

RIETI BBL Seminar Handout



Strategic Scenario Analysis for Economic Security: Enhancing corporate resilience through tabletop exercises (TTXs)

January 17, 2025

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Senior Fellow, Futures Lab, International
Security Program, CSIS



Strategic Scenario Analysis for Economic Security

*Enhancing Corporate Resilience through Tabletop
Exercises (TTXs)*

January 2025





Nice to meet you! I am a wandering professor, researcher, and soldier who helps a mix of governments, Fortune 500 companies, and international organizations solve complex problems defined by rapid change and high levels of uncertainty associated with geopolitics, economics, and technology.



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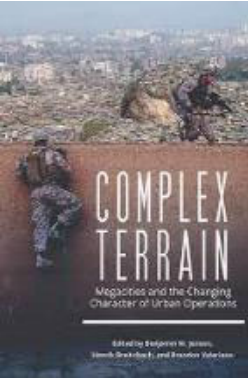
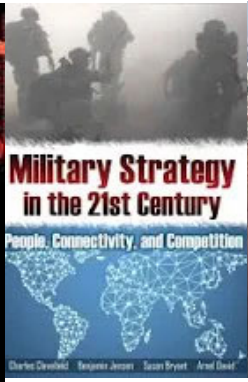
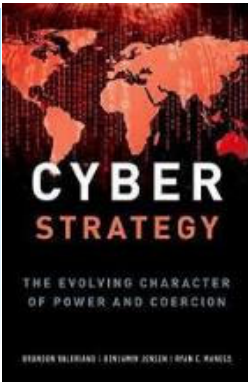
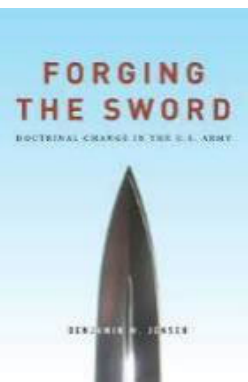
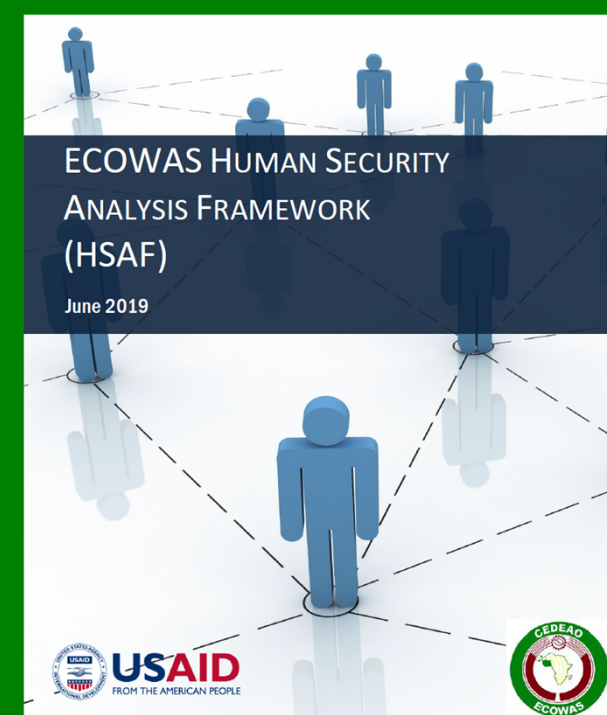
Benjamin Jensen

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EXPERTISE: Afghanistan, Africa, Asia, China, Cybersecurity and Technology, Defense Strategy and Capabilities, Defense and Security, Europe, Human Rights, Human Security, International Development, Long-Term Futures, Military Technology, NATO, Space

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Overview

In today's interconnected global economy, corporate resilience demands a proactive approach to navigating complex challenges, particularly those arising from economic and cyber threats related to great power competition. This talk explores strategic scenario analysis and tabletop exercises (TTX) tailored for Japanese companies to bolster their economic security posture. Drawing insights from various scenarios, participants will gain an understanding of how nations prepare for and counter integrated economic and cyber warfare campaigns. Through real-world examples, such as graduated economic pressure campaigns and acute crises involving critical infrastructure attacks, this session will demonstrate how companies can adapt strategic defense mechanisms to safeguard operations and supply chains. Key topics include identifying economic interdependencies, enhancing cyber resilience, and fostering collaboration between public and private sectors to mitigate risks. By integrating lessons from geopolitical case studies with actionable frameworks for resilience, this talk aims to empower corporate leaders to anticipate, withstand, and thrive amid emerging economic security challenges.



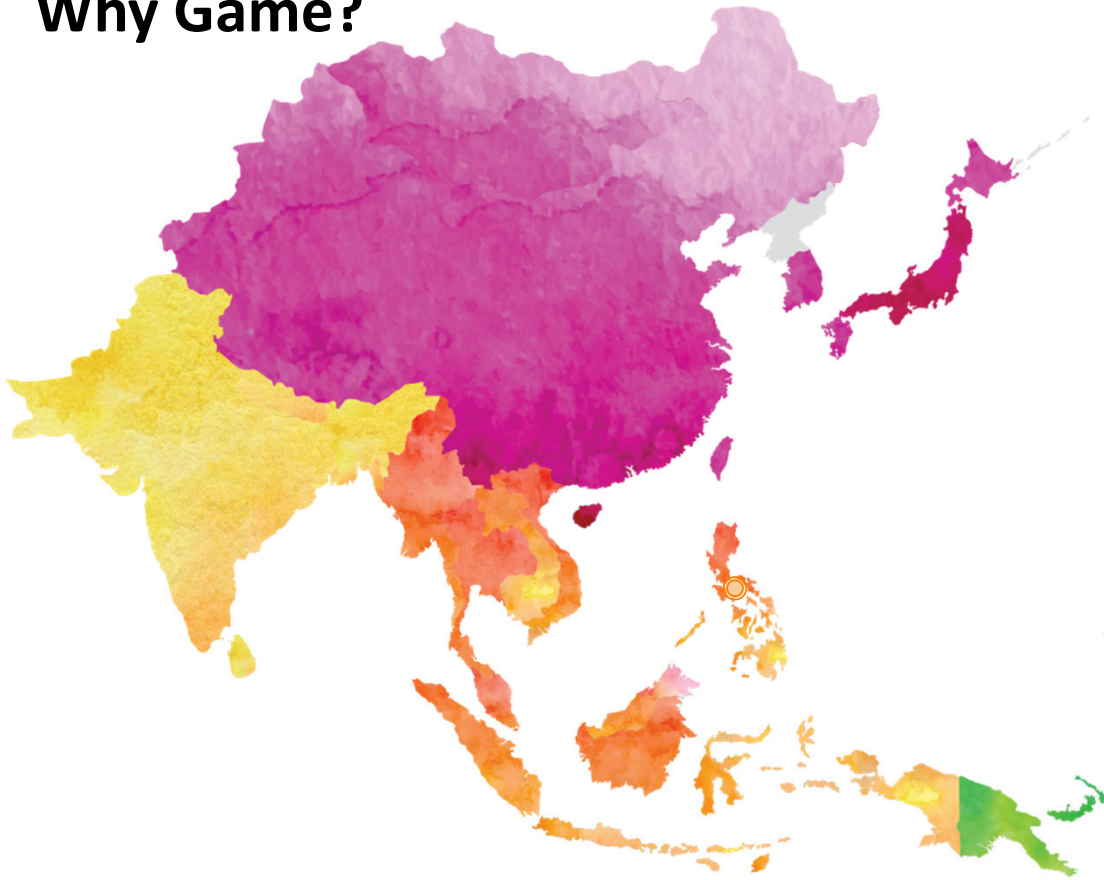
Why Game?



Designing Games Analyzing Economic Security

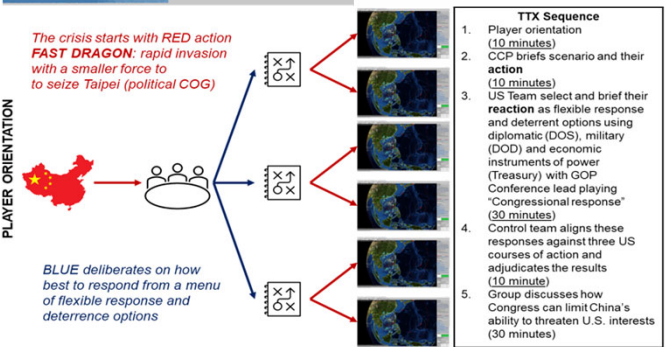


Why Game?





Games Help Visualize and Describe Complex Interactions

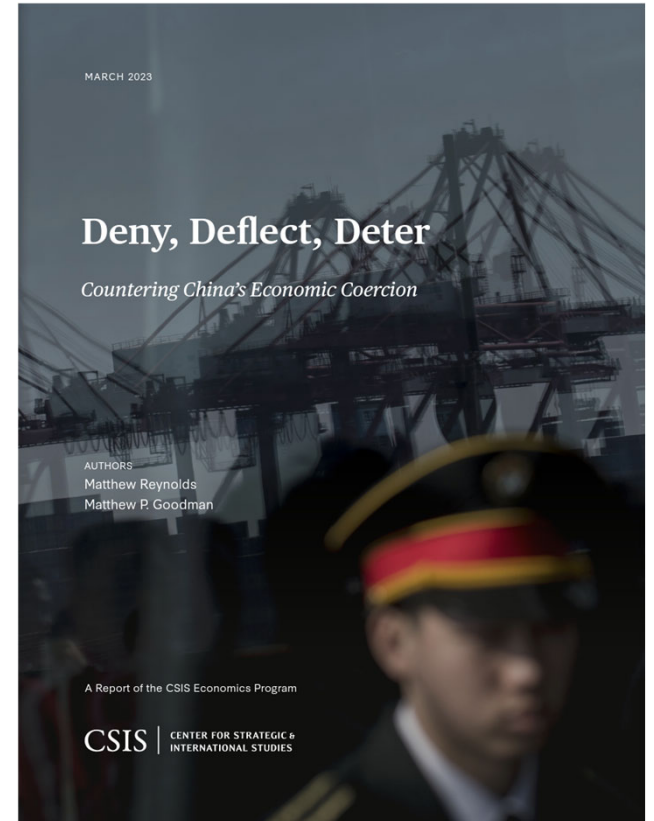


"A series of interesting decisions"



HOW LARGE-LANGUAGE MODELS CAN REVOLUTIONIZE MILITARY PLANNING

Assess risk and opportunities



Visualize and describe opportunity costs



Good Games Help Players Analyze Interactions Over Time



**WHEN SYSTEMS FAIL:
WHAT PANDEMICS AND
CYBERSPACE TELL US
ABOUT THE FUTURE OF
NATIONAL SECURITY**



**THE FUTURES PROBLEM:
WHY BIG ORGANIZATIONS
HAVE PROBLEMS MAKING
LONG-TERM FORECASTS
AND WHAT TO DO ABOUT IT**



DECEMBER 2024

Competition in the Shadow of Technology

AUTHORS
Benjamin Jensen
Yasir Atalan
Can Mutlu
Jose M. Macias III

A Report of the CSIS Futures Lab

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OCTOBER 2023

CISA's Evolving .gov Mission

Defending the United States' Federal Executive Agency Networks

AUTHORS
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A Report of the CSIS Task Force on CISA's Evolving .gov Mission

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Understanding Complexity

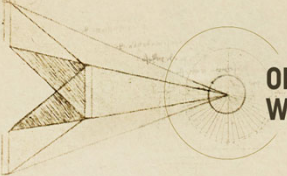
Red Teaming

Modeling Interactions

Alternative Futures



Good Games Model Systems and Help Players Think About Risk and Resilience



ON FUTURE WAR

Rethinking Risk in Great Power Competition

By Peter C. Combe II, Benjamin Jensen, and Adrian Bogart


In the Future . . .

- Integrated deterrence and active campaigning will create new planning requirements for the U.S. Department of Defense (DOD). Great power competition and efforts to achieve a position of advantage short of triggering dangerous military confrontations will push the DOD to explore alternative methods for assessing risk to force and risk to mission.¹
- The national defense community will view risks as interdependent and adjust contingency plans according to real-time changes in the global security environment. A new risk assessment methodology that accounts for changing circumstances, uncertainty, and interdependent risks will enable the DOD to understand how militarized disputes and crises in one theater of operations create additional risks in other theaters.
- These new approaches to globally integrated campaigning will integrate Bayesian reasoning and data science to modernize strategic analysis. The DOD will better integrate human capital, technological, and procedural improvements that embrace probabilistic and inductive reasoning. A Bayesian approach to risk assessment and communication will allow policymakers to view risk globally and holistically while having real-time updates to risk assessments that help combatant commanders determine how to reallocate resources across combatant commands (CCMDs) and invest in new capabilities.



Targeting Taiwan: Beijing's Playbook for Economic and Cyber Warfare

By Craig Singleton, RADM (Ret.) Mark Montgomery, and Dr. Benjamin Jensen
With contributions from Elaine Dezenski, Josh Birenbaum, and Anesia Ficker
Research Memo | October 4, 2024



Energy Security and the U.S.-Philippine Alliance

Strategies for a Secure Transition

By Harrison Prétat, Yasir Atalan, Gregory B. Poling, Benjamin Jensen
OCTOBER 2024

THE ISSUE

- The Philippines' fragile energy outlook threatens to undermine efforts to secure its strategic autonomy vis-à-vis an assertive China.
- A tabletop exercise held at CSIS this spring with U.S. and Philippine participants explored the strategic implications of different energy investments and their vulnerability to disruption.
- Bringing online renewable and clean energy sources is an imperative to providing for Philippine energy security in the long term, but fossil fuels will have a critical stabilizing role in the near term.
- The United States can support its ally through enhanced alliance programming, technical assistance, and new approaches to interagency cooperation.

INTRODUCTION

AN ALLIANCE REBORN

The U.S.-Philippine alliance is experiencing a renaissance. Driven by unrelenting pressure from Beijing on Philippine activities in the South China Sea, Manila has pushed forward with Washington on a range of measures to modernize the alliance and give substance to the commitments outlined in the 1951 Mutual Defense Treaty. The once-stalled Enhanced Defense Cooperation Agreement (EDCA)—which provides for U.S. construction of joint facilities, pre-positioning of equipment, and rotational deployment of troops at designated Philippine military sites—has been given new life amid a flurry of military-to-military cooperation, and was expanded from five to nine sites in 2023. This July, the United States quintupled foreign military financing to the Philippines, announcing that \$500 million would be made available in the 2024 fiscal year by the Indo-Pacific Security Supplemental Appropriations Act. And in April 2024, recognizing that economic independence plays an equal part in securing the Philippines' strategic autonomy, leaders of the United States, the Philippines, and Japan announced the Luzon Economic Corridor, an initiative under the G7 Partnership for Global Infrastructure and Investment (PGI) to accelerate coordinated investments in high-impact infrastructure connecting four locations: Subic Bay, Clark Freeport and Special Economic Zone, Manila, and Batangas.

But despite substantial progress, the alliance still faces tremendous challenges in securing the Philippines' freedom from coercion. The country is on the wrong end of a significant capacity gap with China in the South China Sea. Outmatched by tens of China Coast Guard ships and hundreds of Chinese maritime militia vessels, the Philippines struggles to maintain access to outposts in disputed areas,



The Waterfall's Shadow in the Mekong Region

Insights on Water Programs and Infrastructure Competition in the Twenty-First Century

By Benjamin Jensen, Daniel F. Runde, and Thomas Bryja
SEPTEMBER 2023

THE ISSUE

- The United States and its network of democratic partners and allies increasingly find themselves struggling to safeguard the rule of law, free markets, civil liberties, and human security in countries most at risk from climate change and its impact on water security.
- A network of authoritarian states led by the Chinese Communist Party (CCP) are using infrastructure investment programs like the Belt and Road Initiative (BRI) alongside gray zone campaigns to gain access and influence, often in areas most at risk of further climate shock and water insecurity, particularly in the Mekong region.
- As a result, continuing to develop water strategies offers a viable means of integrating development and deterrence to address core human security challenges and deny further authoritarian access and influence across the world's most climate-stressed societies.

Taiwan is not the only flash point in the growing contest between the United States and China. As the Chinese Communist Party (CCP) exports its authoritarian model for governance and development, it creates new arenas for competition beyond the military sphere. From the Belt and Road Initiative (BRI) and infrastructure investments to the use of political warfare, Beijing is creating a new sphere of influence. Through a combination of trade, diplomacy, development, and coercion, the CCP is securing key terrain in a new geopolitical race. This terrain is centered on critical transportation and trade corridors beyond the traditional focus on sea lines of communication vital for securing its trade and power projection. This logic extends beyond the sea to river and ground lines of communication. For decades, China has been using multiple instruments of power to gain access and influence in the Lower Mekong River Basin. Over 245 million people live in the Mekong region, and this population is projected to grow by as much as 100 percent by 2050. Trade between China and countries in the Lower Mekong has grown to over \$400 billion, and Beijing uses its economic and diplomatic influence to gain military access, including increasing its regional force posture and building secret military bases. The Lower Mekong region, which includes Vietnam, Thailand, Laos, Myanmar and Cambodia, is one of the most vulnerable to climate change, with an estimated 55 percent of the Mekong Delta population likely to be affected in the coming years. China funds dam projects in multiple countries that complicate water management and exacerbate environmental stress. The region is

Risk Analysis

Country Risk

Sector Analysis

Regional Risk



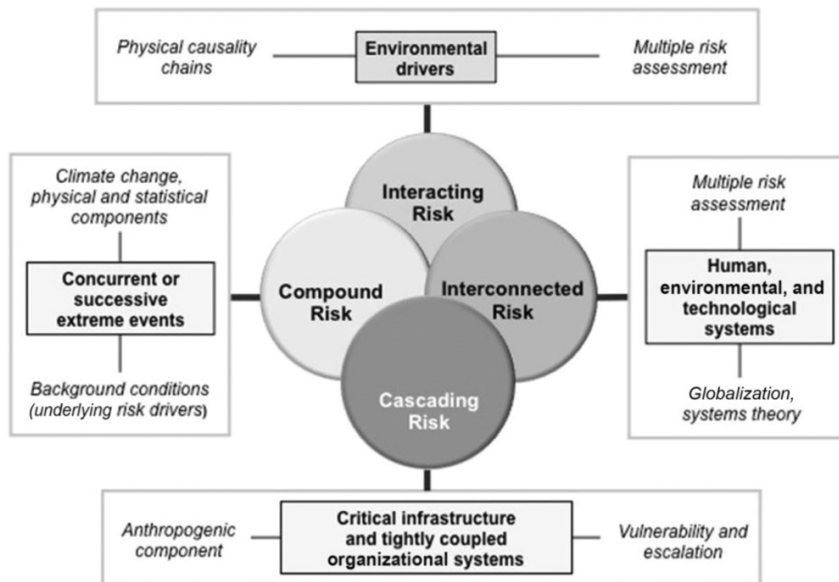


Designing Games to Analyze Economic Security





Our First Corporate Story: **Understanding Cascading Risk**



1. Interconnected Systems: Cascading risks occur in interconnected systems where the failure or disruption in one component propagates through dependencies to affect other components.

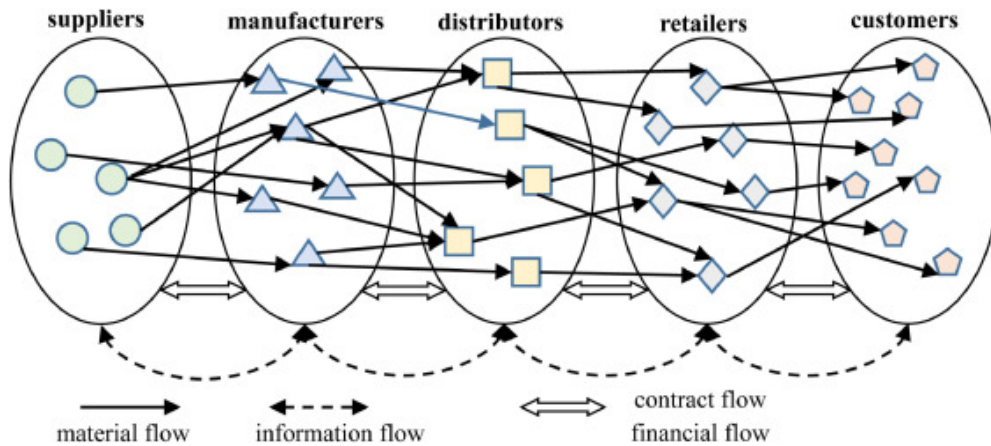
2. Amplification of Effects: The initial event may have a relatively small impact, but as the effects cascade, the overall consequences can grow disproportionately.

3. Temporal Dimension: Cascading risks unfold over time, with delays between the initial risk and subsequent impacts.

4. Complex Causality: The chain of events often involves nonlinear interactions, feedback loops, and complex causality, making prediction and mitigation challenging.



Our Second Corporate Story: **Analyzing Complex Supply Chains**



- 1. Mapping and Understanding Interdependencies:** Identify and map all critical nodes, links, and interdependencies in the supply chain to understand how disruptions can propagate.
- 2. Assessing Vulnerabilities and Single Points of Failure:** Pinpoint and assess vulnerabilities or single points of failure that could cause cascading risks across operations.
- 3. Scenario Analysis and Risk Simulation:** Use scenario analysis and simulations to predict cascading effects of disruptions and evaluate potential operational impacts.
- 4. Building Resilience and Contingency Plans:** Develop strategies like supplier diversification, inventory buffers, and robust contingency plans to mitigate cascading risks and ensure operational continuity.



Some Guiding Principles

- Simple rules + good players = key insights
- Move with the terrain: *short, sharp, and meaningful games stick*
- Data capture is critical: *think like a scientist but play like a child*
- Don't over engineer your game: *let the players bring the complexity*



Conclusion

