of the Baltics*, Santa Monica, Calif.: RAND Corporation, RR-1253-A, 2016; David A. Shlapak, *The Russian Challenge*, Santa Monica, Calif.: RAND Corporation, PE-250-A, 2018.

time region through a *fait accompli*.<sup>5</sup> These actions threaten U.S. allies and raise the risk that a crisis could escalate into a military engagement that could draw in U.S. forces. The challenge of responding to these threats is compounded by constrained defense resources that have led to reductions in deployed forces abroad. These realities have increased the imperative to accurately anticipate and effectively respond to the threat of conflict in a timely manner.

In this report, we aim to achieve four things. First, we distinguish between political-strategic and military decisions in the work of defense planning. We argue that many of the questions regarding the onset of conflict, management of crises, and escalation or de-escalation of conflict are primarily political-strategic in nature and thus have analytic requirements distinctly different from those for military decisions. Second, we explain why the current practice of employing scenarios to support political-strategic decisions is problematic. Current doctrine articulates a rigorous methodology to support military decisions, but guidance on how to develop assumptions and address nonmilitary factors remains largely undeveloped or absent. Accordingly, existing methods favor the development of scenarios that feature problems of opaque methodology, unfounded assumptions, and implausibility when applied to political-strategic concerns. These defects not only impair efforts to develop more rigorous analysis to support political-strategic decisions, but they can also impede analysis to support military decisions. Third, we argue that recent findings in social science regarding variables related to crises and conflicts offer the potential to remedy these defects and aid the development of more rigorous, transparent, and realistic scenarios. We survey some of these key, albeit tentative, findings regarding both the structural, or underlying, factors, and the proximate, or immediate, factors responsible for militarized crisis and conflict. Finally, we show how scenario designers can incorporate these factors into more holistic, rigorous, and politically realistic assumptions, a process that we call “science-based structured scenarios.” We also show how these science-based structured scenarios can be tailored to flexibly suit the specific needs of defense planners. To illustrate how this methodology might be applied, we provide an example centered on a hypothetical China-Taiwan conflict.

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<sup>5</sup> Hannah Beech, “China’s Sea Control Is a Done Deal ‘Short of War with the U.S.’,” *New York Times*, September 20, 2018; Derek Watkins, “What China Has Been Building in the South China Sea,” *New York Times*, October 27, 2015.



## Distinguishing Between Military and Political-Strategic Decisions in Defense Planning

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A starting point for planning for military crises and conflicts lies in recognizing that these phenomena carry both political and military dimensions. The observation that politics is inextricably intertwined with military issues in war is an old and widely accepted one. Clausewitz famously observed that “war is a continuation of politics by other means.” Indeed, scholarship has repeatedly confirmed that the most essential factors that drive decisions of war, peace, and deterrence are fundamentally political in nature. In his classic studies on extended deterrence, for example, scholar Paul Huth concluded that “non-military considerations were more likely to have been critical in tipping the decision for or against escalation under conditions of greater military risk.”<sup>1</sup> Yet this basic truth can sometimes be lost in analysis to support defense planning. Indeed, defense planners often focus too heavily on the military factors of a potential crisis at the expense of other salient political and strategic factors. Writing for the Army’s Strategic Studies Institute (SSI), historian Colin Gray noted, “A common weakness among defense professionals is an undue reluctance to accept the fact of the sovereign authority of politics.”<sup>2</sup>

State leaders and decisionmakers tend to balance multiple military, political, economic, and other considerations in managing defense-related affairs. In a crisis or conflict, they make some decisions based primarily on these broader nonmilitary strategic considerations while in tactical or operational situations, military concerns may be more imperative. To be sure, decisions in conflict at any level almost invariably require attention to both military and non-military factors. However, at the risk of oversimplification, a distinction can be made between these two types of decisions and the type of information required to support them. For the purposes of this paper, *political-strategic decisions* may be understood as those decisions that evaluate and resolve issues in a crisis or conflict that are primarily driven by political and strategic factors. For these decisions, key considerations include economic, political, and other factors. Individuals making political-strategic decisions are concerned with how to realize goals while also managing the risks and consequences to the entire nation. In political-strategic decisions, military means may or may not be prioritized for realizing strategic goals, even if a situation in question involves military assets. Similarly, the risks and consequences of political-strategic decisions touch on all dimensions of a nation’s security, including the economy, domestic stability, popular support, and alliances, among others.

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<sup>1</sup> Paul K. Huth, *Extended Deterrence and the Prevention of War*, New Haven, Conn.: Yale University Press, 1988b, pp. 117–120.

<sup>2</sup> Colin S. Gray, *Defense Planning for National Security: Navigation Aids for the Mystery Tour*, Carlisle, Pa.: Strategic Studies Institute (SSI), U.S. Army War College, March 2014, p. 37.

Among the most important types of defense-related political-strategic decisions are those to commit the nation to conflict, to calibrate escalation to balance overall risks to strategic goals, and to de-escalate a crisis situation in a manner consistent with strategic goals. In deciding whether to commit the nation to conflict, for example, the decisionmaker must weigh U.S. strategic goals in the situation, the potential impact on the economy, and the level of political support as well as the military feasibility of proposed courses of action. Decisions that authorize a dramatic initiation or escalation of force can carry profound implications for the economy, the broader strategic situation, or the political survival of a nation. Accordingly, these can be characterized as political-strategic as well. An example could be Japan's fateful resolution to initiate an attack at Pearl Harbor, or the U.S. decision to employ nuclear weapons against Japan in late 1945. In these situations, decisionmakers had to consider a broad range of factors, such as the risks of inaction to the nation's strategic goals, economic considerations, reputational costs, levels of popular support for the war effort, and others. Military crises, by nature, are destabilized situations that have resolutions with strong political and strategic connotations, and these often require diplomatic and political action to resolve. For that reason, many decisions on how to manage and resolve militarized crises can be characterized as political-strategic. The decisions that resolved the military standoff of the Cuban Missile Crisis, for example, were primarily political and diplomatic in nature, yet they profoundly shaped the trajectory of U.S.-Soviet rivalry and reverberated in strategic thought and U.S. involvement in military crises and conflicts for decades to come.<sup>3</sup>

Political-strategic decisions may be distinguished from military decisions (see Table 2.1). As used in this paper, *military decisions* are those decisions that evaluate and resolve issues primarily related to program development, military mobilization, and the employment of military forces at the strategic, operational, and tactical levels. Examples of military decisions include those to develop defense budgets; to develop weapons and platforms; to train and equip forces; to mobilize assets; and to execute operations, actions, and activities in peacetime or combat. Military decisions rely primarily on information on these military factors. However, even for military decisions, nonmilitary factors can be important. For example, considerations on the operational employment of forces may depend on access to bases in allied countries. Whether those host nations provide access in the event of a crisis depends on factors that are political and strategic and that are not just military.

In sum, the distinction between political-strategic and military decisions represents an oversimplification, since there are invariably important political and strategic factors involved with most military decisions, just as there are generally critical military considerations involved in most political-strategic decisions that are of interest to defense planners. Nevertheless, the distinction can help facilitate analysis in the types of information required to address different sets of issues (see Table 2.1).

## Analyzing Nonmilitary Factors

Because political-strategic decisionmaking responds to both military and nonmilitary considerations, analysis to support such decisions must adequately represent both military and nonmilitary factors. For example, an exercise to explore political-strategic decisions to discourage

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<sup>3</sup> Michael Dobbs, *One Minute to Midnight*, New York: Vintage Press, 2009.

**Table 2.1**  
**Military and Political-Strategic Decisions**

	Military Decision	Political-Strategic Decision
Information needed for decision type	The evaluation and resolution of issues related to the development and operation of military force; these include defense budget, program development, operational plans, posture, training and the operational and tactical employment of forces	The evaluation and resolution of issues related to the authorization of the use of force or to the overall management of crises and conflicts; these include decisions to initiate or terminate military operations and to escalate or de-escalate the use of force in a crisis or a conflict
Detailed, accurate depiction of relevant military factors	Higher priority	Lower priority
Detailed, realistic depiction of relevant nonmilitary factors	Lower priority	Higher priority
Sample analytic support	Planning scenarios that present “worst case” or “most likely” course of action of an enemy’s military	Scenarios that realistically simulate conditions that would shape strategic decisionmaking in crisis and conflict
Key sources of scenario information	Intelligence on enemy military capabilities, doctrine; “reasonable” assumptions suffice for road to war	Broad expertise on relevant countries; accurate representations of key structural proximate factors based on social science

a country like China from compelling Taiwan’s unification in a crisis may find that an accurate representation of all the military and nonmilitary factors that may influence the decisions made by Chinese and Taiwanese leaders is valuable. By contrast, military decisionmaking that primarily considers military factors can largely dispense with detailed analysis of nonmilitary factors. In the China-Taiwan case cited previously, decisions on military topics such as force planning would be better served by a “worst case” analysis that outlines in detail how a most stressing military attack might unfold, regardless of its likelihood.

Defense documents do not generally distinguish problems that require political-strategic decisions from those that require military decisions. For example, the U.S. Department of Defense (DOD) had until recently employed a formalized joint process named Support for Strategic Analysis (SSA) to “support deliberations by DOD senior leadership on strategy and planning, programming, budgeting, and execution (PPBES) matters, including force sizing, shaping and capability development.”<sup>4</sup> This description states that “strategic analysis” should support “strategy” that ambiguously could include the types of political-strategic decisions mentioned above as well as military topics at a broader, national-strategic level such as those to support the global distribution of military forces. Yet the description also states that SSA should support PPBES, which are military decisions regarding force development and defense spending.

Given the military’s responsibilities, it should be of no surprise to find that most analysis to support defense planning tends to emphasize military factors and downplay or pay scant attention to nonmilitary ones. For example, the U.S. military’s joint planning process calls for analysts to provide an estimate of an “enemy course of action” (ECOA) to inform the planning

<sup>4</sup> U.S. Department of Defense, “Department of Defense Directive Number 8260.05, Support for Strategic Analysis (SSA),” Washington, D.C.: U.S. Department of Defense, July 7, 2011, p. 1.

process. To develop an ECOA, analysts typically note the type and variety of military forces available to the adversary and the adversary's doctrine to use those assets. The analyst then proposes estimates of how those forces may be employed operationally, against which the planner can then prepare a course of action. This approach is well suited to the needs of developing an operational plan. The development of "most likely case" and "worse case" ECOA analysis, encoded in U.S. doctrine, can also help inform the work of defense acquisition and budget managers who seek to estimate force planning needs. For these purposes, military analysis may be sufficient, and consideration of nonmilitary factors can be assumed with little harm to the larger analytic endeavor.

## Weak Guidance on Political-Strategic Decisions for Scenario Development

In contrast to the well-developed doctrine on analysis to support military decisionmaking, guidance on how to realistically analyze nonmilitary factors remains largely absent or poorly articulated in defense writings. A key reason for this gap, beyond the obvious fact that the military is primarily responsible for military decisions, is that the nonmilitary factors that attend any hypothetical future crisis or conflict situation are unavoidably speculative. It is impossible to know the details of a situation or flash point in the future. As a study by SSI noted, "The problem for defense planning that is beyond resolution is the scientifically certain fact that we have no data from the future about the future."<sup>5</sup>

Scenario development remains perhaps the most well-developed analytic technique for visually constructing the hypothetical conditions that might give rise to crisis or conflict. A scenario is a fictitious, yet plausible sequence of events set in the real world, three to 20 years in the future. A scenario may cover any type of mission that involves the use of military forces. This can range from peacetime noncombatant evacuation and counterterrorism to major armed conflicts. The purpose of scenarios is to provide senior decisionmakers with a mechanism that can produce impartial, evidence-based advice on a range of critical issues. Scenarios are widely used as a basis for conducting studies and analysis to support senior decisionmakers.<sup>6</sup>

In the DOD, scenarios are mainly used to support military decisionmaking. According to a U.S. Army training manual, a scenario is a tool that supports the "evaluation of Army concepts, capability requirements, and solutions prioritized through capabilities-based assessments (CBAs), including doctrine, organizations, training, materiel, leadership and education, personnel, and facilities (DOTMLPF), to produce resource-informed, integration-focused, and outcome-based solutions."<sup>7</sup>

The Army's interest in scenarios to support military decisionmaking is hardly surprising, given the Army's mission. But DOD decisionmaking at the strategic level appears to follow a similar practice. For example, the Defense Planning Scenarios (DPS) support planning decisions for the DOD. These typically involve potential conflict situations that might involve

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<sup>5</sup> Gray, 2014, p. 1.

<sup>6</sup> Martin Neill, Wade P. Hinkle, and Gary Morgan, *Scenarios—International Best Practice: An Analysis of Their Use by the United States, United Kingdom, and the Republic of Korea*, Alexandria, Va.: Institute for Defense Analysis, February 2016, p. 1.

<sup>7</sup> U.S. Department of the Army, *United States Army Training and Doctrine Command Standard Scenarios for Capabilities Development*, Fort Eustis, Va.: Department of the Army, U.S. Army, TRADOC 71-4, February 12, 2014.

U.S. military forces. Among myriad characteristics, the DPS set boundaries for scenario variables, provide a road to war, and describe strategic-level concepts of operations (CONOPS). They further group variables into sets, including most stressful excursions, least stressful excursions, and a base case. Descriptions of the DPS suggest that they are envisioned as tools to support military decisionmaking at the department level.<sup>8</sup> However, as a cabinet-level entity, the DOD's responsibilities also include political-strategic decisions. For example, the U.S. Secretary of Defense serves on the National Security Staff and is expected to provide recommendations on political and strategic decisions to the U.S. President on the initiation and escalation of conflict. The staff of the DOD would be well served to have prepared careful analysis to support such important decisions, perhaps through use of DPS. Well-designed DPS could help the DOD staff carry out rigorous and well-thought analysis and planning to support such strategic decisionmaking.

The overwhelming focus on military decisionmaking throughout the DOD has led the department to develop a robust and rigorous approach to analyzing military factors to support such decisions. However, the analysis of nonmilitary factors to support political-strategic decisions has received far less attention. To address nonmilitary factors, most official documents and scholarly writings simply recommend that these be drafted to meet the low threshold of "plausibility." An Institute for Defense Analysis (IDA) study on scenarios reflected current wisdom when it advised that the hypothetical sequence of events which leads to a military response (often involving the scripting of numerous nonmilitary developments and which is colloquially known as the "road to war") should be "logical, sensible, and plausible." The IDA study identified five key attributes that it described as the "standard by which a scenario should be developed." Among these, it cited "reasonableness," defined as "plausible" and "feasible," which should apply to both military and nonmilitary assumptions.<sup>9</sup>

For purposes of support to political-strategic decisionmaking, failure to specify what precisely makes the analysis of nonmilitary factors plausible is a consistent weakness in these writings. For example, an Army doctrine publication recommended that any scenario need only be "reasonable" to serve planning needs. It stated analysts should develop a "plausible" scenario for the road to war, without elaboration of what might make the scenario plausible.<sup>10</sup>

Again, in part this reflects the reality that, for most military decisions, nonmilitary factors may appear to matter little. If the purpose of political and strategic analysis is to provide a backdrop for the ECOA, then plausibility should in most cases suffice as a standard. The problem may arise, however, when analysts attempt to repurpose a scenario designed to support military decisionmaking to serve political and strategic decisionmaking. In the latter case, the assumptions and analysis of relevant nonmilitary factors will become extremely important and thus merit far more scrutiny. Weaknesses in assumptions, logic, or analysis will be exposed and if serious enough, cast doubt on any conclusions drawn from analysis involving the scenarios. Even in some military decisions, nonmilitary factors could be important. For example, the potential level of support from allies and partners could greatly affect operational and tactical military decisions, but the likely level of support in a contingency will depend heavily on assessments by those allies and partners of both nonmilitary as well as military factors.

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<sup>8</sup> U.S. Department of the Army, 2014.

<sup>9</sup> Neill, Hinkle, and Morgan, 2016, p. 7.

<sup>10</sup> U.S. Department of the Army, 2014.

The challenge of articulating nonmilitary assumptions for a future event that may never happen deserves emphasis. The very act of envisioning a hypothetical situation of crisis and conflict requires the imaginative visualization of a world that may radically differ from the current status quo. The challenge is compounded the further the hypothetical world differs from our own. For example, if the current situation features a peacetime, largely stable competition with a potential adversary country, then a scenario that seeks to explore peacetime shaping options or ways to manage a crisis with a low risk of escalation will only require slight deviations in its assumptions from the status quo. By contrast, a scenario that seeks to explore issues of severe military crisis with a high risk of escalation, or the onset of global, systemic war with the same peacetime competition, will require a more thorough reworking of assumptions to sustain its plausibility. Many aspects of the peacetime situation will almost certainly have disappeared in a world of intense conflict.

Analysts require some sort of guide to help them sort through the factors that would likely persist from a peacetime to a conflict situation and those that would change or that do not exist today but would very likely emerge as conflict neared. The challenge of visualizing such a dramatically different situation and the endless possibilities that a hypothetical situation may harbor quickly reveals the challenges of using “reasonable” as the standard. What may seem reasonable in peacetime may make no sense in a conflict situation and vice versa. Thus, “reasonable” assumptions can be completely contradictory, depending on whether they pertain to peacetime or wartime situations. For example, actions to mobilize popular sentiment against another country may make little sense in periods of stable peace but become unavoidable in times of war. What is reasonable thus is likely to change depending on the situation.

The challenge of visualizing large-scale conflict scenarios with a potential adversary with whom the United States currently maintains stable, if uneasy, peaceful relations in particular raises the risk of imagination running wild. Because the standard of “reasonability” is so ill-defined, there is a high risk that the scenario can become unmoored from reality. For example, a scenario could depict a sudden Russian attack on a U.S. space asset as sufficient to drive U.S.-Russia relations from a peacetime to wartime footing. Such a rapid transformation in response to a single incident may strain credibility with some observers, yet others may defend it as a “reasonable” and “plausible” pathway to conflict. Since people may differ on what constitutes a “reasonable” scenario, there is no simple way to determine whose view should prevail. This raises the related problem of equifinality. With no intellectual anchor to rule implausible from plausible scenarios, the variability in potential paths to conflict can quickly grow to infinity, undermining confidence in the ability to anticipate and prepare for conflict. For example, an analyst can posit a very specific path to conflict between Russia and the United States that depends in part on decisions by leaders in Baltic countries. But according to the logic of “reasonability,” there is no inherent reason why a Baltic crisis should be privileged over other possible paths to conflict. Any analyst can easily devise innumerable paths to conflict between Russia and the United States.

The lack of evidence to support any assumption in a scenario also undermines confidence in the importance of any of the details in the scenario, such as the developments in a typical “road to war.” Since each detail depends on nothing more than an analyst’s judgment of its plausibility, there is no way to assess the importance of any detail. In short, without a way to judge the credibility of any scenario and the details contained therein, the defense planner is likely to view the nonmilitary aspects of any defense scenario as lacking validity and downplay

their importance, exacerbating the problems of a lack of realism, implausibility, and opaque nonmilitary assumptions.

If “reasonability” is too low and ambiguous of a standard on which to base assumptions for a conflict scenario, is there an alternative? Some defense documents and writings recommend assumptions be based on intelligence as much as possible. The study by IDA recommended the “sequence of events leading to military intervention” be “based on intelligence.” It also recommended “any and all assumptions about an adversary” be “based on intelligence,” although it admitted that, when a scenario is set further in the future, it becomes “harder to ensure credibility.”<sup>11</sup>

The appeal of national intelligence as a source for scenario assumptions is obvious. Grounding scenarios on intelligence quickly narrows the range of possible paths to conflict. It can provide evidence-backed judgments regarding adversary threat perceptions, military capabilities, potential courses of action, and salient issues that adversaries appear motivated to fight over. Scenarios that rely on intelligence for assumptions can thus offer a degree of rigor unavailable to those based purely on speculation, no matter how “reasonable.”

Relying on intelligence to develop assumptions is not without its own drawbacks, however. Intelligence is not infallible. It is possible for collectors to gather inaccurate or bad intelligence. Intelligence also raises the problem of distribution, given the need to protect sources and methods. More problematic for the purposes of scenario development is that available intelligence about the imagined “sequence of events” leading to military conflict is likely to be too scarce to be of much use, especially if the anticipated conflict appears unlikely at the moment. In sum, intelligence can illuminate threat perceptions, intentions, and plans by the enemy for a contingency. It can illuminate the role of various units, weapons systems, or doctrine that might be used to wage war. But intelligence is less likely to illuminate likely adversary political and strategic behavior for situations that do not exist. Decisions on how to realize goals in the midst of a hypothetical crisis or conflict will be highly context-dependent and therefore unknowable to the intelligence collector and very likely to the adversary decisionmaker himself.

In sum, analysts who seek to realistically depict the nonmilitary factors of a scenario to support political-strategic decisionmaking face a daunting challenge. Intelligence can be useful for developing assumptions about adversary military capabilities and plans for contingencies, but its inherent limitations will constrain its utility for assessing the nonmilitary factors relevant to a hypothetical situation that has not yet emerged. Relying on “reasonability” as a standard may solve the problem of enabling the analyst to richly elaborate assumptions regarding an adversary’s decisionmaking in a hypothetical conflict. However, the weak guidance and ill-defined standards regarding “reasonable” assumptions introduces problems of opaque methodology, questionable premises, infinite variability in potential paths to war, and implausibility, especially for imagined scenarios that differ dramatically from the status quo. Such concerns likely underpin the dissatisfaction on the part of at least some who have experienced defense-related scenarios.<sup>12</sup>

<sup>11</sup> Neill, Hinkle, and Morgan, 2016, p. 8.

<sup>12</sup> Paul K. Davis, *Capabilities for Joint Analysis in the Department of Defense*, Santa Monica, Calif.: RAND Corporation, RR-1469-OSD, 2016, p. xiii.





## A Way Forward: Science-Based Structured Scenarios

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With limitations ranging from too restrictive a standard of relying primarily on intelligence to too loose a standard of relying on “reasonable” assumptions, this study recommends a third path. The recommended approach calls for “bounded reason” in which assumptions are anchored on scientific findings regarding patterns of escalation and conflict. This approach builds on the insight that although crisis and conflict situations are variable, these situations frequently share patterns of events that can be studied, mastered, and anticipated. To quote Gray, history may not repeat itself, but “situations of concern to strategists endeavoring to conduct defense planning do recur and repeat generically over time.”<sup>1</sup>

Over the past few decades, the scientific study of the causes of war and drivers of crisis escalation have reached tentative, but important, breakthroughs. As John Vasquez, a top expert in the field observed, “The key observation about war and peace research over the last decade is that it evolved into a normal science.”<sup>2</sup> Some of the leading models of the causes of war imply a more or less complex process that spells out a sequence of steps or processes leading to war.<sup>3</sup> Unfortunately, few of these findings have been incorporated into defense scenario planning. As an example, one scholar noted that Western experts frequently maintain that arms buildups contribute to deterrence, despite a paucity of empirical evidence to back the claim.<sup>4</sup>

Social scientific research has identified two primary but interrelated drivers of conflict: *structural*, or underlying, and *proximate*, or immediate, causes. Structural drivers of conflict may be understood as the broader, systemic, economic, or societal level forces that increase the incentive for actors to use hostile military force to achieve their goals. These drivers could be at the global-systemic, regional-systemic, or dyadic (bilateral) levels. If the structural factors favor peaceful relations and cooperation, then decisionmakers will have a strong incentive to de-escalate any crisis in a peaceful manner. By contrast, structural factors that favor conflict will provide a built-in systemic bias for leaders in a crisis to favor more violent options in the event of a crisis. The nature of the structural factors therefore plays a critical role in shaping how actors perceive and respond to a crisis event. The same crisis event can result in opposing outcomes, depending on the nature of the structural factors leading up to the crisis.

Proximate drivers are the details involved in the immediate flash point or crisis situation. These include issues of miscalculations, misperceptions, and actions taken by leaders in

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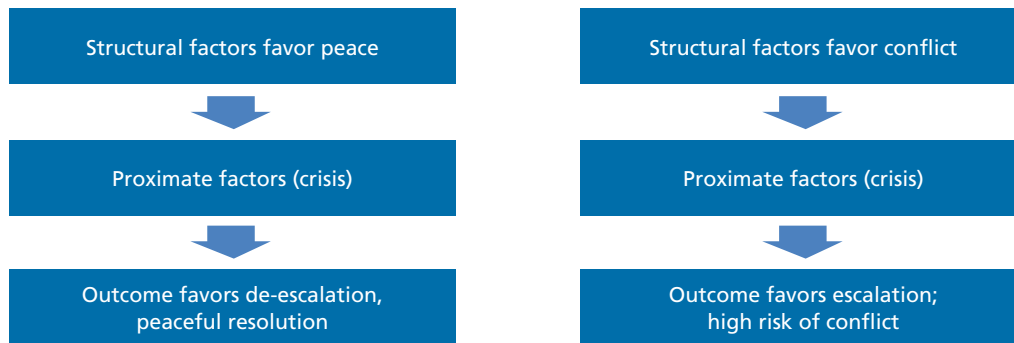
<sup>1</sup> Gray, 2014, p. 2.

<sup>2</sup> John A. Vasquez, ed., *What Do We Know About War*, 2nd ed., Lanham, Md.: Rowman and Littlefield, 2012, p. 272.

<sup>3</sup> Vasquez, 2012, p. 274.

<sup>4</sup> Susan G. Sample, “Arms Races,” in John A. Vasquez, ed., *What Do We Know About War*, 2nd ed., Lanham, Md.: Rowman and Littlefield, 2012, p. 111.

**Figure 3.1**  
**Structural and Proximate Factors Shape Crisis Outcomes and Escalation**



response to a crisis and the details of the crisis situation itself, such as the disposition of forces on hand.<sup>5</sup> The proximate causes of conflict are strongly influenced by how the structural factors favor de-escalation or escalation. If the structural factors collectively provide an incentive to decisionmakers to consider military force, then the proximate cause will similarly reflect a higher risk of rapid escalation. A more accurate representation of the political and strategic causes of conflict should account for both the structural and proximate causes of conflict. This point is represented in Figure 3.1.

### Structural Factors

In terms of “underlying” factors, one can conceive a nested series of levels that cumulatively weigh on one another and compound the incentives for decisionmakers. These levels include those at the systemic level (global or regional) and those at the level of an interactive, dyadic level. The latter includes the variety and intensity of disputes among rivals, threat perceptions, and patterns in past militarized disputes. Some factors can be observed at either the systemic or dyadic levels, such as evidence of alliance-building and arms-racing behavior. Structural factors play an especially important role in determining the duration and scale of conflict.

The following sections provide a sample of some of the tentative findings in social science that could be applicable to defense planning. Scholars continue to debate the relative importance of many of the factors, and more work is required to improve the precision of concepts and findings to more effectively support defense planning. Nevertheless, social scientists have begun to establish tentative correlations that could powerfully deepen and strengthen the quality of analysis to support political and strategic decisionmaking.

At the systemic level, considerable research has, for example, demonstrated that the relative distribution of power carries varying levels of risk of conflict. If the powers involved are minor powers, the “system” could be a regional one involving a few contiguous countries. But if major powers are involved, the system could extend to the global level, as in the case of great power transitions. In either case, some distributions of power favor stability, and others appear inherently unstable and more prone to conflict. Numerous theories, including balance

<sup>5</sup> Jack Levy and William R. Thompson, *Causes of War*, Chichester, U.K.: Wiley-Blackwell, 2010, p. 211.

of power, power transition, and long-cycle theory provide system-level explanations of why conflict could become more likely or not. These theories differ in their conclusions, but all agree that significant shifts in the relative power of states increases the likelihood of conflict, especially between major powers.<sup>6</sup>

Social science has also noted how the underlying source of dispute can matter greatly in affecting the potential for conflict. Disputes over territory are the most common and recurring causes of conflict. Sifting through databases on conflicts stretching hundreds of years, John Vasquez pioneered the argument that territorial disputes provided the primary cause of interstate conflict.<sup>7</sup> Vasquez argued out that territorial issues featured prominently in 85 percent of conflicts in the past 300 years and that war is quite unlikely unless there is a prior disagreement between states over territory.<sup>8</sup>

Since the early 2000s, however, the academic community has begun to question the primacy of territorial disputes in causing interstate conflict. Scholars now understand war to result from a broader array of complex and often interrelated causes. Analysts now posit two broad categories of drivers: (1) *Issues of territory and sovereignty*—what academics call “spatial” issues—remain common, especially among minor contiguous powers. Among major powers, however, the causes of conflict appear quite different. Major powers appear inclined to fight most often over (2) *issues of status, influence, and hierarchy* in a given order or system—also referred to as “positional” issues. Rasler and Thompson, two leading scholars of conflict studies, have noted that major powers do quarrel over territory, but they have a “marked propensity” for “competing over positional issues.” This is especially true of noncontiguous major powers that do not have any directly competing territorial claims.<sup>9</sup>

The finding that positional issues are a primary driver of conflict between major powers corresponds with a related finding: the importance of “strategic rivalry” as a critical engine of conflict. Strategic rivalry appears to be a critical ingredient for conflict escalation.<sup>10</sup> Brandon Valeriano describes rivalry as “a situation of long-standing, historical animosity between two entities with a high probability of serious conflict or crisis.” He noted that rivalries are highly prone to conflict. “During rivalry, relative positions matter, and rivals will fight about anything and everything.”<sup>11</sup> Strategic rivals have been found to disproportionately generate conflict. One study found that strategic rivals opposed each other in 58 of 75 wars (77.5 percent) since 1816. Since 1945, the correlation has been even more striking. Rivals have opposed each other in 21 of 23 (91.3 percent) wars. Major powers have shown an unusually high proclivity to engage in conflict. While a slight plurality of historic rivalries involving both minor and major powers have not gone to war, rivalries between major powers have shown the strongest

<sup>6</sup> Levy and Thompson, 2010, p. 50.

<sup>7</sup> Paul Seneses and John A. Vasquez, “A Unified Explanation of Territorial Conflict: Testing the Impact of Sampling Bias, 1912–1992,” *International Studies Quarterly*, Vol. 47, No. 2, June 2003, pp. 275–298.

<sup>8</sup> John Vasquez, *The War Puzzle*, Cambridge, U.K.: Cambridge University Press, 1993, Chapter 4.

<sup>9</sup> Karen Rasler and William R. Thompson, “Explaining Rivalry Escalation to War: Space, Position, and Contiguity in the Major Power Subsystem,” *International Studies Quarterly*, Vol. 44, No. 3, September 2000, pp. 503–530.

<sup>10</sup> Karen A. Rasler and William R. Thompson, “Contested Territory, Strategic Rivalries, and Conflict Escalation,” *International Studies Quarterly*, Vol. 50, 2006, pp. 145–167.

<sup>11</sup> Brandon Valeriano, “Becoming Rivals: The Process of Rivalry Development,” in John A. Vasquez, ed., *What Do We Know About War*, 2nd ed., Lanham, Md.: Rowman and Littlefield, 2012, pp. 63–82.

tendency for conflict. According to one study, rivalries between major powers have resulted in conflict 55 percent of the time.<sup>12</sup>

Strategic rivalries are defined by both a high perception of threat and competitiveness. The general threat perception can be observed in statements by government leaders and policies that prioritize threats to the nation. Scholars emphasize in particular the importance of the “enemy image,” which can be entrenched. With time and repeatedly reinforced expectations, the rivalry relationship develops a variety of “psychological baggage from which it is difficult to break free.” The dynamic becomes self-reinforcing over time. As one expert noted, the expectations become “more rigid, less sensitive to changes in adversary behavior, and less in need of continued reinforcement.”<sup>13</sup> It is the combination of serial incidents over competing objectives and perceptions of a threatening enemy that make conflicts between rivals so much more violent than those between nonrivals. Rivals are also highly competitive. In rivalries featuring rough parity, neither side has a decisive advantage, which can contribute to the long duration of many rivalries. The lack of decisive advantage also provides a strong incentive to carry out policies to bolster leverage through alliance building and arms racing.<sup>14</sup>

Scholars have traced patterns in recurring militarized disputes that collectively elevate the risk of conflict. As Diehl and Goertz have noted, “The greater the number of previous disputes, the more likely is the occurrence of another dispute. Instead of conflict weariness, well-institutionalized rivalries produce disputes in faster succession than shorter term ones.”<sup>15</sup> Other research has found that the risk of large-scale military conflict is highest in the beginning of a rivalry. Diehl and Goertz concluded that nearly 50 percent of wars occur by the third major militarized dispute and about 90 percent by the sixth dispute. They noted that the risk of conflict appears to decline somewhat over the span of the rivalry. According to Diehl and Goertz, the risk that a dispute could escalate to war is approximately 10 percent for the early phase of a rivalry (first six militarized disputes) but drops to 6 percent afterward.<sup>16</sup>

Despite the correlation between rivalry and conflict, academic research suggests that rivalry alone does not necessitate conflict. The accumulation of dispute issues between major powers and their allies provides the fuel that, when combined with perceptions of the other as a threatening enemy, increases the risk that a crisis could explode into military conflict.

Not only is there a risk of vertical escalation of a crisis issue between rivals, but scholars have also noted patterns in which rivals generate a horizontal expansion of issues. David Dreyer called this problem “issue spiral,” and he defines this as a “dynamic process in which tension increases as multiple issues accumulate.” According to Dreyer, issue spirals “increase perceptions of fear and distrust,” and can lead to the conclusion that the only way to achieve favorable

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<sup>12</sup> Michael Colaresi, Karen Rasler, and William R. Thompson, *Strategic Rivalries in World Politics: Politics, Space, and Conflict Escalation*, Cambridge, U.K.: Cambridge University Press, 2007.

<sup>13</sup> Rasler and Thompson, 2000, p. 506.

<sup>14</sup> Colaresi, Rasler, and Thompson, 2007, p. 238.

<sup>15</sup> Paul F. Diehl and Gary Goertz, “The Rivalry Process,” in John A. Vasquez, ed., *What Do We Know About War*, 2nd ed., Lanham, Md.: Rowman and Littlefield, 2012, p. 96.

<sup>16</sup> Diehl and Goertz, 2012, pp. 83–110.

issue settlement in regard to all disagreements is through “imposing one’s will.”<sup>17</sup> According to Dreyer, issue accumulation is “relatively common” among strategic rivals.<sup>18</sup>

Another dynamic that complicates the rivalry and makes conflict more likely is the multilateralization of conflict. Owing to the nature of positional issues, the most common disputes between major powers typically involve proxy or allied powers. Indeed, a review of past conflicts involving noncontiguous rivals suggests that wars between such powers are almost always multilateral—that is, they include many secondary powers and are almost never confined to the two rivals alone. The phenomenon of “war joining,” in which countries join coalitions between two rivals, is extremely common in a major power war.<sup>19</sup>

Studies have also noted strong linkages between arms races, alliance building, rivalry, and war. One study found arms buildups, alliance building, and repeated crises to be significant predictors of war.<sup>20</sup> A growing number of empirical findings and scientific studies have consistently confirmed the positive association between alliance building and risks of conflict. Although alliances may not be a cause of war, having outside alliances is found to more likely correlate with a higher risk of escalation in a crisis. Studies suggest the increasing threat perceptions of alliances as the source of this unintended consequence of alliances.<sup>21</sup> Other experts have noted, however, that alliances appear to have little impact on the initiation of disputes.<sup>22</sup> Scholars have also correlated arms buildups within rivalries to higher risks of escalation. According to Susan Sample, “The basic question of whether arms buildups are related to peace or escalation of conflict has largely been settled in favor of the latter.” She added that an ongoing mutual military buildup increases the likelihood of disputes escalating between non-rivals.<sup>23</sup> Other studies have similarly found a correlation between an elevated risk of escalation to conflict and arms races, alliances, and recurrent crises over various dispute issues.<sup>24</sup>

Another structural variable identified by researchers is the role of domestic demand for aggressive policies. Valeriano noted the importance of domestic audiences in rivalries. He stated that it is “almost impossible to terminate a rivalry if both the public and leadership do not agree to end the hostile relationship.”<sup>25</sup> Other scholars have identified a phenomenon of “rivalry outbidding” in which competing domestic political groups “agree on the primary external enemies of a state but try to outdo each other by advocating tougher policies against those enemies.” The net benefit from such actions is greater support from the public.<sup>26</sup>

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<sup>17</sup> David Dreyer, “One Issue Leads to Another: Issue Spirals and the Sino-Vietnamese War,” *Foreign Policy Analysis*, Vol. 6, No. 4, October 2010, pp. 297–315.

<sup>18</sup> Dreyer, 2010, p. 302.

<sup>19</sup> Rasler and Thompson, 2006, p. 526.

<sup>20</sup> Michael Colaresi and William R. Thompson, “Alliances, Arms Buildups and Recurrent Conflict: Testing a Steps to War Model,” *Journal of Politics*, Vol. 67, No. 2, 2005, pp. 345–364.

<sup>21</sup> Choong-Nam Kang, “Alliances: Path to Peace or Path to War?” in John A. Vasquez, ed., *What Do We Know About War*, 2nd ed., Lanham, Md.: Rowman and Littlefield, 2012, p. 41.

<sup>22</sup> Kang, 2012, p. 42.

<sup>23</sup> Sample, 2012, p. 136.

<sup>24</sup> Colaresi, Rasler, and Thompson, 2007, p. 238.

<sup>25</sup> Valeriano, 2012, p. 64.

<sup>26</sup> Diehl and Goertz, 2012, p. 92.

## Proximate Factors

Proximate factors relevant to the onset of conflict include those that relate to the perceptions of individual decisionmakers and those that pertain to the situation itself. In many ways, the proximate factors are those that determine the likelihood that a crisis, clash, or conflict could erupt at a particular moment.

Scholars have noted the importance of *perception* in a crisis among decisionmakers, especially as it is reinforced over time through the stream of crises and conflicts inherent in rivalries. In a crisis, the establishment of the enemy images can play a critical role in driving actors to view one another's actions as highly threatening. As one study of strategic rivals explained:

Since states' actual intentions are unobservable, decision-makers must make their best guess as to what each action means. Past experience forms the guiding hand of expectation to infer intentionality to action. If one expects cooperative behavior from a state, threats are likely to be interpreted more as warnings or slaps on the wrist. Conversely, in a relationship plagued by mistrust and expectations of conflict, the same threat may take on a much graver interpretation.<sup>27</sup>

The perspective of the antagonist regarding the broader strategic picture can profoundly affect decisionmaking in a crisis or conflict. In particular, an aggressor that regards strategic trends as worsening over time may prove resistant to approaches that appeal to rational calculation.<sup>28</sup>

The distribution of forces at the scene of a dispute and the diplomatic strategy employed in a crisis also appears to weigh on the potential for escalation during a crisis. Jack Levy reviewed numerous studies and concluded that the "balance of conventional capabilities in proximity to the target does play an important role in extended deterrence." However, he noted that military capabilities had at best a "secondary impact on the success or failure of immediate deterrence."<sup>29</sup> Paul Huth similarly concluded that "extended deterrence is greatly strengthened if the defender has the military capability to deny the attacker a quick victory and turn the conflict into a protracted struggle." He also noted the importance of strategies of managing crisis situations in a manner that signals resolve while controlling the risks of escalation. His study found that a tit-for-tat policy of graduated, proportional escalation not only signals the defender's willingness to use force but also has an important impact on the immediate balance of force. Effective management of the situation also requires a "firm but flexible diplomatic strategy" of limited compromise. The study found that this approach had the best chance of convincing the potential attacker that the political costs of continued peace remain acceptable.<sup>30</sup>

In terms of conflict triggers, the most common pattern identified by scholars included the following features: the triggering crisis involved at least one major power and centered on a highly contentious issue, occurred within a multilateral context, and involved a violent

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<sup>27</sup> Colaresi, Rasler, and Thompson, 2007, p. 108.

<sup>28</sup> Robert Jervis, "Deterrence Theory Revisited," *World Politics*, Vol. 31, No. 2, 1979, pp. 292–294.

<sup>29</sup> Jack S. Levy, "When Do Deterrent Threats Work?" *British Journal of Political Science*, Vol. 18, No. 4, 1988, pp. 485–512.

<sup>30</sup> Paul K. Huth, "Extended Deterrence and the Outbreak of War," *American Political Science Review*, Vol. 82, No. 2, 1988a, pp. 423–443.

trigger.<sup>31</sup> The most common path to conflict for major powers was one in which the major powers joined a war that is ongoing between proxies or allied powers.<sup>32</sup> Further illustrating how structural factors can strongly influence proximate ones, studies of past conflicts also suggest that crisis triggers such as verbal threats, sanctions, or military mobilizations are more likely to result in violent and escalatory responses within a rivalry context than outside it.<sup>33</sup> Crises within rivalries are also more likely to involve medium- or high-level threats, to employ militarized techniques, and to result in war than crises outside of rivalries.<sup>34</sup> More troubling, in a rivalry context, even benign events can ignite violence. Thus, nonviolent triggers to crises such as regime transitions or military maneuvers may spark an escalatory response. Similarly, states engaged in rivalry are likely to come to blows over issues that objectively may not seem militarily significant or have high salience.<sup>35</sup>

In sum, social science has tentatively identified a number of variables that appear to correlate with elevated risks of crisis and conflict onset and escalation. Scenarios developed to support political-strategic decisions should account for both structural and proximate factors based on such social-scientific evidence to provide the most realistic and analytically rigorous simulation of relevant conditions. A sample of such variables is provided in Table 3.1, but it should be emphasized that this represents an illustration and that further research could establish stronger correlations and/or identify new variables that are relevant to the defense planning needs.

Consistency in assumptions that address both structural and proximate variables is essential for politically realistic and logically consistent scenarios. Indeed, one of the most commonly encountered problems of defense scenarios is the clear mismatch between structural incentives and proximate causes of conflict. The problem commonly arises when scenario designers hope to minimize assumptions by mapping the “background” of a situation on a largely peaceful, if uneasy, status quo in which the risk of war is widely understood to be low. For example, a planner may project linear trends in U.S.-China relations that currently favor stable, if uneasy, peaceful bilateral relations. In a hypothesized future several years from now, the situation largely resembles the current one, but a sudden crisis involving Taiwan may drive Beijing to pursue war against the island and with the United States if it intervenes. The problem with this conservative approach is that it begins with implicit assumptions regarding structural variables that favor peace, not war. The injection of a proximate driver of conflict, a Taiwan crisis, results in contradictory incentives between the peace-oriented structural variables and war-oriented proximate variables. The result is likely to be confusing and irrational decisionmaking in the scenarios. If, after all, structural incentives favor a peaceful resolution of a Taiwan crisis that perhaps features cooperation between China and the United States, why would a crisis force China’s leaders to suddenly choose war?

Developing assumptions that are both more rigorously grounded and consistent in logic offers the potential for more robust scenarios that can support political-strategic decision-making. Caution is required in interpreting the data to create scenarios, however. Levy and

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<sup>31</sup> Colaresi, Rasler, and Thompson, 2007, p. 119.

<sup>32</sup> Colaresi, Rasler, and Thompson, 2007, p. 213.

<sup>33</sup> Colaresi, Rasler, and Thompson, 2007, p. 109.

<sup>34</sup> Colaresi, Rasler, and Thompson, 2007, p. 156.

<sup>35</sup> Colaresi, Rasler, and Thompson, 2007, p. 111.

**Table 3.1**  
**Structural and Proximate Factors in Crisis, Conflict Decisionmaking**

	Structural Factors	Proximate Factors
Definition	The broad systemic, economic, or societal level forces that shape the context for crises and conflict	The immediate factors regarding the individual decisionmaker or crisis situation
Role in crisis and conflict	Strongly shapes the incentive for decisionmakers to use military force in crisis or conflict	Directly affects decisions to use military force in crisis or conflict
Examples	Shift in balance of power; history and types of dispute issues; threat perceptions; history of militarized crises; alliance building; arms racing; multilateralized conflict involving allies/partners	Individual decisionmaker perceptions; distribution of forces at crisis/conflict situation; diplomatic methods; crisis trigger event

Thompson noted that most correlations between causal variables and the outbreak of war are “modest at best.”<sup>36</sup> The data represent aggregates of historical patterns, but anomalies always exist. Different variables appear to influence the onset and escalation of specific forms of conflict. Levy and Thompson indicated that system-level and individual-level factors probably have a greater impact on interstate wars than they do on civil wars, for example. They further noted that even within the category of interstate wars, system-level variables “probably have a greater impact on great power war” than on “wars between weaker states” and on “general or global wars than on other great power wars.”<sup>37</sup> Thompson has also noted how variations in regions suggest that different variables may matter for conflicts in different parts of the world. Finding ways to expand research, to develop comparable data sets, and to systematize the findings from such research can greatly facilitate the dissemination and use of such data for defense planning purposes. These caveats provide a useful reminder that analysts who rely on science to structure scenario assumptions should be prepared to revisit assumptions when new data and findings warrant such change. However, although the findings may be tentative, they do not undermine their usefulness. Given the importance of developing sound political-strategic decisions, scenarios grounded on solid but tentative scientific findings almost certainly provide a sturdier foundation for supportive analysis than the current practice of basing them on little more than speculation or nothing at all.

<sup>36</sup> Levy and Thompson, 2010, p. 207.

<sup>37</sup> Levy and Thompson, 2010, p. 209.



## Developing Science-Based Structured Scenarios

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This chapter proposes a methodology for building scenarios that incorporate the social science findings about war to more realistically depict nonmilitary factors. A challenge of creating more rigorous scenarios with social science findings is that the relevant data are not organized to support such work. This paper offers suggestions on ways to synthesize social scientific findings to support scenario planning, but the task could be made substantially easier if the findings were systematized and organized into a format better suited to use by defense planners and analysts.

The development of “science-based structured scenarios” (SBSS) requires some expertise on the part of the analyst, but not necessarily of the same type as that required for more traditional “road to war” scripting to support ECOA analysis. To be sure, expertise in the area or adversary country/group in question for the scenario is essential in both cases. However, for SBSS, the analyst also requires some familiarity with the social science findings about the causes of war and escalation. At the very least, the analyst should have a basic grasp of the different types of structural and proximate factors that contribute to crisis and conflict. Again, further work to synthesize, to systematize, and to simplify the findings in the field could help make this knowledge more accessible and easier to cultivate.

This paper proposes a four-step process for developing the SBSS: (1) determine the problem set, (2) build an escalation template of relevant variables, (3) develop and calibrate the escalation template, and (4) build the scenario.

Step 1: *Determine the problem set.* The first step is to determine the type of adversary and crisis or conflict of interest. The analyst must then determine the types of political and strategic decisions under investigation. Some decisions require a broader and more extensive array of assumptions and analytic reconstruction than others. For example, decisions about how to manage a spiraling military crisis or to intervene in a high-end conflict with a peacetime rival state would likely require extensive reconstruction of the structural and proximate variables needed to accurately present the incentives for conflict. By contrast, decisions about how to influence the perceptions of a potential adversary in a peacetime, albeit uneasy, situation will require fewer assumptions due to its resemblance to the existing uneasy peacetime status quo. For example, scenarios that aim to evaluate possible options to influence the perceptions of Chinese defense planners in an uneasy but peaceful competition will require few assumptions, since the current U.S.-China relationship involves an uneasy peaceful competition.

The factors that will affect the risks of escalation will vary according to the type of conflict and the nature of the actors involved. For most defense planners, the most commonly encountered situations will involve either the initiation or intervention in an interstate conflict or conflict with nonstate actors. Other examples of relevant political-strategic decision topics include those relevant to crisis management and conflict de-escalation.

**Table 4.1**  
**Sample Typology of Antagonists**

Antagonist Type	Definition	Examples
Great or major power	A large, wealthy country with a relatively advanced economy; technologically advanced militaries capable of projecting some power beyond its immediate periphery	China, United States, Russia, Japan, United Kingdom, India, France, Germany
Regional power	Relatively prosperous medium-sized countries with either small, advanced economies or larger mixed economies; relatively modern militaries, but ability to project power mostly confined to periphery	Iran, Iraq, Australia, Singapore, Vietnam, Taiwan, South Africa, Pakistan, Brazil
Minor power	Poorer small to medium countries with less developed economies; militaries generally less technologically advanced	Philippines, Cambodia, Afghanistan, Guatemala, Nicaragua, Sudan, Somalia
Nonstate actor	Armed groups operating within a country or across national boundaries	ISIS, al Qaeda, Taliban, various insurgency groups

A sample typology of the types of antagonists that have been researched by social scientists is listed in Table 4.1. In general, the highest level of state capacity for both adversaries determines the characterization of the conflict. For example, a conflict involving two regional powers and a minor power would be characterized as a “regional conflict.” The type of political-strategic decision of interest strongly influences the type of escalation template that an analyst might choose. A sample typology of how particular decision types fit with particular escalation templates is listed in Table 4.2. The typology represents oversimplifications for illustrative purposes, and, for that reason, in some cases, more than one option may appear. The analyst can choose from either depending on the nature of the problem under investigation. For example, scenarios to explore “crisis management with a risk acceptant antagonist” could be set at a lower level of escalation, or “mixed,” if the purpose is to examine diplomatic strategies and methods of de-escalation after a severe, violent crisis against a foe who nevertheless seeks to avoid war. However, it could also be set at a more escalatory level, or “favors conflict,” if the purpose is to examine the political effectiveness of military coercive options against a far more hostile enemy.

Step 2. *Build an “escalation template” for structural, proximate variables.* The next step will be to build a template of structural and proximate variables that correlate with escalation; this paper calls such a template an “escalation template.” Used in this manner, “escalation” refers to the risk that a given situation could experience an elevated risk of militarized crisis or conflict. The “escalation template” is a chart listing relevant factors that correlate with increased risks of militarized crisis or conflict. The template does include variants that explore how relevant factors can favor peaceful outcomes, but these variants are designed to support analysis that focuses on risks of escalation in a crisis or conflict.

The generic escalation templates listed in Tables 4.3 and 4.4 offer a starting point for structuring the key nonmilitary assumptions of a scenario. The data for these tables can be found in social science academic literature regarding conflict. Defense planners and analysts may not have the academic background in this literature. To help make sense of the research, the planners and analysts may want to consult academic experts and engage their help. However, this is admittedly an imperfect, ad hoc approach to an admittedly enormously complex topic. Over the long term, the DOD may want to consider investing in efforts to collect, systematize, and synthesize such data into a format that is more readily accessible by defense planners.

**Table 4.2**  
**Sample Typology of Political-Strategic Problem Sets**

Political-Strategic Issue	Description	Recommended Escalation Template
Shape adversary peacetime perceptions	The decision to employ peacetime defense operations, actions, or activities to shape an adversary's security policy in peacetime	Favors peace or mixed
Crisis management with risk-averse antagonist	Decisions to manage a militarized crisis and to de-escalate with an antagonist that seeks to avoid conflict	Favors peace or mixed
Crisis management with risk-acceptant antagonist	Decisions to manage a militarized crisis with an antagonist that is willing to risk a limited clash but not war	Mixed
Deter antagonist from limited or major military attack	Decisions to employ courses of action designed to discourage an antagonist from launching a military attack	Mixed or favors conflict
Conflict onset/military intervention	The decision either to initiate military combat or to intervene in an ongoing conflict between third parties	Favors conflict
Deter further escalation or de-escalate conflict	Decisions to deter an adversary from further escalating an ongoing attack or to persuade the adversary to begin de-escalation	Favors conflict

In the templates, the structural variables provide the incentives for leaders to favor escalatory or de-escalatory options in a crisis or conflict situation. The proximate variables are shaped by the structural variables but can inject new influences that help shape the outcome. To improve the accuracy of analysis of the factors most likely to affect escalation, analysts should tailor the generic template to fit the situation and type of political-strategic decisions of concern using the type of information provided in Appendix A.

Developing an escalation template is an important step for providing transparency regarding the assumptions in the scenario and for preparing the calibration of structural and proximate incentives. The general escalation template also includes suggested measurable indicators that could be useful for developing the details of a scenario. These variables and measures can be modified by the analyst according to the determination made in Step 1 about the identity of the adversary and decision topic of interest. Appendix A provides a list of modifications to different variables, depending on the nature of the conflict or adversary in question.

Step 3. *Calibrate escalation template (optional)*. The third step is optional; generally it will be of more use for the more speculative situations that differ dramatically from the status quo. For example, scenarios that explore how a conflict might erupt between the United States and China will require a significant amount of assumptions since such a hypothetical conflict will involve conditions that differ dramatically from the relatively peaceful U.S.-China relations today. By contrast, for scenarios that largely resemble the existing situation, this step may not be required. For example, scenarios that explore how a crisis might erupt in a persistent trouble spot like Syria might require far fewer assumptions due to the frequency of crises that occur there.

Creating escalation variants of the template for more hypothetical conflict situations offers several advantages. Not only does it help the analyst better understand the different roles that structural and proximate variables play in a crisis or conflict, but it also provides opportunities to scale and tailor the level of escalation to best fit the needs of the analysis. For example, an analyst may wonder if a dispute between China and Taiwan would be sufficient to spark a

**Table 4.3**  
**Generic Escalation Template for Structural Variables (Interstate Conflict)**

Structural Variable	Favors Peace	Favors Conflict	Measures
Shift in balance of power <sup>a</sup>	Incremental change	Rapid change	Relative change in gross domestic product (GDP), military force balance of power, leadership position in a system
Dispute issues <sup>b</sup>	Few, easily managed	Many, multiple topics, intractable involving both positional and territorial issues	Variety, type, and history of disputes between two rivals, but also evidence that other countries are “joining in” with one side or the other
Rivalry dynamic <sup>c</sup>	Both regard each other as low threat, peaceful competitor	Both regard each other as highly threatening and as hostile competitor	Official designations of primary and secondary threats, evidence of “enemy image,” linkage of competitive policies to the threat posed by rival
History of militarized crises <sup>d</sup>	None or fewer than one	More than three severe crises	Destabilized political-military incidents involving militarized assets that were ultimately resolved diplomatically
Alliance building <sup>e</sup>	Little effort to expand alliance/security partnerships	Intense effort to expand alliances, partnerships to target other	Announcements, activity indicating a buildup of military partnerships aimed in part at rival country
Arms racing <sup>f</sup>	Little evidence of military buildup	Rapid and intense buildup aimed at each other	Increases in defense spending and pace of buildup of military assets that could be used against rival
Domestic demand for aggressive policies <sup>g</sup>	Little to no constituency in each country for hostile policies	Large and powerful constituency demands hostile policies against rival	Polls indicating support for hostile, violent actions against rival state; clear political punishment for leaders who advocate compromise and popularity for hard-line leaders
Multilateralization of disputes <sup>h</sup>	Dispute mainly confined to two parties	Overlapping disputes among proxies, allies, partners	Statements by involved governments about disputes, identified threats, and gestures of support for partners in dispute with main rival

SOURCES: <sup>a</sup>Levy and Thompson, 2010, p. 211.

<sup>b</sup>Dreyer, 2010, p. 310.

<sup>c</sup>Valeriano, 2012, pp. 63–82.

<sup>d</sup>Diehl and Goertz, 2012, p. 96.

<sup>e</sup>Colaresi, Rasler, and Thompson, 2007, p. 238.

<sup>f</sup>Sample, 2012, p. 136.

<sup>g</sup>Diehl and Goertz, 2012, p. 92.

<sup>h</sup>Rasler and Thompson, 2006, p. 526.

war involving the United States. Filling out the escalation template and noting the respective roles that “multilateralization” of disputes and the importance of the “enemy image” in driving all sides to conflict could help the analyst more clearly realize that a bilateral dispute involving China and Taiwan alone is insufficient for causing war and that other developments would need to happen.

**Table 4.4**  
**Generic Escalation Template for Proximate Variables (Interstate Conflict)**

Proximate Variable	Favors Peace	Favors Conflict	Measures
Decisionmaker perception of situation <sup>a</sup>	Balances fear of threat with fear of war; views open to correction	Severe issues of threat inflation; heightened sense of danger; hardened views	Statements by leaders regarding situation; messaging content to other parties
Decisionmaker perception of broader strategic situation <sup>a</sup>	Generally optimistic or confident	Insecure and/or pessimistic about long-term trends	Statements by leaders regarding long-term trends beyond current crisis
Balance of military forces at site of dispute <sup>b</sup>	Relative parity of forces	Imbalanced in favor of aggressor	Comparison of military forces in proximity of dispute
Diplomatic methods <sup>c</sup>	Firm but flexible approach	Rigid and inflexible diplomacy	Statements by either side regarding demands, evidence of diplomatic actions to manage situation
Trigger event <sup>d</sup>	Established flash point but not violent	Established flash point, violent incident; for the most severe rivalries, trigger can be a seemingly unimportant event	Reports of the proximate cause of the crisis and reported leadership decisions on how to respond

SOURCES: <sup>a</sup>Jervis, 1979, pp. 292–294.

<sup>b</sup>Levy, 1988, pp. 485–512.

<sup>c</sup>Huth, 1988a, pp. 423–443.

<sup>d</sup>Colaresi and Thompson, 2005, pp. 345–364.

Escalation template variants consist of three versions of the template created in step 2 above. These variants include descriptions of the measures for each variable corresponding to the level of risk, from lowest to highest. The lowest risk variant should be labeled “favors peace,” and it should include modified variables calibrated to favor peaceful competition or de-escalation in conflict. The “favors peace” versions are best suited for the study of peacetime competition, perception shaping, or crisis management problems that may have a low risk of escalation. For scenarios with a competitor that is mostly peaceful in nature, this variant may closely resemble the status quo, and no additional variant escalation templates may be required.

A second variant, “mixed,” simulates the situation in which an adversary is less certain whether to escalate or de-escalate a given crisis situation. Accordingly, the variables should be modified to reflect a more mixed set of incentives. This variant is well suited for scenarios that explore issues of deterrence, manage an especially volatile and dangerous militarized crisis with an antagonist that is reluctantly contemplating escalation, or explore options for de-escalating an unwanted conflict. In general, the “mixed” situation may hold the potential of escalation to a serious crisis but has little risk of escalation to major war.

The analyst may want to build a “highest risk” variation, perhaps labeled “favors conflict,” where each of the structural variables has been ratcheted to reflect a high risk of escalation. This variant could be useful for analysis of problems related to managing a conflict, for seeking ways to de-escalate, or for strategic problem-solving related to conflict. If the scenario is focused on an antagonist whose threat of war is currently low, then this variant will require the most extensive reconstruction of relevant variables and a robust array of supporting assumptions.

To recap, developing the escalation variants is most likely to be useful for the construction of the demanding “favors conflict” type of scenarios with a rival power that is currently not in conflict with the United States. When designing these “favors conflict” types of scenarios, drafting the three versions of escalation templates can help the analyst clarify assumptions and ensure consistency throughout the variables. An example of how creating the variants can help clarify assumptions can be seen in the issue of multilateralization. For purposes of minimizing assumptions, analysts may be tempted to depict U.S. conflict with a great power, such as China, as an affair that largely involves the two countries and a source of contention, such as Taiwan. However, the assumption that war between great powers would remain largely a bilateral affair involving at most one third party has little evidentiary backing. As noted previously, conflict between great powers are almost always multilateral affairs featuring overlapping rivalries. Bilateral disputes are more likely to be symptomatic of a “favors peace” type of situation. Thus, when developing the escalation variants, the analyst should place related assumptions about the bilateral and multilateral nature of disputes in the respective “favors peace” and “favors conflict” columns (see Table B.3 for an example).

Step 4. *Build the scenario.* After selecting the appropriate escalation template, the analyst begins constructing the scenario. Following conventional practice, the analyst can sketch the main features of the crisis or conflict and briefly describe the “road to war” that led to the situation of interest. Key assumptions in the scenario can be sourced to the escalation template or to the footnotes from the template. Every detail in the road to war and in the scenario should be justified by appeal to the judgments outlined in the escalation template or to readily available information about the adversary or situation of interest. Where there is no such judgment or data to back up such a detail, the analyst should accept its malleability or disposability. This practice can help promote both transparency and ensure evidentiary backing for the most important assumptions. Once the scenario has been completed, it can be employed to support appropriate exercises, war games, or facilitated discussions on the political-strategic questions of interest. Appendix B provides a sample of a scenario that has been developed using the process outlined above.

## Conclusion

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In an era of increasing unsettled global politics, great power competition, and resource constraints, defense planners must pay more attention to the political and strategic dimensions of conflict if they are to help decisionmakers more effectively anticipate and prepare for possible crisis and conflict situations. Existing doctrine and practices regarding scenario development, originally designed to support military decisions, poorly serve these needs. However, the growth in scientific research on the causes of war and the drivers of conflict escalation provide a valuable resource to help mitigate the problem. Tentative findings provide a more rigorous, tested foundation that analysts can build assumptions on to create scenarios that more realistically and accurately present the conditions that could occasion future crises or conflict.

Among the most important findings is that the onset of conflict is deeply influenced by structural and proximate variables. A conflict does not simply appear “out of the blue.” Leaders choose risky, violent options over peaceful ones in response to incentives that may be systemic as well as proximate in nature. Replicating these incentives accurately is essential to building scenarios that more realistically capture the factors that influence political-strategic decisionmaking. This paper has proposed a way to conceptualize and present this logic in a manner that could support defense planning.

While this paper has primarily focused on scenario development for the purposes of political-strategic decisionmaking, the findings contained herein also carry important implications for analytic support to military decisionmaking. Some of the structural and proximate nonmilitary factors—such as the tendency toward the multilateralization of disputes, alliance building, and serial crises—carry important implications for military decisions. These research findings raise questions about the likelihood of involvement by key allies, potential base access, and preparations for military crises. Strengthening the nonmilitary factors in scenarios designed to support military decisionmaking could thus help improve the quality of military as well as political-strategic analysis.

The methodology outlined in this paper also carries implications for intelligence-warning analysts. The scientific findings about patterns in escalation and conflict provide critical insight into the key indicators that will likely correspond with higher risks of conflict. Analysts who engage in scenario reconstruction regarding potential flash points may be able to posit indicators of risk that could inform warning.

To realize this potential, more work will be required to translate the findings from the social sciences into formats that can be more easily used in defense planning processes and intelligence analysis. Findings can be summarized and arranged in a systematic manner to more closely support the development of escalation templates, and further research helps to elaborate how differing types of conflict scenarios involve particular structural and proximate

factors. More work can be applied to elaborate on how analysis of nonmilitary factors can support peacetime political-strategic decisionmaking. Defense planning, a critical discipline for the nation's security, requires all the intellectual support available to ensure its effectiveness. The growing array of scientific data on relevant topics provides an opportunity to contribute to that refinement.



## Variation in Nonmilitary Factors for Different Types of Crisis and Conflict Situations

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The relevant structural and proximate variables outlined in Tables 3.3 and 3.4 merely provide a generic list. To more realistically simulate the political and strategic conditions of a crisis or conflict, these factors should be tailored to accord with available scientific findings regarding particular types of crises and conflicts, each of which may have its own particular characteristics and unique drivers. Table A.1 provides a sample of key structural and proximate variables that pertain to particular types of conflict. These variables can be supplemented or altered by planners to suit their specific analytic needs. However, this merely represents an example. Social scientists have noted variation in the types of factors that affect risks of escalation in different parts of the world. For a more accurate and dependable list of relevant variables, analysts should seek ways of collecting data on relevant types of conflict in the specific region of interest. Where such data are not available, this more generic list can provide a starting point for analysis.

**Table A.1**  
**Sample Structural Variables Across Different Conflict Types**

Conflict Type	Structural Variable	How Variation Affects Conflict Escalation Risk
Civil war	Economic deprivation	Decreasing mass wealth across a populace fosters resentment and can increase popular sentiments to support insurgencies and rebellion. Increasing wealth provides greater public welfare and prosperity, which limits support for rebellion. <sup>a</sup>
	Economic inequality	Increasing economic inequality fosters greater resentment among poorer portions of the populace. This can fuel popular support for rebellion. <sup>b</sup>
	Political representation	Democratic governments face lower risks of conflict than autocracies since their institutions promote peaceful resolution of conflict and foster broad public support for leaders. <sup>c</sup>
	Political discrimination	States face increased risks of conflict as levels of political discrimination, particularly along ethnic lines, increases. Discrimination increases resentment against governments among excluded populations. <sup>d</sup>
	Low state capacity	Stronger state institutions lower the risk of civil war by both deterring would-be rebels and by improving public welfare, thereby reducing public grievances. <sup>e</sup>
	History of conflict	Recent conflicts often cause such economic and societal damage to the state that the risk of a new conflict is often at its peak in the five years immediately after the end of a recent conflict. <sup>f</sup>
	Risk of conflict contagion	Several ongoing conflicts in neighboring states increase the risk of civil war, since ongoing conflicts may spill across borders. Also, ongoing conflicts increase the availability of weapons and fighters. <sup>g</sup>
	State repression	Increased use of repression in response to popular movements to deter conflict can, ironically, turn nonviolent protests into open armed rebellion. <sup>h</sup>
	Refugee flows	Large influxes of refugees increase civil war risk by adding to existing societal and economic pressures, providing a spark of grievance that groups can use to foment rebellion. <sup>i</sup>
Conflict between regional powers	Territorial conflicts	A crisis sparked by a territorial dispute, particularly over strategically or economically valuable territory, is most likely to escalate to a military confrontation between states. <sup>j</sup>
	Existence of regional hegemon	A global power that acts as a military hegemon in a region lowers the risk of conflict between regional states by providing protection to weaker states in the region. <sup>k</sup>
	Political congruence	Two democracies are significantly less likely to fight each other or to escalate a crisis to a military confrontation. <sup>l</sup>
	Dyadic military capabilities	Increasing military parity between states, such that both states possess more equal military power, increases the risk of misperception about the odds of successful conflict and may encourage escalation. <sup>m</sup>
Global great power conflict	Power transitions	The erosion of a declining state's military hegemony and increasing parity with a rising power may raise the risk of conflict as the rising power advances its global agenda and a declining power seeks to maintain its global advantage using all means available. <sup>n</sup>
	Economic interdependence	Increased economic activity and trade between states lowers the risk of escalation and makes conflict less likely, since conflict between trading partners can significantly harm both sides' economies. <sup>o</sup>
Maritime interstate conflict	Strategic importance of territory	Maritime disputes typically carry lower risk of escalation than disputes over land territory, since maritime territory is not as easily translated into strategic advantage.

<sup>a</sup>Paul Collier and Anke Hoeffler, "Greed and Grievance in Civil War," *Oxford Economic Papers*, Vol. 56, No. 4, 2004; James D. Fearon and David D. Laitin, "Ethnicity, Insurgency, and Civil War," *American Political Science Review*, Vol. 97, No. 1, 2003.

<sup>b</sup>Halvard Buhaug, Lars-Erik Cederman, and Kristian Skrede Gleditsch, "Square Pegs in Round Holes: Inequalities, Grievances, and Civil War," *International Studies Quarterly*, Vol. 58, No. 2, 2014; Lars-Erik Cederman, Nils Weidmann, and Kristian Skrede Gleditsch, "Horizontal Inequalities and Ethnonationalist Civil War: A Global Comparison," *American Political Science Review*, Vol. 105, No. 3, 2011.

<sup>c</sup>Havard Hegre, Tanja Ellingson, Scott Gates, and Nils Petter Gleditsch, "Toward a Democratic Civil Peace? Democracy, Political Change, and Civil War, 1816–1992," *American Political Science Review*, Vol. 95, No. 1, 2001.

<sup>d</sup>Halvard Buhaug, Lars-Erik Cederman, and Jan Ketil Rød, "Disaggregating Ethno-Nationalist Civil Wars: A Dyadic Test of Exclusion Theory," *International Organization*, Vol. 62, No. 3, 2008; Lars-Erik Cederman, Andreas Wimmer, and Brian Min, "Why Do Ethnic Groups Rebel? New Data and Analysis," *World Politics*, Vol. 62, No. 1, 2010; Andreas Wimmer, Lars-Erik Cederman, and Brian Min, "Ethnic Politics and Armed Conflict: A Configurational Analysis of a New Global Data Set," *American Sociological Review*, Vol. 74, No. 2, 2009.

<sup>e</sup>Hanne Fjelde and Indra De Soysa, "Coercion, Co-Optation, or Cooperation? State Capacity and the Risk of Civil War, 1964–2004," *Conflict Management and Peace Science*, Vol. 26, No. 1, 2009; David Sobek, "Masters of Their Domains: The Role of State Capacity in Civil Wars," *Journal of Peace Research*, Vol. 47, No. 3, 2010.

<sup>f</sup>Barbara F. Walter, "Does Conflict Beget Conflict? Explaining Civil War Recurrence," *Journal of Peace Research*, Vol. 41, No. 3, 2004.

<sup>g</sup>Halvard Buhaug, and Kristian Skrede Gleditsch, "Contagion or Confusion? Why Conflicts Cluster in Space," *International Studies Quarterly*, Vol. 52, No. 2, 2008.

<sup>h</sup>Nathan Danneman and Emily Hencken Ritter, "Contagious Rebellion and Preemptive Repression," *Journal of Conflict Resolution*, Vol. 58, No. 2, 2014; Emily Hencken Ritter, "Policy Disputes, Political Survival, and the Onset and Severity of State Repression," *Journal of Conflict Resolution*, Vol. 58, No. 1, 2013.

<sup>i</sup>Idean Salehyan and Kristian Skrede Gleditsch, "Refugees and the Spread of Civil War," *International Organization*, Vol. 60, No. 2, 2006.

<sup>j</sup>Douglas M. Gibler, *The Territorial Peace: Borders, State Development, and International Conflict*, Cambridge, U.K.: Cambridge University Press, 2012; Paul R. Hensel, "Charting a Course to Conflict: Territorial Issues and Interstate Conflict, 1816–1992," *Conflict Management and Peace Science*, Vol. 15, No. 1, 1996; Paul K. Huth, *Standing Your Ground: Territorial Disputes and International Conflict*, Ann Arbor, MI: University of Michigan Press, 1996; John A. Vasquez and Marie T. Henehan, *Territory, War, and Peace*, New York, N.Y.: Routledge, 2011.

<sup>k</sup>A. F. K. Organski and Jacek Kugler, *The War Ledger*, Chicago: University of Chicago Press, 1981; Angela O'Mahony, Miranda Priebe, Bryan Frederick, Jennifer Kavanagh, Matthew Lane, Trevor Johnston, Thomas S. Szayna, Jakub P. Hlavka, Stephen Watts, and Matthew Povlock, *U.S. Presence and the Incidence of Conflict*, Santa Monica, Calif.: RAND Corporation, RR-1906-A, 2017.

<sup>l</sup>Bruce Bueno de Mesquita, James D. Morrow, Randolph M. Siverson, and Alastair Smith, "An Institutional Explanation of the Democratic Peace," *American Political Science Review*, Vol. 93, No. 4, 1999; Eric Gartzke, "Kant We All Just Get Along? Opportunity, Willingness, and the Origins of the Democratic Peace," *American Journal of Political Science*, Vol. 42, No. 1, 1998; Zeev Maoz and Bruce Russett, "Normative and Structural Causes of the Democratic Peace, 1946–1986," *American Political Science Review*, Vol. 87, No. 3, 1993.

<sup>m</sup>Paul K. Huth, D. Scott Bennett, and Christopher Gelpi, "System Uncertainty, Risk Propensity, and International Conflict Among the Great Powers," *Journal of Conflict Resolution*, Vol. 36, No. 3, 1992; Paul Huth, Christopher Gelpi, and D. Scott Bennett, "The Escalation of Great Power Militarized Disputes: Testing Rational Deterrence Theory and Structural Realism," *American Political Science Review*, Vol. 87, No. 3, 1993.

<sup>n</sup>Organski and Kugler, 1981; Robert Gilpin, *War and Change in International Politics*, Cambridge, U.K.: Cambridge University Press, 1981; Robert O. Keohane, *After Hegemony: Cooperation and Discord in the World Political Economy*, Princeton, N.J.: Princeton University Press, 1984; Douglas Lemke, "The Continuation of History: Power Transition Theory and the End of the Cold War," *Journal of Peace Research*, Vol. 34, No. 1, 1997.

<sup>o</sup>John R. Oneal and Bruce Russett, *Triangulating Peace: Democracy, Interdependence, and International Organizations*, New York: W.W. Norton, 2001.



## Sample Scenario Build: China-Taiwan Conflict Onset

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This appendix will provide an example of how a scenario can be constructed to serve political-strategic decisions, using the four-part methodology outlined in the paper. Although any contingency could suffice, for purposes of illustration this appendix will feature a hypothetical conflict between China and Taiwan and the United States.

### Step 1: Designate the problem set

The primary antagonist of interest is China. As the world's second largest economy, a principal strategic rival of the United States, and the owner of one of the largest militaries, China may be characterized as a "great power." The type of situation of interest is a potential escalation into a major war between China and Taiwan, with U.S. involvement. Taiwan may be regarded as a "regional power" and the United States as a "great power." However, the problem set is generally defined by the status of the highest level capabilities of the adversaries, which in this example includes both China and the United States. From Table 3.1, we can designate the conflict as one between "great powers," even though the proximate cause involves Taiwan.

The political-strategic issue of interest concerns how to deter China from launching a major military attack against Taiwan. From Table 3.2, we thus select the following generic problem set:

Deter antagonist from major military attack	Decisions to employ courses of action designed to discourage an antagonist from launching a major military attack	Mixed or favors conflict
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The recommended escalation templates reflect a range of possible contingencies, from a limited clash ("mixed") to major conflict ("favors conflict"). For purposes of this example, we want to investigate deterrence of a major conflict, which makes the more intense variety, or "favors conflict," the appropriate one. In this scenario, we seek to explore Chinese decision-making in preparation for a potentially large-scale, violent attack on Taiwan and any intervening powers. By contrast, the "mixed" variant reflects the idea that China could be contemplating a punitive action in response to a Taiwan provocation, such as a cyberattack or even the provoking of a militarized crisis. In the "mixed" variant, China is not postured to risk a major escalation, and thus such a scenario would be better suited for studies of crisis management or deterrence of smaller scale hostile military action.

The generic problem of deterring a major Chinese military attack may now be restated in more specific terms. The purpose of the scenario may be stated as "an exploration of the political-strategic decisions regarding how to deter China from launching a major military

attack against Taiwan and any intervening forces, including the U.S. military. In this scenario, China’s leadership has a strong motivation to consider large-scale violence to achieve its goals.”

### Step 2: Build an escalation template

The next step is to build the escalation template, tailoring the descriptions of variable measurements to the “great power conflict” problem. Each of the descriptions provides a basic measurement that can be adjusted in the escalation variants. Using the generic templates provided in Tables 3.3 and 3.4, we can develop modified, tailored templates for the China-U.S.-Taiwan problem. Consulting the modification table in Table A.1, the variables from “great power conflict” appear relevant to this scenario and are included accordingly. The modified escalation template and descriptive measures may be written out as seen in Table B.1 and Table B.2.

### Step 3: Create escalation template variants

Once the general escalation template has been modified to specify the variables as it applies to the China-Taiwan situation, the escalation template variants may be developed. Developing escalation template variants is especially useful for conflict scenarios as this, since so many assumptions are required to increase its plausibility. Building the variants allows the analyst to map out key assumptions and place them in the appropriate column to reflect escalation risk. In this case, the “favors peace” column represents a set of measures that would correlate with the peaceful resolution of any incident that arose between China and Taiwan. The “mixed” column reflects the measures that would correlate with a higher risk of a severe military crisis,

**Table B.1**  
**Escalation Template: China-Taiwan/U.S. Major Conflict Measures**

Structural Variable	Descriptive Measurement for China-Taiwan/United States
Systemic: Shift in balance of power	Dramatic change in Chinese GDP relative to U.S.; shift in leadership and status regionally and globally
Dyadic: Dispute issues	Types, variety, and severity of disputes between China and Taiwan, as well as between China and its rivals, including U.S. and Japan
Dyadic: Rivalry dynamic	China and U.S./Taiwan/Japan/other hold entrenched perceptions of one another as “enemies,” competitors, and a source of severe threat
Dyadic: History of militarized crises	The number and severity of militarized crises between China and Taiwan, as well as between China and its rivals, including U.S. and Japan
Systemic or dyadic: Alliance building	Level of effort and change in the quality of security alliances or partnerships between China and its rivals, including U.S. and Japan
Systemic or dyadic: Arms racing	The relative increase in U.S./China/Taiwan/other defense spending and as measured against domestic spending needs, and the degree to which the arms buildup clearly seems aimed at the rival
Systemic or dyadic: Domestic demand for aggressive policies	Public support in China and its rivals, including Taiwan, U.S., and Japan, for hard-line policies and public perceptions of the other country as an “enemy” state that intends severe harm
Systemic: Multilateralization of disputes	The degree to which China-Taiwan dispute overlaps with disputes China and its rivals, including U.S. and Japan
Economic interdependence	Lower levels of trade, investment interdependence increases risk of conflict between China and its rivals, including Taiwan, U.S., and Japan
Great power transition dynamic	Relative decline in U.S. comprehensive national power relative to China increases risk of conflict

**Table B.2**  
**Proximate Variables: China-Taiwan Deterrence of Major War Measures**

Proximate Variable	Descriptive Measurement for China-Taiwan
Decisionmaker perception of situation	Statements by China and its rivals, including Taiwan, U.S., and Japan, regarding situation that signal intent to use military force and the relative openness to diplomatic solutions
Decisionmaker perception of broader strategic situation	Statements by leaders in China and its rivals, including Taiwan, U.S., and Japan, about the long-term trend if the current situation is mishandled
Balance of military forces at site of dispute	Comparison of relative military strength of China and its rivals, including Taiwan, U.S., and Japan, near the cross-strait area and in theater
Diplomatic methods	Signals sent by China and its rivals, including Taiwan, U.S., and Japan, regarding receptivity to diplomatic de-escalation
Trigger event	The type of triggering event in the cross-straits area that immediately precipitates crisis or conflict. For great power conflict involving China and the U.S., the event may seem insignificant to a casual observer.

although the risk of major war would remain low. The “favors conflict” scenario features measures that most closely correlate with a high risk of escalation to major war. Each of the descriptions in the boxes is the variant to be used to build the eventual scenario (in this case, “Favors Conflict”). Adding a designated number to each description allows it to be used as an assumption in the scenario. In this example, the first description is followed by “A1” in parentheses, which designates it as “Assumption 1,” which can then be cited in the sample scenario later in this appendix. The second assumption is labeled “A2,” the third “A3,” and so on.

#### **Step 4: Build the scenario**

The next step is to build the scenario, drawing from the assumptions outlined in the escalation templates. The scenario typically takes a narrative form, including a “road to war” that captures many of the structural variables and clearly depicts the proper incentives and motivations for the adversaries involved.

The “road to war” generally follows the guidelines established in U.S. planning doctrine in that it provides a narrative of events that has led up to the decisionmaking situation of interest. The main way that the SBSS approach differs from established doctrine is that it conditions “plausibility” on the assumptions outlined in the escalation template. The scope of variation in the narrative is thus considerably more restricted than is the case with that outlined in existing doctrine. Details add to the realism and plausibility of any scenario, and they should be added in those based on SBSS methodology as well. However, the details that are added should conform to the logic of the assumptions as well as to known information about the adversary and situation. So long as these conditions are met, the actual details of which ship or which incident generated action matter less and can be substituted and modified to serve the needs of decisionmaking and planning.

To illustrate how SBSS can support both military and political-strategic decisionmaking, examples for each situation are provided below. The military decision will center on the employment of a military course of action to counter a Chinese attack on Taiwan. The military decision would mainly focus on the details of ECOA and military operations analysis, neither of which are provided here. This sample scenario will summarize nonmilitary factors, envisioned mostly as background material to the ECOA analysis. By contrast, the political-

**Table B.3**  
**Escalation Template Variants: Structural Variables for China-Taiwan Major War Deterrence**

Structural Variable	Favors Peace	Mixed (potential cross-strait crisis)	Favors Conflict (potential major war)
Shift in balance of power	Little or incremental shift in China, U.S. GDP growth, regional, global influence	Significant but slow shift in favor of China/U.S. in GDP growth, regional leadership	China GDP, regional and global leadership increases dramatically relative to U.S. (A1)
Dispute issues	China-Taiwan disputes mostly bilateral; China-U.S. and China-Japan disputes are few and managed separately, in a stable manner	China-Taiwan disputes overlaid with increasing China-U.S., China-Japan disputes over variety of issues, some intractable	China's disputes with Taiwan, U.S., Japan overlapping, varied, intractable, and heated. May span issues of trade, regional/global rules and norms, sovereignty, cyber, other... (A2)
Rivalry dynamic	China perceives Taiwan separatism as main threat; U.S./Japan and China view each other as competitors and potential threats	China perceives Taiwan separatism as a key threat, but U.S./Japan and China view each other as untrustworthy and as potential threats	China and U.S./Japan view each other as hostile enemies intent on threatening the long-term survival of the other; China sees Taiwan as linked to U.S. threat (A3)
History of militarized crises	No militarized crisis involving China and Taiwan; U.S. helps with de-escalation	One to two militarized crises involving China and neighbor or U.S.; de-escalation with minimal trust between U.S.-China	Three or more militarized crises involving China and U.S. or others ending with severe recrimination; crisis management mechanisms ineffective (A4)
Alliance building	U.S. maintains current approach to alliance building; China maintains nonalignment	U.S., Japan, Taiwan step up alliance/partner building; China bolsters ties with Russia, seeks more partners and seeks to undermine U.S. alliances	U.S., Taiwan, Japan establish new, stronger commitments and new partners; China establishes stronger partner, alliance-like arrangements with Russia, others (A5)
Arms racing	China, Taiwan, U.S. maintain current or incrementally more defense buildups	China, Taiwan, U.S., Japan significantly increase military buildups, but it is balanced with other priorities	Major increases in defense spending in China, U.S., Japan, Taiwan, and other regional actors; prioritized over other pressing domestic needs (A6)
Domestic demand for aggressive policies	Little public demand for hostile policies against U.S., China; China's public demands hard line against Taiwan	Citizens in China and U.S./Japan/Taiwan view each other as hostile competitors, support more hard-line policies	Citizens in China and U.S./Japan/Taiwan view each other as implacable enemies and demand aggressive policies to deal with threat (A7)
Multilateralization of disputes	Primarily China-Taiwan dispute; U.S. and Japan involvement mostly political	Intensifying China disputes with U.S., Japan, and others exacerbate China-Taiwan disputes	China simultaneously maintains intense, intractable feuds with U.S., Japan, Taiwan, and others (A8)
Economic interdependence	High degree of U.S.-China economic interdependence and generally complementary economies	U.S.-China economic interdependence mitigated somewhat by competition between similar industries	Lower levels of economic interdependence and higher levels of competition in similar U.S., Chinese industries (A8a)
Power transition dynamics	U.S. comfortably maintains military dominance in region, as well as lead economy status over China	U.S. military edge narrows, and U.S. narrowly maintains lead over China as global lead economy	U.S. military edge over China in Asia is widely doubted; China credibly contests U.S.'s status as lead global economy (A8b)



**Table B.4**  
**Escalation Template Variants: Proximate Variables for China-Taiwan Major War Deterrence**

Proximate Variable	Favors Peace	Mixed	Favors Conflict
Decisionmaker perception of situation	China, U.S. leaders view Taiwan situation as extremely dangerous and collaborate to resolve	China, Taiwan/U.S. leaders view situation as dangerous, but deep distrust impedes resolution	China, Taiwan/U.S./Japan leaders view rival as harboring ulterior motives, and all refuse to cooperate (A9)
Decisionmaker perception of broader strategic situation	China, Taiwan, U.S. leaders generally hopeful about trends beyond current situation	China or U.S./Taiwan hold slightly pessimistic views of broader trends	China or U.S./Taiwan hold deeply pessimistic trends about broader trends, especially if they fail in current crisis (A10)
Balance of military forces at site of dispute	Relative parity of forces near Taiwan and in Asia-Pacific theater	China has a slight advantage over Taiwan, U.S. forces near Taiwan but not in the theater	China has a significant advantage over Taiwan, U.S., and Japan in area near Taiwan Straits and relative parity in the theater (A11)
Diplomatic methods	China, Taiwan have deep distrust, but both sides open to the U.S.'s help in de-escalating situation	Distrust impedes resolution, but diplomatic mechanisms still functional and all sides show some flexibility	Deep distrust, enmity has led to near complete breakdown in diplomatic channels and all sides have inflexible approach (A12)
Trigger event	Serious political, military incident regarding cross-strait ties	Serious political, military incident regarding cross-strait ties, possibly involving fatalities	Any major, controversial incident near Taiwan sufficient to escalate to conflict (A13)

strategic decision will focus on whether and how the United States should militarily intervene in a conflict between China and Taiwan. To answer this question, the scenario will involve a more extensive discussion of nonmilitary and military structural and proximate variables to the start of the conflict. The numbered assumptions (A1, A2, etc.) are based on the escalation template developed above, and this in turn is derived from social science findings regarding the causes of conflict and escalation.

### ***China-Taiwan Conflict: Scenario to Support Military Decisions***

The sample scenario to support military decision centers on the employment of a military campaign to defeat Chinese aggression against Taiwan. In this scenario, the main political and strategic decisions have been simply resolved by assuming U.S. leaders have directed the military to carry out operations to defend Taiwan. The details of the evolving strategic and political scenario matter less for this military decision that mainly involves issues of operational planning. Accordingly, the road to war provides only basic information on nonmilitary factors primarily to include key assumptions, such as the role of allies, and as background for the ECOA analysis (not provided here). An example of such a simplified scenario could be written as follows.

U.S.-China tensions have reached high levels of acrimony and hostility, driven by a proliferating array of disputes over a broad range of issues (A1).

China's relationship with Taiwan has deteriorated to intense levels of enmity, but China's feuds have also multilateralized. There are ongoing feuds between China and the United States and between China and Japan, and, to a lesser degree, between China and India and Vietnam (A8). A series of severe militarized crises have brought China to the brink of conflict with the

United States or Japan, and this in turn has aggravated tensions and fueled an arms race and alliance-building-type activities (A5, A6). The most recent crisis occurs against a backdrop of growing Chinese pessimism about their country's situation and resolve to use military force to fundamentally change the strategic situation (A9, A10). The United States has responded to the severe tensions with China by stepping up military cooperation with Japan and Taiwan, especially in the wake of a series of the severe militarized crises. Alarmed by the developments and worried about the consequences of Chinese victory over U.S. power, Japan has signaled its full support to U.S. operations to defeat Chinese aggression (A4).

Having judged that the current situation has grown intolerable, Chinese leaders have directed preparations for military action. Looking for a pretext, they seize on a suspicious incident to issue an ultimatum to Taiwan that they fully expect Taipei to reject (A13). When the deadline passes, Beijing directs military operations to unify with Taiwan and to defeat U.S. and Japanese intervention.

### ***China-Taiwan Conflict: Scenario to Support Political-Strategic Decisions***

The sample scenario to support political-strategic decisions centers on U.S. deliberations on whether and how to respond to conflict between China and Taiwan. For scenarios that explore such political-strategic decisions, detailed and realistic depictions of key nonmilitary factors can provide a more rigorous structuring of incentives for decisionmakers. The details of the road to war should conform to the logic of the assumptions or to common knowledge about the adversary and situation of interest. Details that are not strictly based on these evidentiary sources should be viewed as optional, modifiable, or disposable.

*Road to war.* The current situation follows years of strategic trends that have yielded deepening tensions, a proliferating array of disputes, the multilateralization of disputes, hardening of perceptions, and repeated militarized crises. Taiwan may have been a priority for Chinese leaders, but the overlapping tensions with the United States, Japan, and other rivals has driven Beijing to perceive a confluence of military threats.

*Strategic trend.* The main geostrategic trend underpinning the rising risk of conflict is the intensifying rivalry between China and the United States and is fundamentally driven by China's challenge to U.S. military and economic primacy (A1). Despite both the United States and Japan's having designated China a "strategic competitor" and enacted policies to protect U.S. technology and industries in 2017–2018, the gap in national power continued to narrow. China has succeeded in enacting sufficient reform to get its debt problem under control, bolstering its economic growth. Moreover, surprising successes in industrial policy has allowed China to dominate several key advanced technology sectors, enabling some hi-tech businesses to pull ahead of their U.S. competitors. And after overcoming initial missteps, Beijing's Belt and Road Initiative (BRI) began to yield economic fruit, opening markets and further adding to growth. China's GDP has surpassed that of the United States in 2022 in absolute terms, and commentators worldwide debated which country had the most advanced economy (A8a). At the same time, persistent political polarization and division amid slowing growth has sapped the will of the United States to shore up its dwindling military advantage in Asia. Polls indicate that a large number of people in countries throughout Asia and the world believe China has surpassed the United States as the most powerful military in the region, and this has fueled distrust and fear in Washington, D.C., and confidence and impatience in Beijing (A8b). Over the same period, Japan's economy suffered severe losses in key industries at the hands of more

competitive Chinese firms. Economic stagnation combined with alarm about Chinese power drove Tokyo to identify China as a main source of threat. Other countries like Vietnam and India regarded the shifting balance of power toward China with apprehension and deepened multilateral relations to balance against China accordingly. These strategic trends fuel a deeply rooted and persistent sense of threat and competition between China and its rivals. The outcomes of each severe militarized crisis have consistently accelerated these trends (A4).

*Taiwan as a dispute issue.* Taiwan's persistent resistance to Chinese demands for gestures toward unification has proven to be one of many sources of cross-straits irritation (A2). Beijing's efforts to coerce Taipei through military exercises, diplomatic isolation, and economic sanctions and to influence operations only inflamed popular sentiment and accelerated support for pro-independence political leaders, even though those same leaders have largely avoided provocative gestures that could provide an obvious pretext for Chinese military action (A7). Beijing's demands for talks about even incremental gestures toward unification were repeatedly rebuffed by Taipei. In response to Beijing's coercive behavior, however, Taiwan's leaders eagerly sought U.S. and Japanese help (A8). The United States, eager for leverage against its chief rival, China, pledged additional arms sales and other high-profile gestures of support for Taiwan, even while it ostensibly upheld the "one China policy." A subsequent history of recrimination and criticism between China and Taiwan and the United States over perceived slights and near-incidents eroded trust over time and eventually left both sides convinced that the other could no longer be trusted (A2, A3). U.S. officials routinely dismissed Beijing's actions as "coercion" and "bullying," while Chinese officials dismissed U.S. claims of adherence to a "one China policy" as a "joke." Also seeking leverage for its own rivalry, Tokyo warmed relations with Taiwan as well, taking actions that irritated Beijing. In private, Chinese authorities discussed among themselves how U.S. and Japanese support to Taiwan had proved their commitment to undermining China (A8, A3, A10).

*Proliferating array of disputes.* Disputes have proliferated in variety and type between China and its rivals, with frequent breakdowns in diplomatic mediation efforts. Regarding China and Taiwan, tensions have grown over explosive reports about Chinese efforts to bribe Taiwanese officials and sponsor violent gangs to beat up and intimidate outspoken critics of Beijing (A2). Taipei's anger has grown over China's success in undermining the island's most advanced technology sectors, leading to years of stagnation and an increasingly pessimistic economic outlook (A10). Continued feuding over Taiwan's dwindling diplomatic allies, cyber espionage, influence operations, and other issues have resulted in breakdowns in informal channels of communication and occasional cancellations of exchanges and disruptions in cross-strait trade (A2).

Regarding China and its rivals—the United States and Japan—Chinese espionage, recruitment of scientists and experts, and economic success at the expense of leading U.S. and Japanese industries infuriated policymakers in Washington and Tokyo and exacerbated fears and resentment in those countries (A2, A8). Trade and investment between China and the United States declined significantly, and observers no longer debated the reality of an increasingly "bifurcated" global economic order divided by divergent Chinese and U.S. trade, investment, and technology norms and rules (A8a). Arguments intensified over issues of espionage, influence operations, leadership in institutions, and hot-spot issues with no resolution (A2). Throughout each political crisis and controversy, diplomatic efforts to ease tensions frequently failed, leading to recrimination and frustration on all sides. The breakdowns and stalemates following each political crisis further fueled threat perceptions and demands for competitive

policies (A7). Key official bilateral dialogues between China and its rivals had fallen dormant for years.

*Multilateralization of disputes.* Tensions between China and Taiwan overlapped with feuds between China and several rival states, including the United States, Japan, and others. A security dilemma quickly accelerated as tensions occasionally spiraled into high-profile, controversial political incidents, the outcome of which drove China and its rivals to trade inflammatory accusations, mobilize political supporters, and pursue military buildups and alliance-building actions (A5, A6). Vietnam and India, apprehensive about Chinese behavior and shocked at the serial crises, expanded military contacts with Tokyo and Washington, with Indian surveillance aircraft routinely harassing Chinese vessels in the Indian Ocean. On the China-India border, troops continue to maneuver and posture, although to date both sides have avoided a fatal clash. China retaliated with its own harassment of Indian ships operating in China's near seas. Accordingly, Chinese-Indian relations have experienced severe strains. Sensing an opportunity, Vietnam has also stepped up its feuds with China, leading to several serious incidents in the South China Sea. As a result, Vietnam has increased its military engagement with the United States and Japan, China has canceled numerous BRI projects, and relations between Hanoi and Beijing have plummeted into a deep freeze (A8).

*Rivalry dynamic.* In China as well as in the United States, Japan, and Taiwan, large majorities supported the idea that the rival country is a hostile "enemy." Chinese officials routinely denounced Taiwan as well as Japan and the United States in blistering terms and demanded concessions on the broad and growing range of disputes. Chinese leaders and the public blamed the United States for the slowdown, and the narrative of U.S. efforts to "contain" China has dominated public discourse for years (A3). Perceptions of the United States as a hostile enemy have become entrenched as well, with TV and movie programs frequently depicting the United States as a villain out to destroy China (A7). U.S., Taiwan, and Japanese officials and the public responded in kind, denouncing Chinese leaders for various outrages and warning of the dangers of a revanchist, aggressive China (A7, A8). Hollywood in turn has also found that the production of movies and TV shows that depict China as a new geostrategic threat and adversary has been lucrative (A7). Polls show that large majorities in Taiwan reject "unification" at any time and that there is growing sentiment in favor of independence. In the United States, leading officials compete for more hard-line policies against China to the applause of a frustrated and embittered public (A7). Sensational books peddling conspiracy theories about the United States' intent to destroy China become best sellers in the mainland. In the United States, high-profile arrests of Chinese agents attempting to bribe U.S. officials, steal secrets, and physically assault dissidents has sparked not only condemnation by the highest levels of the U.S. government but also new legislation restricting Chinese commercial and diplomatic access to the country, with China retaliating with its own restrictions (A3).

*Arms racing and alliance building.* Symptomatic of the deepening tensions, countries have responded to the increasingly unsettled international situation by building arms and alliances. To counter China's challenge, the United States has leaned heavily on alliance building with Japan, Australia, and occasionally India to shore up its leverage as well as hefty increases in defense spending on weapons systems that target China (A5, A6). Japan and other countries have reacted with alarm to the nationalistic, aggressive mood in China by stepping up efforts to build up the military and strengthen alliances and partnerships with other potential antagonists of China, such as the United States, India, Australia, and Vietnam. China in turn

announced a closer partnership with Russia and Iran, although the actual security commitments of each country to one another remained unclear (A5, A6).

*Serial militarized crises.* Tensions between China and the United States routinely extend to hot spots around the world. For example, an explosive media report claimed that China backed armed insurgents fighting U.S. forces in a Middle East country that resulted in the deaths of U.S. servicemembers, infuriating the American public. Meanwhile, Chinese news reports claimed U.S. spy agencies funded a bloody attack by shadowy nonstate groups on a Chinese compound in Africa, resulting in heavy casualties among oil workers and angering the Chinese public (A4, A9). Both sides denied the reports, but neither side believed the other (A2). More ominously, several severe militarized crises erupted along China's periphery (A4). The sum effect of these events has been to greatly aggravate perceptions of threat and hostile intentions. In one incident, a Chinese fighter plane shot down a Taiwanese military aircraft that neared the center line of the strait. Massive demonstrations erupted on both sides, and a prolonged diplomatic crisis ensued. A second, more severe crisis erupted months later when a Chinese coast guard cutter collided with a Japanese coast guard ship near the Senkaku Islands, resulting in loss of life on both sides (A4). Both sides blamed the other for instigating the crisis, and diplomatic relations plummeted. Afterward, Tokyo and Beijing ordered military escorts to closely accompany coast guard ships near the islands, and the United States stepped up its naval patrols near the islands as well. In a third crisis, the Philippine hull at Second Thomas Shoal finally collapsed in a storm. Seeking in part to humiliate the United States, Beijing directed Chinese ships to arrive quickly at the scene and set up a temporary post on the wreckage of the former naval ship, the BRP *Sierra Madre*. U.S. naval ships soon appeared alongside Philippine vessels, however, and demanded that the Chinese depart. A tense standoff ensued as more combatants arrived from both sides. In the end, however, Beijing backed off and recalled its sailors and ships from the scene. U.S. officials and media gleefully trumpeted "China's retreat," and Western commentators mocked and derided the People's Liberation Army (PLA). The Chinese public was infuriated by the humiliation, and protests erupted around the country. Chinese leaders bitterly stewed and vowed to never again allow such a failure (A4). Subsequent protests in China resulted in the beating of a handful of American citizens, resulting in searing condemnation of China by the U.S. President and in legislation further targeting China as a threat (A2, A3, A4). The outcome of each militarized crisis compounded the effects of preceding incidents, dramatically accelerating the trends of threat perception, competitive behavior, arms racing, and alliance-building activity. As the Asia-Pacific region churned in perpetual instability and world economic growth suffered, leaders in multiple capitals began to question the sustainability of the current situation.

### **Precipitating Event**

In the wake of the incident at Second Thomas Shoal, Chinese leaders became increasingly pessimistic (A10). Advisers warned that China's opportunity to realize its ambitions was gradually slipping away. Countries in the region had begun to lose respect for Beijing, and intelligence reports indicated U.S. officials were becoming confident about their prospects, despite a faltering military advantage and declining status as global lead economy. Countries that had once backed Chinese power appeared to be having second thoughts, and U.S. pressure had recently achieved surprising successes, resulting in the cancellation of several important BRIs in Southeast Asia by the host countries (A10). Chinese officials fumed in private at Washing-

ton's efforts to deny Beijing's rightful rise and to strangle it through containment. U.S. collaboration with Japan and Taiwan had not only energized the Taiwan independence movement; it had also made the possibility of an anti-China alliance appear increasingly inevitable. Unless China took some dramatic action to reverse current trends, the future appeared to offer the prospect of a weaker China, contained and encircled by hostile powers, a permanently separated Taiwan, outbreaks of rebellion in western provinces, and instability within China (A10). Some advisers spotted an opportunity, however, in the deteriorating U.S. military posture in Asia. They also noted that Taiwan's efforts to bolster its military had scarcely improved its thoroughly dilapidated force. China appeared to have a significant military advantage in the Taiwan Straits over the combined forces of Taiwan, the United States, and Japan, although the advantage would likely prove fleeting if any ensuing conflict extended long enough for the United States and Japan to marshal all available forces (A11). If China could quickly and thoroughly devastate Taiwan forces, the negative trends might be reversed. Ideally, the U.S. and Japanese forces would not intervene, in which case Beijing could inflict humiliation on the United States and Japan as they watched their partner suffer the PLA's wrath. However, military leaders assessed U.S. and Japanese involvement to be almost certain, and they urged the civilian decisionmakers to consider the upsides of a broader conflict. Swift victory over Taiwan and a devastating attack on U.S. and Japanese forces would unquestionably establish China's reputation as a global power and clarify the reality of U.S. and Japanese weakness. Victory could elevate China in the eyes of all its partners around the world, possibly reenergizing its leadership of the BRI and other global projects. A devastating defeat would cost the United States and Japan enormous sums to rebuild their militaries, and the persistent weaknesses in those economies could leave decisionmakers with little alternative but to sue for peace, thereby opening an opportunity to reset great power relations on new, truly equal terms (A12).

Even in this fevered climate, however, top Chinese leaders furiously argued about the risks of major war. All Chinese leaders agreed that they hoped to deter the United States from intervention and avoid a major war if possible. The dangers of escalation could not be taken lightly, and there was no guarantee the United States and Japan would give up after an initial battle. Still, Chinese leaders agreed that the current situation had grown intolerable, and that inaction would only bring a slow, certain death to the country. In closed-door discussions, intense debate eventually gave way to consensus, and the remaining few who objected were quietly purged. Beijing quietly directed preparations for the possibility of conflict and began looking for a pretext for action.

The actual event that most immediately precipitated the Chinese use of military force appeared almost irrelevant to the ongoing tensions about Taiwan's resistance to talks about unification. The timing of a seemingly small-scale event proved critical (A.13). In the wake of a suspicious death of a top Chinese official, authorities quickly blamed the death on Taiwan "saboteurs," naming in particular a Taiwan individual captured on video near the scene of the death. Taiwan immediately rejected the accusation as a false accusation manufactured to humiliate the island. After Chinese government officials made the accusation, the Taiwan citizen fled, but cancellations in cross-strait flights meant he got only as far as Jinmen. Chinese officials refused to let anyone leave the island until the individual was handed over, sparking a serious crisis. Beijing warned it would send an armed unit to the island to seize the individual by force if necessary (A13). Taipei denounced China's actions as an aggressive "act of war." The United States also rejected the accusation as a "fraud" and denounced China for "aggression," calling on its allies to enact sanctions and demanding China withdraw its "blockade"

immediately. A vocal segment in the U.S. population demanded aggressive actions to “punish” China, but U.S. officials hesitated at the prospect of major war when intelligence analysis indicated large-scale troop movements that were suggestive of preparations for a major attack (A2, A9). However, U.S. decisionmakers began to feel increasingly constrained by polls indicating high levels of support for “strong action” against China, now widely reviled as an implacable enemy (A2, A8a). Similarly, China’s public roared its approval of such a tough stand against Taiwan, the United States, and Japan, and a surge of patriotic fervor rolled over China. Both sides issued defiant statements and ultimatums. Half-hearted diplomatic efforts to resolve the impasse predictably failed, and U.S. leaders directed preliminary moves to prepare for the possibility of conflict (A12). With the possibility of war looming, decisionmakers in all capitals deliberated on the next step.





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