



SOLVING PROBLEMS
FOR A SAFER WORLD®



STRATEGIC ECONOMICS: OPTIONS FOR COMPETITIVE ADVANTAGE

EVA-MARIE ETZEL, CHRIS BASSLER, MARIN HALPER, ANTHONY VINCI, PAVNEET SINGH, DAWN MEYERRIECKS,
NADIA SCHADLOW, AND ISAAC HARRIS

Table of Contents

INTRODUCTION 3

GRAND STRATEGY 4

 American Grand Strategy in Practice 4

 Containment 4

 Globalization 4

 Responding to the Chinese Communist Party 5

STRATEGIC ECONOMICS 7

 Principal Areas of the Economic Domain. 7

 Economic Instruments 7

 Operational Concepts 8

 Influence Energy Flows 8

 Control Financial Interchange and Communication. 9

 Shape Import and Export Flows 9

 Shape the Economic Narrative 10

 Shape the Defense Industrial Base 10

 Economic Campaign Plans 11

 Campaigns Across the Competition Continuum 11

RECOMMENDATIONS 13

 1. Create a National Security Economic Strategy 13

 2. Build Economic Expertise, Awareness, and Partnerships 13

 3. Establish Economic Capabilities and Constructs for Whole-of-Nation Integration 14

CONCLUSION 16

APPENDIX A: STRATEGIC ECONOMIC INSTRUMENTS 17

APPENDIX B: DOD PLANNING DOCTRINE AND POTENTIAL APPLICATION
TO STRATEGIC ECONOMICS 21

 Operational Planning 21

 Supporting/Supported Considerations 22

REFERENCES 23

INTRODUCTION

The United States is engaged in strategic competition with the People's Republic of China (PRC), a contest that has escalated as the PRC seeks to shape the international economic and political order. Over the past two decades, China's rise has challenged American economic, technological, and military advantage, adversely affecting U.S. interests.

While the United States commits significant resources to compete in the military domain, it has not fully developed a strategic vision, the necessary capacity and capabilities, or integrated cross-domain concepts to advance American interests, nor has it executed a strategy that synchronizes economic and military concepts toward a comprehensive national security strategy. U.S. overreliance on China for critical materials, coupled with the erosion of the American domestic manufacturing sector, amplifies national security risks. Furthermore, China continues to employ economic coercion against numerous countries worldwide. To effectively compete, the United States must leverage the unique strengths of its own economy against China's centralized, integrated economic and national security system.

The United States cannot resort to autocratic-style resource consolidation, but the U.S. government (USG) can and should improve the coordination of its economic and national security instruments, a practice that has atrophied since the end of the Cold War. Better alignment and coordination within the current American system is necessary to synchronize available means to achieve strategic ends for security and economic prosperity. In this era of intensifying competition, the United States must craft integrated approaches that optimize



all instruments of American national power. Strategic implementation of economic statecraft can advance foreign policy and national security objectives. Now, more than ever, American decision makers must integrate multiple economic and financial instruments into national security policies to deter adversarial actions and maintain strategic advantage.

This paper discusses the historical context motivating U.S. grand strategy since the Cold War and the resulting implications of the interconnected nature of global economies. It provides an overview of the economic domain and its principal instruments, demonstrates how those instruments nest under operational concepts within economic campaign plans, and offers recommendations for gaining advantage in the current geopolitical environment.

GRAND STRATEGY

Grand strategy outlines a nation's long-term objectives and maps the ways it uses its available resources to achieve those goals. Grand strategy encompasses all aspects of national power to achieve a desired outcome, including diplomacy, information, military, and economics (and, more expansively, trade, finance, development assistance, information, and law¹) and accounts for the interplay between various sources of national power.

For the United States, the *National Security Strategy* (NSS) most closely resembles the articulation of a grand strategy. It sets forth strategic goals, identifies priorities, and outlines a foundation for policy implementation. The NSS also provides direction for the development of subordinate policies like the *National Defense Strategy* (NDS). However, American grand strategy has focused primarily on military and diplomatic levers of power, with less explicit and cohered approaches for other dimensions of national power, particularly economics. This focus is partly due to the complexity of the landscape. While the Department of Defense is the predominant player in the military domain, at least five executive departments and multiple non-executive branch-controlled offices are involved in the economic domain. These Departments and Agencies largely retain responsibility for shaping sectors critical to U.S. national and economic security; however, they do not directly create or control markets.

American Grand Strategy in Practice

Containment

During the Cold War, the U.S. grand strategy centered on containing communism, mainly by assisting in the development of robust political, economic, and social systems that aligned with American interests. The United States' superior economic power, further bolstered by international economic institutions originating from Bretton Woods, allowed it to outpace the Soviet Union, enhance its national prosperity, and advance its military and technological capabilities. These efforts, coupled with Russian missteps, led to the political and economic bankruptcy of the Soviet Union, forcing reform and ultimate collapse.

Globalization

In the post-Cold War era, the United States adopted globalization as its de facto grand strategy, emphasizing integration with other economies to promote international stability. While still an emerging economy, China was approved as a World Trade Organization member, further increasing

levels of global interdependence. Relying primarily on the liberal international order to shape the geopolitical environment, instruments of the United States' economic toolkit were not well exercised and significantly atrophied during this period. As sanctions became the USG's default economic instrument during times of crisis or conflict, systematic thinking and understanding of the full range of economic options largely faded from institutional memory.

Responding to the Chinese Communist Party

In today's era of competition, neither globalization nor containment offers a suitable framework for American grand strategy.

The Chinese Communist Party's military-civil fusion is "an aggressive, national strategy"² designed to provide China with superior artificial intelligence (AI), surveillance, biotechnology, and military capabilities. The approach deliberately comingles the strengths of the public and private sectors. China also employs government subsidies in nations around the world to obtain strategic assets, such as ports and mines, and to engender conditions of dependency

from new partners. China's comprehensive national power (CNP) approach to geopolitics seeks to combine economic, military, diplomatic, and informational initiatives to displace the United States³ and to create an international order that favors Chinese national interests and values.⁴ China's application of CNP, direction of economic power, use of economic coercion, and spread of global influence present serious challenges to U.S. and allied economic and national security.

To effectively compete, the United States must leverage economic power within its grand strategy. First, the USG requires a deeper understanding of strategic economics, the actors operating across the American and global economic landscape, and the specific instruments available to both government and private sector entities to shape their behavior. Second, this understanding should drive the development of operational concepts and campaign plans that link resources and actions to specific objectives. Finally, policymakers need expertise and processes to deploy operational concepts as part of an integrated campaign to support grand strategy, as visualized in Figure 1.



FIGURE 1. NESTED RELATIONSHIPS FOR ECONOMIC POWER TO DELIVER STRATEGIC EFFECTS ACROSS THE COMPETITION CONTINUUM

Strategy development and implementation must occur now for the United States to ensure that Western norms and American values continue to serve as the foundation for the international order. Significant policy modifications are necessary to fully incorporate China's non-Western economic practices into U.S. strategic considerations. Adopting a grand strategy that "derisks" American economic and trade reliance on competitors will also require incentivizing allies and partners. Any level of economic decoupling in key strategic sectors will be difficult and could create cascading effects across global economies. However, even a narrowly scoped decoupling effort requires clear political will and a herculean effort to prepare the domestic and allied economies through efforts like stockpiling and friend-shoring. Ultimately, a successful strategy will require an integrated approach that harnesses all levers of national power across the whole-of-nation, develops cross-domain options for competition and conflict, and cultivates allied and partner strengths.⁵

STRATEGIC ECONOMICS

*Strategic economics is a deliberate effort to create and use economic effects and power to deliver geopolitical competitive advantage for the United States and its allies and partners. It can be employed to either amplify the United States' competitive edge or diminish the advantage of other international state and non-state actors.*⁶

Principal Areas of the Economic Domain

The United States can employ strategic economics across the following principal areas in the economic domain:

- **Finance and Capital Access:** Capital, including all forms of money and credit, and the ability to move money and credit
- **Infrastructure and Assets:** Both hard and soft structures, including roads, utilities, and telecom networks, across domestic and international holdings
- **Manufacturing, Production, and Associated Supply Chains:** Sources and means of raw material harvesting and production, including mines, farms, and processing facilities, as well as product stockpiles and the transportation components necessary for consumption
- **Technology and Information:** Technology, such as semiconductor components, AI, or software, including intellectual property elements of design and production, and the underlying information economy from entertainment to social media
- **Human Capital and Talent:** Trained populace underpinning economic activity, which relies on formal and informal education provided by organizations like universities and trade schools.

Economic Instruments

A strategy that employs strategic economics will require the combination and deliberate sequencing of economic instruments within these five principal areas. The strategic economic toolkit encompasses a diverse range of instruments. These instruments span several dimensions, including trade; finance and investment; resource management and supply chain; diplomacy and regulation; information, communication, influence; and coercive military measures. Specific examples from each dimension include trade agreements and tariffs; direct investment and associated screening; stockpiling and shipping interdiction; overseas development assistance and sanctions; strategic messaging; and blockades. For a more comprehensive list of economic instruments, see Appendix A.

Economic instruments can be employed to escalate or deescalate capital costs, directly enable or disrupt the formation or operation of businesses, and control the flow of resources. Recent export controls and legislative actions, such as the Creating Helpful Incentives to Produce Semiconductors (CHIPS) and Science and Inflation Reduction Acts, are examples of some of these economic instruments in action. However, the full potential of these instruments has not yet been fully realized, since they have not been synchronized or collectively utilized. This highlights the need for a strategic economics approach to advance U.S. advantage.

Economic instruments are fundamentally “dualistic,” since the toolkit is linked to both U.S. domestic and adversarial, offensive and defensive, proactive and reactive, and public and private capabilities. While precisely categorizing these instruments can be challenging, defining their purposes is not. The overarching objective of economic instruments is to increase the United States’ relative advantage over its competitors.

Operational Concepts

Analogous to capabilities in the military, economic instruments can be deliberately linked to provide integrated force packages for decision makers to employ operationally. Economic operational concepts, such as the examples below, can be designed to achieve economic acceleration, deceleration, or disruption as part of larger campaign plans. The United States should develop new economic operational concepts and deliberately integrate these concepts into strategic campaign plans to leverage whole-of-nation and allied strength to achieve objectives in competition and conflict.

The following operational concepts are some examples of how specific economic instruments can be integrated to achieve desired effects. Many of these concepts have been used multiple times throughout history by different actors with varying degrees of effectiveness. These examples are intended to motivate further investments in developing and prioritizing an inventory of operational concepts that can be executed in support of specific scenarios and objectives.

Influence Energy Flows

Influencing or controlling global energy flows, which is scalable in application, provides opportunities to dissuade undesired behaviors by states, while simultaneously providing options to diminish the will and effectiveness of an adversary across the competition continuum.⁷ Economic instruments, such as sanctions, tariffs, export controls, and investment modulation, can be employed to make the procurement and use of required energy sources unsustainable or too financially costly for an adversary. In the event of kinetic conflict, these instruments can also be coupled with physical options to cut off fuel lines, including disabling or even destroying energy transport infrastructure. The availability of both kinetic and non-kinetic instruments to influence and control energy flows also supports diversified approaches for escalation management.

IN PRACTICE: Influence Energy Flows

China, like all nations, depends on reliable **energy flows** to sustain daily activities, economic activities, military operations, and international power and influence. Affecting a nation’s access to energy can be leveraged in campaign designs for both competition and conflict. As the war in Ukraine reveals, competitor nations can use energy flow modulation to shape battlefield conditions and build positions of strength for sustained competition. For example, Russia slowed or stopped the pipeline transfer of energy to many European nations. Similarly, in the Israel-Palestine conflict, the flow of power and fuel to Gaza was halted to shape conditions, affect public will, and prime the negotiation landscape.

Control Financial Interchange and Communication

Moderating access to and use of global financial organizations, such as the Society for Worldwide Interbank Financial Telecommunication (SWIFT), can affect a nation's ability to operate across markets and conduct business with financial entities. Persistent denial of access to global financial communications and interchanges may deter adversarial behavior during competition, but it may have limited utility and impacts during short-term conflict scenarios depending on a state's economic resilience. Removal from international organizations may degrade an adversary's ability to sustain conflict as the means to finance continued military production is degraded. However, frequent application of this tool can encourage nations to develop their own redundancies and workarounds for financial communications.^{8,9}

IN PRACTICE: Control Financial Interchange and Communication

Limiting or removing financial institutions' **accesses to global networks for interchange and communication** can create opportunities in competition campaigns for deterrence and technological advantage. For example, SWIFT access for sanctioned banks in Iran and Russia has been moderated or denied over the past decade.¹⁰ Application of financial access controls can affect targeted institutions, and in turn national solvency, financing, and subsequent military production. While full application—which would include all financial institutions in a country—enhances the impact and speed of desired outcomes, complete removal of all a nation's financial institutions from global networks could detrimentally affect the global economy because of increased interdependencies and globalization. Selective financial sanctioning and evasion can minimize the economic impacts and effectiveness of this concept.

Shape Import and Export Flows

Shaping import and export flows is another scalable concept that creates opportunities to benefit national interests while minimizing influence and access for adversarial competitors. Strategic economic instruments like export controls, sanctions, taxes, and subsidies can be used in conjunction with freedom-of-navigation capabilities and port access to achieve desired effects. The concept can be applied across the competition continuum and provides non-kinetic alternatives or complements throughout protracted conflict scenarios.¹¹

IN PRACTICE: Shape Import and Export Flows

With national economic strength and solvency tied to trade, the **shaping of import and export flows** helps enable deterrence in competition and supports advantage in conflict. Demonstrating the ability to interdict, isolate, quarantine, or even blockade in crisis situations offers opportunities to deter adversarial economic behaviors internationally.¹² The United States' use of export controls to minimize Chinese access to advanced technology and intellectual property¹³ is an example of this concept. The concept can also be applied to general commodities like raw materials and food. Using economic instruments, in conjunction with military-gained control of selective sea lines of communication, increases opportunities to reassure key allies and partners while dissuading adversaries from coercive behaviors. Maintenance and expansion of military capabilities in support of economic objectives maximizes deterrent effects and presents opportunities for cross-functional and multi-national entities to collaborate for second- and third-order strategic effects. Should conflict arise, selective and limited isolation of key ports could create opportunities to bolster economic influence and create advantageous conditions for the United States. Increasing partner access to and from essential ports also increases the United States' ability to compete internationally by bolstering the economic strength of regional allies. In a state of total war, the United States could fully operationalize this concept as a selective blockade to accelerate victory.

Shape the Economic Narrative

Shaping the economic narrative primarily relies on the strategic use of information, media, and economic diplomacy to highlight economic inequalities and exploitative practices. Whereas efforts to affect energy and trade flows present campaign options across competition and conflict, the process of shaping the economic narrative is relatively constrained in its application and scope. This approach can be used to emphasize wealth disparities within state boundaries, counter domestic propaganda, and promote a shift towards preferred economic alternatives.¹⁴ It can also sow doubt and reduce global perceptions of a competitor's economic strength, while simultaneously highlighting the risks associated with economic relations with nations that engage in predatory and coercive economic practices. The most impactful narrative will be the truth, particularly for regimes that exaggerate their economic strength and resilience or minimize their economic vulnerability and investment risk.

IN PRACTICE: Shape the Economic Narrative

Shaping the economic narrative requires a whole-of-government approach and presents opportunities to leverage the diverse array of public and private capabilities. For example, the State Department can engage with nations with developing economies to highlight the factual risks of predatory loans and xenophobic hiring practices. However, just demonstrating that an economic deal is harmful to a nation's long-term interests and autonomy is likely insufficient to stop it from being signed. Through coordination with other federal departments and American private companies, the exposure of harmful economic practices must also be accompanied by feasible, affordable, and beneficial alternatives.

Shape the Defense Industrial Base

Efforts to shape the Defense Industrial Base (DIB) provide options for leaders to increase their nation's own strength and resiliency and to decrease comparative advantage for potential competitors in both the economic and military domains. With opportunities across the international landscape, strategic economic instruments like tariffs and sanctions can be used to minimize competitor advantage, while trade policy and investment can be employed simultaneously to strengthen allies and partners.

IN PRACTICE: Shape the Defense Industrial Base

Efforts to **shape the DIB** can enhance national and economic security. For example, domestic efforts to onshore critical industries support resiliency in the United States. By using Department of Defense contracting and procurement capabilities as well as grant funding, venture capital, and private equity, the nation can incentivize a healthy American DIB that provides security for the United States and its allies and creates opportunities for economic prosperity. Efforts to establish and protect a resilient DIB also create opportunities whereby the strength, security, and ingenuity of partners and allies can be maximized. Through friend-shoring, ensuring favorable market access, and economic diplomacy, the United States can build mutually strengthening relationships that reduce reliance on competitors and potential adversaries for critical materials. Onshoring and friend-shoring both present opportunities for competitive advantage in technology.

Economic Campaign Plans

The United States can harness these operational concepts and economic instruments to develop economic campaign plans to achieve desired strategic objectives. Expanding on the guidance in Department of Defense (DoD) Joint Publication 5.0,¹⁵ economic campaign plans should organize the operations of joint and interorganizational stakeholders, including relevant Departments and Agencies, to shape the environment and achieve national objectives. Economic campaign plans should be proactive and feature multiple criteria for measuring success. Campaigns are necessary when desired objectives exceed the scope of a single operation; economic campaign plans require more extensive resourcing and time than a single operation. For additional consideration of DoD planning doctrine and its parallels to strategic economic planning, please see Appendix B.

ECONOMIC CAMPAIGNING

To apply strategic economics, instruments must be used in a coordinated, systematic, and repeatable fashion to support clearly defined goals. As with military planning, the employment of specific economic instruments should be synchronized as operational concepts and nested, whether sequenced or in parallel, within greater campaign plans. Economic campaign plans can be designed to address objectives like competition for economic advantage, deterrence, and success in short-term and protracted conflicts.

Campaigns across the Competition Continuum

The current geopolitical landscape requires economic campaign plans for use throughout the competition continuum. By building on historical understanding and applications of “economic warfare,”¹⁶ these campaign plans can create relative American advantage. Developing such plans ahead of conflict can provide both deterrent and practical effects. These plans, comprised of economic instruments and operational concepts, can be employed independent of or in conjunction with conventional military power at any time throughout the competition continuum.

COMPETITION. The United States’ core economic campaign plan is to outcompete China and other adversarial competitors simultaneously. In competition, the United States must strive to achieve at least three outcomes:

- achieve economic, commercial, and technological advantage,
- set favorable conditions for success in a potential conflict, and
- deter adversary action.

The United States, as the world’s largest and most complex economy, can compete to achieve these three mutually reinforcing lines of effort by leveraging its purchasing power, control over strategic assets, partnerships, and other means. Competition across the spectrum enables the development of credible capabilities while demonstrating U.S. willingness and ability to employ these capabilities. Economic campaign plans use an array of operational concepts to achieve desired strategic effects. This is strategic economics.

American-Sino technological competition is occurring in overlapping sectors. Across the military and economic arenas, both nations are working to develop advanced and resilient technology, strengthen and defend military supply chains, and effectively integrate across sectors to grow economic and military power. Competition to support multiple lines of effort requires building resilience into national economic capabilities through use of regulation, investment, and response options significant enough to deter hostile operations.

DETERRENCE requires offensive and defensive capabilities to “dissuade adversaries from taking aggressive actions.”¹⁷ Plans that synchronize economic instruments and operational concepts contribute to American deterrence. U.S.-Sino dependencies require American economic resilience throughout competition. For example, the United States can demonstrate its ability to sustain critical sectors independent of Chinese-supplied materials. Without this resilience, deterrence is not credible. In part, economic resilience can be accomplished through strategic decoupling on a limited basis to support national security objectives. This effort includes onshoring, reshoring, and friend-shoring to enable resiliency and increase international perceptions of strength and independence.

CONFLICT. The United States must also develop economic campaign plans for use during conflict. These plans must consider varying time horizons to account for short- and long-term scenarios. Economic campaign plans should enable options for a rapid resolution to armed conflict. In conflict, economic operational concepts are important for setting favorable end-state conditions. The application of economic instruments and concepts during conflict may represent a significant escalation in scope, scale, or intensity that could be accompanied by the beginning of armed conflict or

a declaration of war.¹⁸ In concert with military tools, economic instruments provide decision makers with a range of non-kinetic and kinetic options to achieve desired end states. From restricting market access and minimizing resupply to blocking wartime commodities,¹⁹ plans that incorporate economic instruments offer decision makers additional options for escalation in conflict.

ECONOMIC WARFARE IN COMPETITION AND CONFLICT. Economic campaign plans for conflict do not need to be considered as distinct from economic campaign plans for competition. They can account for escalation across the competition continuum. While the term “war” carries specific legal implications, aspects of economic warfare have been employed regularly throughout American history absent a formal declaration of war.²⁰ For example, a naval blockade is often considered an act of war, but impeding capital flows is not. However, both instruments may rely on military action to realize the desired objective.

With that said, economic warfare does not necessarily equate to armed conflict or a declaration of war. However, the economic domain is critical to one’s warfighting capacity since the former underpins resourcing and funding for military action. Aspects of economic warfare can be used to intentionally weaken an adversary’s economy, undermining its ability and willingness to pursue aggressive actions.²¹ When deliberately and strategically employed ahead of conflict, economic instruments can be used to shape the operating environment, providing greater flexibility for the use of diplomatic, military, and information instruments of power.²²

RECOMMENDATIONS

To effectively develop and implement strategic economics, the USG must cultivate capabilities to deploy its financial and economic instruments, develop operational concepts and integrated economic campaign plans, link resources, and orchestrate efforts to achieve U.S. strategic objectives. This requires fostering new and improved organizations and partnerships, orchestrating and synchronizing planning, and decentralizing execution.

1. Create a National Security Economic Strategy

The development of a *National Security Economic Strategy* (NSES) to support the objectives of the *National Security Strategy* is necessary to increase national focus on the economic domain. As a parallel strategy to the NDS, the NSES would catalyze integration across government Departments and Agencies to better enable unity-of-effort to accomplish strategic economic objectives across the competition continuum. The NSES would sharpen focus across economic, financial, and trade agencies and create alignments within national security agencies. Like the NSS and NDS, the NSES would be updated every four years to provide a framework for shaping economic campaigns and resource allocation. NSES implementation requires the development of economic campaign plans.

2. Build Economic Expertise, Awareness, and Partnerships

2.1. Increase Internal Coordination Across the U.S. Government: A strength of the United States is its lack of centralized economic command and control; free markets drive much of the power of the American economy and create conditions for growth and innovation. However, this decentralization also amplifies the complexities of synchronizing efforts across diverse stakeholders and authorities. The NSES can facilitate integration and coordination across public and private actors through a clearly articulated strategic vision to develop incentives.

The Departments of State, Defense, Commerce, and Treasury must work together to deploy economic instruments in coordination with one another. Increasing working-level communication and interactions is essential. While some interagency economic cross-functional teams exist, like the Committee on Foreign Investment in the United States, their use and impact are limited. Developing and implementing rapid integration constructs across agencies, such as the Departments of Energy, Agriculture, or Transportation, should be further prioritized.

2.2. Leverage Expertise to Develop Public-Private Partnerships: The federal government should harness private sector expertise across the economic, finance, and commercial ecosystems. An advisory group, modeled after the JASONs, Defense Science Board, or similar construct, should be established. This group, comprised of industry experts with practical expertise and experience across various economic domains, can provide critical insights and answer key questions on implementation options for the use of economic power. The group would offer the USG advice, options, assessments, and access to partner networks. The scope of the group's engagement could span from the creation of innovative operational concepts to the evaluation of their effectiveness and potential impact, as well as support to wargaming, scenario evaluation, and "Red Team" reviews.

In many cases, development and implementation of strategic economic effects requires active involvement from the private sector and the enhancement of public-private partnerships. Private entities such as companies, funds, and similar organizations play a critical role in the global economy. By fostering strong collaborations between the public and private sectors, the United States can leverage the private sector's significant influence, access, and resources and incentivize the private sector to further U.S. national security objectives

2.3. Increase International Coordination: The United States can increase coordination with allies and partners to amplify collective investments in technology and industry development. Bilateral and multilateral cooperation, trade agreements, and economic diplomacy can create opportunities for sustained access to critical resources and supply chains. Allies and partners can also employ economic instruments, such as tariffs and sanctions, to shape and influence global economic conditions.

3. Establish Economic Capabilities and Constructs for Whole-of-Nation Integration

3.1. Improve Intelligence in Support of Strategic Economic Effects: American intelligence agencies, as well as the Treasury and Commerce Departments' analytic cells, should provide economic analysis to increase understanding of the economic environment, which can be used for indications and warning and targeting. There is a need for better economic intelligence collection and analysis as well as improved integration of economic intelligence across Departments and Agencies. This could be accomplished through enhanced prioritization and coordination between intelligence cells within current national security and domestic agencies or the creation of a new dedicated center, modeled after the National Counterterrorism Center, that can share capabilities and authorities.

The USG must deepen its understanding of how the PRC employs its own economic instruments in concert with its CNP. This will enable a better understanding of the dynamic nature of employing instruments, countermeasures, counter-counter measures, and so on, ultimately enabling the development of more effective actions for desired effects.

3.2. Enable Cross-Functional Forums: The complex nature of strategic economic decision making for national security motivates the evolution and maturation of interagency constructs, many of which are currently underdeveloped or entirely lacking. The implementation of new processes and organizational constructs for incorporating a broader range of cross-functional expertise, including more frequent meetings between the National Security Council and National Economic Council, is critical for fostering a more integrated and holistic perspective.

3.3. Develop Decision Making and Assessment

Tools: Quantitative assessment tools must compare the relative strength of economies, in essence providing an economic net assessment for better decision making. Developing a strategic economic net assessment should inform analytic and simulation capabilities, affording decision makers a risk calculus for options and engagements with international economies. Further, situational awareness within the economic domain and courses-of-action modeling capabilities can help guide and synchronize decision making. Similarly, strategic economic wargames could be used to make more informed policy decisions by leveraging partners across the government and private sectors. Such tools are essential for realistically assessing American effectiveness and resiliency in competition and conflict scenarios.

3.4. Implement Processes to Assess Collateral

Damage: American economic interests frequently intersect with those of China. However, it is critical to acknowledge that China perceives these intersections as significant leverage points and areas of influence over the United States. As the USG implements strategic economics to achieve its foreign policy and national security objectives, it must determine acceptable levels of risk, including impacts on the private sector and on allies and partners. It is imperative to establish processes that can accurately evaluate the magnitude of both intended and unintended consequences of actions in the economic domain.

3.5. Apply Military Planning Approaches: The Department of Defense has invested significant resources in professionalizing and operationalizing the planning and execution of campaigns. This process of operational planning has been developed and refined through rigorous trial and error, tested in both combat and peacetime scenarios. While DoD manuals and procedures may appear rigid, they are instrumental in deconstructing complex

problems into manageable components and establishing logical methods to achieve established objectives. Other USG Departments and Agencies can leverage this extensive body of work, knowledge, and personnel to craft their unique and specific contributions to strategic economics operational plans and the implementation of large-scale interagency campaign plans.

3.6. Develop a Strategic Economics Playbook and

Wargames: A broad spectrum of strategic economic instruments already exists within the USG. These instruments are embedded within a multitude of laws and executive orders, some of which have been in place for decades or have remained unused for many years. Few attempts have been made to precisely delineate the methods for their application. The USG must take the initiative to define, catalogue, and develop how these authorities and their associated instruments can be coordinated across different agencies. Deliberate linkage and synchronization of economic instruments is essential for operational concept development. In turn, this development can enable the creation of an economics playbook that should be orchestrated and tested in wargames to drive a more complete understanding of options to achieve objectives.

Lastly, armed with a deeper understanding of these instruments, operational concepts, and campaigns, as well as playbooks on how to apply particular instruments in specific scenarios and anticipate potential PRC responses, the USG must capitalize on its vast wargaming experience to continuously develop, refine, and prepare new tactics, techniques, and procedures for implementing strategic economics to achieve national objectives. To support this objective, the USG should regularly convene appropriate subject matter experts from across all relevant Departments and Agencies, as well as from the private sector, allies, and partners, as appropriate, to execute strategic economic wargames related to scenarios of national importance.

CONCLUSION

The United States must proactively develop a *National Security Economic Strategy* that integrates economics for strategic effects, employs operational concepts for the economic domain, and conducts strategic economic campaigning across the whole-of-nation with allies and partners.

This approach is critical to achieving desired outcomes both domestically and abroad in support of American security. The current threat landscape presents a pivotal moment for American leaders to draw inspiration from military strategies, designing and orchestrating campaign plans that synchronize operational concepts to deter, compete, and prevail in the economic domain. In parallel, the United States must foster collaboration and coordination, thereby reinforcing the strength of the American economic infrastructure to support national security and enhance U.S. and allied advantage on the international stage. While it remains essential for



the United States to continue strengthening its diplomatic, military, and other capabilities, the untapped potential of the nation's economic power has emerged as a singularly critical dimension for successful competition with China. Harnessing this economic might can provide the United States with a decisive advantage in strategic competition, ensuring its continued leadership and influence in the global arena. Therefore, the development of this comprehensive approach to strategic economics is not just an option but a requirement for the United States to secure its national interests.

APPENDIX A: STRATEGIC ECONOMIC INSTRUMENTS

Trade

- **Market access** is facilitated by organizations like the Department of Commerce's International Trade Administration, which enables American access to international markets,²³ while the Department of Commerce's Bureau of Industry and Security (BIS) manages compliance with U.S. trade laws and controls. Foreign sales enable the generation of capital for the government, while creating opportunities to influence international partners.
- **Trade agreements and relationships** are negotiated and managed by the Office of the United States Trade Representative (USTR). Bilateral Investment Treaties are used to "protect private investment, to develop market-oriented policies in partner countries, and to promote U.S. exports."²⁴ The United States maintains free trade agreements with more than 20 countries²⁵ and is party to several plurilateral agreements at the World Trade Organization. Trade and Investment Framework Agreements, managed by the USTR, offer formalized mechanisms for the United States to coordinate with partners on important economic topics like market access and labor.²⁶
- **Tariffs** are used to restrict certain foreign and international imports and exports, products, businesses, and monetary flows.

Finance and Investment

- **Grant funding** is often used to develop new technologies, to educate the workforce, or to otherwise strengthen segments of the U.S. economy. The grants are financed by both public and private entities. For example, the Defense Advanced Research Projects Agency (DARPA) and National Institutes of Health (NIH) can direct technology development via grant funding.
- **Venture capital** funds the development and commercialization of technology and can be sourced by both private sector and quasi-government organizations like InQTel.
- **Private equity** funds business growth, optimization, and asset acquisition. The United States lacks a sovereign wealth fund, though there are associated funds like the Development Finance Corporation and Multilateral Development Banks. Regulatory modifications can affect timing, intensity, and direction of private equity investment.
- **Public market equity** funds business growth and supports information transparency. The Securities and Exchange Commission affects public market regulation and can create requirements to ensure foreign business transparency, for example.
- **Credit** funds company growth. U.S. government agencies like the Office of the Comptroller of Currency regulate credit and retain unique abilities to loan companies money, such as the Department of Defense's (DoD) Defense Production Act Title 3 and the Department of Energy's loan programs.²⁷ Private credit also funds diverse growth across the economic landscape.
- **Currency exchange**, underpinned by the value of the U.S. Dollar (USD), provides for hegemonic control of international money flows. The Department of Treasury and Federal Reserve impact global currency flows.
- **Insurance**, provided by the Federal Deposit Insurance Corporation, ensures the security and protection of individual consumers and the greater economy. Political risk insurance can also be offered as an incentive for certain directed investments.

- **Inbound investment screening** could be used to protect sensitive industries such as defense, technology, or energy. By scrutinizing foreign investments in these sectors, the United States can prevent potential threats to national security. For example, the United States could use the screening process as leverage in foreign policy negotiations by threatening to block investments from a particular country unless certain conditions are met. The United States could also use investment screening to control the transfer of critical technology to foreign countries or to prevent foreign influence in its economy and politics.
 - **Outbound investment screening** could be used as a form of leverage or economic retaliation. If a foreign country takes actions that the United States deems harmful, it could respond by blocking, restricting, or putting conditions on that country's investments.
- ## Resource Management and Supply Chain
- **Stockpiling** is an economic instrument that involves accumulating large reserves of critical materials or goods. This strategy can be used to ensure a nation's self-sufficiency and resilience in times of crisis, conflict, or supply chain disruptions. By maintaining a stockpile, a country can safeguard against potential shortages, price volatility, or dependency on foreign suppliers, thereby enhancing its economic stability and national security. Stockpiling also allows for more direct influence on international market prices and can be used as a tool to exert economic pressure on other countries.
 - **Procurement and contracting** can serve as a powerful catalyst for economic growth and advancement. The U.S. government is one of the world's largest buyers of goods and services, and the DoD alone injects more than \$800 billion into the economy annually.²⁸ The means by which the federal government disburses this money and the specific items it purchases can affect entire economic sectors, drive innovation in particular areas, and create trained workforces.
 - **Export controls** are designed to enhance American national security through the transfer of defense-related goods and services to partner nations.²⁹ The Defense Security Cooperation Agency retains authority for Foreign Military Sales, while Direct Commercial Sales enable negotiation between approved partners and American commercial entities. Commerce BIS plays the primary role in export control and treaty compliance.³⁰
 - **Targeted interdiction of shipments** refers to the deliberate interruption, seizure, or redirection of goods being transported, often to enforce sanctions, prevent the proliferation of weapons, or disrupt illicit trade. The United States can expand this practice and use it to exert economic pressure on a particular country or entity by enforcing trade rules and sanctions or to intercept shipments of military equipment or technology that could pose a threat.

Diplomacy and Regulation

- **Economic diplomacy** with foreign nations is managed by the State Department and includes efforts to attract new business and maximize trade opportunities.
- **Overseas development assistance**, largely managed by the State Department's United States Agency for International Development,³¹ provides resources including investment and expertise to foreign nations across a diverse range of portfolios, such as innovation, food security, and economic growth.
- **Sanctions** involve the "withdrawal" or modification of "customary trade and finance relationships" between economic actors to encourage behavior change and include embargoes and asset freezes.³² The Office of Foreign Assets Control administers and enforces sanctions. To ensure their effectiveness, strict enforcement is required, including the application of secondary sanctions among potential U.S. allies. While sanctions are likely to be effective in smaller, non-industrialized economies, their implementation may pose a challenge in larger, technologically advanced economies.
- **Tax policy** promotes or restricts certain businesses, monetary flows, and products. For example, tax breaks have been used to support electric vehicle development.
- **Interest rates** affect the U.S. and global economies because the relative expense of money drives investment through equity and credit. Interest rates can accelerate or decelerate entire economies. American rates, controlled by the Federal Reserve, have an outsized effect on the global economy because of USD strength and the size of the U.S. economy.

Information, Communication, and Influence

- **Strategic messaging** can be used to supplement policy. Frequently communicating intent about change in economic policy creates impact, regardless of whether the policy is enacted. The United States can also use strategic messaging to shape perceptions of its economic policies, both domestically and internationally, pressure other countries to change their behavior, and rally international support for its initiatives.
- **Investigations** enforce compliance with trade agreements, sanctions, or other economic policies, which could involve investigating allegations of non-compliance or violating local or international law. The United States could also use investigations to influence the behavior of other countries or entities. For example, it could launch investigations into unfair trade practices to pressure other countries to change their policies.
- **Intellectual property** is regulated through protections like patents, trademarks, and copyrights, which are managed domestically by the United States Patent and Trademark Office.³³
- **Information protection and regulation** efforts, such as the Restricting the Emergence of Security Threats that Risk Information and Communications Technology (RESTRICT) Act, promote American security at the individual and organizational levels and support information freedom and transparency across mediums.

Coercive Military Measures

- **Blockades** exert significant economic pressure on a country by disrupting trade and causing shortages of goods. In times of conflict, a blockade can be a powerful military tool. By cutting off a country's access to resources, the United States can weaken that country's ability to wage war. Even the threat of a blockade can deter countries considering actions that the United States deems unacceptable.
- **Targeting an adversary's defense industrial base** involves disrupting or influencing the production and supply chain of an adversary's military equipment and technology. This activity can involve a range of kinetic and non-kinetic actions to hinder the adversary's ability to manufacture, acquire, or maintain its defense capabilities.

APPENDIX B: DEPARTMENT OF DEFENSE (DOD) PLANNING DOCTRINE AND POTENTIAL APPLICATION TO STRATEGIC ECONOMICS

Operational Planning

In military parlance, the economic relationships between nations can be considered a “domain,” the same way that air, land, maritime, space, and the information environments are all domains.³⁴

The military uses its capabilities to exert influence within these domains to achieve its desired objective. One could argue that if economic instruments can be used to achieve a commander’s objective, then economics counts as an operational domain.

Given this context and drawing on general DoD operational planning guidance, economic campaigns may be developed using a systematic and repeatable approach. Applied to the economic domain, the seven basic principles of operational planning are:³⁵

1. **INITIATION:** This is the first step in which the need for an economic operation is identified. The need could be due to a variety of reasons, such as to counter an economic threat, to gain a competitive advantage, or to stabilize a volatile economic situation. The initiation stage involves identifying the key stakeholders, setting the objectives, and gathering the necessary resources.
2. **MISSION ANALYSIS:** In this step, the economic situation and broader context are analyzed in detail. This involves understanding the current economic landscape, identifying the strengths and weaknesses of the economy, and determining the potential threats and opportunities. Mission analysis also includes understanding the objectives of the operation and identifying the key performance indicators (KPIs) to measure the success of the operation.
3. **COURSE OF ACTION (COA) DEVELOPMENT:** The next step is to develop multiple COAs. This involves brainstorming different strategies and tactics to achieve the objectives. See Appendix A for economic instruments from which operational planners might pull. COA development also includes identifying the resources required, the potential risks of collateral damage, and the operational timeline for the operation.
4. **COA ANALYSIS AND WARGAMING:** In this step, each course of action is analyzed in detail. This involves conducting a SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis for each COA and simulating the outcomes using economic models and wargaming techniques. The aim is to predict the potential outcomes and to identify the best course of action. Particular attention should be paid to collateral damage calculations, both for the U.S. private sector and for allies and partners.
5. **COA COMPARISON:** Next, the different courses of action are compared. This involves comparing the potential outcomes, the risks involved, and the resources required for each COA. The aim is to identify the most effective and efficient course of action.
6. **COA APPROVAL:** Once the best course of action is identified, it needs to be approved by the key stakeholders. This involves presenting the COA to the stakeholders, addressing their concerns, and getting their approval. COA approval also includes finalizing the resources, the timeline, and the KPIs for the operation.

7. **ORDER DEVELOPMENT:** The final step is to implement the approved course of action. This involves mobilizing resources, executing the strategies and tactics, and monitoring the progress of the operation. Order development also includes measuring the success of the operation using the KPIs, and making necessary adjustments to ensure the objectives are achieved.

Supporting/Supported Considerations

Depending on the objective and the primary domain it resides in, “commanders” will be in either a “supported” or “supporting” relationship with one another. Joint doctrine states:

“This support relationship in essence makes the supporting commanders responsible for enabling the success of the supported commander. They can’t simply provide some forces and walk away from the challenge. Rather, in accordance with the joint force commander’s guidance and intent, the Support COMREL (command relationship) requires supporting commanders to stay involved with the supported commander and continue to aid and assist him within the defined scope and priorities as he conducts operations.”³⁶

As an example of this whole process in action within the economic domain, consider an export control action by the Commerce Department. The Commerce Department is the “supported” commander. Other departments or agencies will act in a “supporting” capacity to provide technological expertise, assessments of potential impact to the United States and allies, diplomatic support in messaging, and so on. In this example, the Commerce Department will determine the ends, ways, and means necessary to achieve the objective of preventing a specific technology from being accessed by a U.S. adversary.

To enable coordination and coherent support efforts, each department’s or agency’s specific capabilities and authorities can use standardized approaches to operational planning across the full life cycle, from indications and warning, to target identification, to effects development, to effects-target pairing, to effects employment, to assessment. Depending on the operation, different Departments and Agencies will take turns being the supported organization. Due to personnel capacity shortfalls and experience, especially in times of crisis or conflict, each department may benefit from having a cadre of personnel familiar with the DoD planning process embedded and supporting the operational planning for that respective department or agency.

References

1. Joint Chiefs of Staff, *Strategy*, Joint Doctrine Note (JDN) 1-18 (Washington, DC: Joint Chiefs of Staff, 2018), II-7-II-8, https://www.jcs.mil/Portals/36/Documents/Doctrine/jdn_jg/jdn1_18.pdf. MIDFIELD (military, informational, diplomatic, financial, intelligence, economic, law, and development) provides more expansive approaches.
2. U.S. Department of State, “Military-Civil Fusion and the People’s Republic of China,” May 2020, <https://www.state.gov/wp-content/uploads/2020/05/What-is-MCF-One-Pager.pdf>.
3. Rush Doshi, “The Long Game: China’s Grand Strategy to Displace American Order,” The Brookings Institute, 2 August 2021, www.brookings.edu/articles/the-long-game-chinas-grand-strategy-to-displace-american-order/.
4. U.S. Department of Defense, “2022 China Military Power Report,” 2022, <https://media.defense.gov/2022/Nov/29/2003122280-1-1/1/2022-CHINA-MILITARY-POWER-REPORT.PDF>.
5. Chris Bassler et al., “A Sum Greater than Its Parts: Integrated Deterrence and Strategic Competition,” MITRE & Aspen Institute, 5 December 2023, www.mitre.org/news-insights/publication/sum-greater-its-parts-integrated-deterrence-and-strategic-competition.
6. The term “strategic economics” has been used since at least the 1980s. For additional information on prior application and use of this term, reference 1) James O’Leary, “Economic Warfare and Strategic Economics,” *Comparative Strategy* 5:2 (1985): 179-206, <https://doi.org/10.1080/01495938508402688> and 2) Norman Bailey and Carnes Lord, “On Strategic Economics,” *Comparative Strategy* 7:2 (1988): 93-97, <https://doi.org/10.1080/01495938808402736>.
7. Joint Chiefs of Staff, *Competition Continuum*, JDN 1-19 (Washington, DC: Joint Chiefs of Staff, 2019), https://www.jcs.mil/Portals/36/Documents/Doctrine/jdn_jg/jdn1_19.pdf. As characterized on page 2 of JDN 1-19, “the competition continuum describes a world of enduring competition conducted through a mixture of cooperation, competition below armed conflict, and armed conflict.” This term is used throughout this paper and all additional references refer to publication as listed in this note. JDN 1-19 should be referenced in its entirety for additional context.
8. Charles Riley, “What Is Swift and How Is It Being Used against Russia?” *CNN Business*, 28 February 2022, <https://www.cnn.com/2022/02/28/business/swift-sanctions-explainer/index.html>.
9. Cora Engelbrecht, “Iran and Russia Move toward Linking Their Banking Systems, Helping Both Withstand Western Sanctions,” *The New York Times*, 31 January 2023, <https://www.nytimes.com/2023/01/31/world/europe/iran-russia-banks.html>.
10. Charles Riley, “What Is Swift and How Is It Being Used against Russia?” *CNN Business*, 28 February 2022, <https://www.cnn.com/2022/02/28/business/swift-sanctions-explainer/index.html>.
11. Tyler Hacker, “Beyond Precision: Maintaining America’s Strike Advantage in Great Power Conflict,” Center for Strategic and Budgetary Assessments, 2023, 40, https://csbaonline.org/uploads/documents/Beyond_Precision_Report_CSBA8355_FINAL_web.pdf.

12. George Hageman, "The Anaconda Plan: A 19th Century Strategy for the Asia-Pacific," Defense Technical Information Center, 11 February 2023, <https://apps.dtic.mil/sti/trecms/pdf/AD1210827.pdf>.
13. Alex Palmer, "'An Act of War': Inside America's Silicon Blockade against China," *The New York Times Magazine*, 12 July 2023, <https://www.nytimes.com/2023/07/12/magazine/semiconductor-chips-us-china.html>.
14. Andrew Krepinevich Jr., "Archipelagic Defense 2.0," *Hudson Institute*, 14 September 2023, 156, <https://www.hudson.org/archipelagic-defense-2-taiwan-china-japan-australia-deterrence-us-navy-andrew-krepinevich-jr>.
15. Joint Chiefs of Staff, *Joint Planning*, Joint Publication 5-0 (Washington, DC: Joint Chiefs of Staff, 2017), IV-11, <https://www.airforcespecialtactics.af.mil/Portals/80/Joint%20Pub%20JPUB%205-0%20Joint%20Planning.pdf>.
16. T. E. Førlund, "The History of Economic Warfare: International Law, Effectiveness, Strategies," *Journal of Peace Research* 30(2) (1993): 151-162, <https://doi.org/10.1177/0022343393030002003>; George Shambaugh, "Economic Warfare," *Encyclopedia Britannica*, 2 November 2023, <https://www.britannica.com/topic/economic-warfare>.
17. Chris Bassler et al., "A Sum Greater than Its Parts: Integrated Deterrence and Strategic Competition," MITRE & Aspen Institute, 5 December 2023, 7, www.mitre.org/news-insights/publication/sum-greater-its-parts-integrated-deterrence-and-strategic-competition.
18. Lois Gruendl, "The Impact of Offensive Economic Warfare on the Operational Commander," Defense Technical Information Center, 16 June 1995, 4, <https://apps.dtic.mil/sti/tr/pdf/ADA297954.pdf>.
19. T. X. Hammes, "Offshore Control: A Proposed Strategy for an Unlikely Conflict," *Strategic Forum* 278 (June 2012): 1-16, <https://ndupress.ndu.edu/Portals/68/Documents/stratforum/SF-278.pdf>.
20. Donald Stevens, "Organizing for Economic Defense: Henry Wallace and the Board of Economic Warfare's Foreign Policy Initiatives, 1942," *Presidential Studies Quarterly* 26(4) (1996): 1126-1139, accessed 4 March 2024, <http://www.jstor.org/stable/27551675>.
21. Percy W. Bidwell, "Our Economic Warfare," *Foreign Affairs*, 1 April 1942, <https://www.foreignaffairs.com/articles/united-states/1942-04-01/our-economic-warfare>.
22. Ibid.
23. International Trade Administration, "About Us," Department of Commerce, <https://www.trade.gov/about-us>.
24. Office of the United States Trade Representative, "Bilateral Investment Treaties," <https://ustr.gov/trade-agreements/bilateral-investment-treaties>.
25. Office of the United States Trade Representative, "Free Trade Agreements," <https://ustr.gov/trade-agreements/free-trade-agreements>.

26. Office of the United States Trade Representative, “Trade & Investment Framework Agreements,” <https://ustr.gov/trade-agreements/trade-investment-framework-agreements>.
27. Office of the Comptroller of Currency, “Comptroller of the Currency,” U.S. Department of Treasury, <https://www.occ.treas.gov/about/who-we-are/comptroller/index-comptroller-of-the-currency.html>.
28. Lloyd Austin III, “Department of Defense Releases the President’s Fiscal Year 2025 Defense Budget: Statement by Secretary of Defense Lloyd J. Austin III on the President’s Fiscal Year 2025 Defense Budget,” U.S. Department of Defense, 11 March 2024, <https://www.defense.gov/News/Releases/Release/Article/3703410/department-of-defense-releases-the-presidents-fiscal-year-2025-defense-budget/>.
29. Defense Security Cooperation Agency, “Foreign Military Sales FAQ,” <https://www.dsca.mil/foreign-military-sales-faq>.
30. U.S. Department of Commerce, “Bureau of Industry and Security,” <https://www.commerce.gov/bureaus-and-offices/bis>.
31. U.S. Agency for International Development, “Mission, Vision and Values,” <https://www.usaid.gov/about-us/mission-vision-values>.
32. Jonathan Masters, “What Are Economic Sanctions,” Council on Foreign Relations, 12 August 2019, <https://www.cfr.org/backgroundunder/what-are-economic-sanctions>.
33. United States Patent and Trademark Office, “About Us,” <https://www.uspto.gov/about-us>.
34. Joint Chiefs of Staff, *Joint Operations*, Joint Publication 3-0 (Washington, DC: Joint Chiefs of Staff, 2018), IV-1.
35. Joint Targeting School, “Joint Targeting School Student Guide,” 1 March 2017, 7-12, https://www.jcs.mil/Portals/36/Documents/Doctrine/training/jts/jts_studentguide.pdf?ver=2017-12-29-171316-067.
36. Joint Staff Deployable Training Division, “JTF C2 and Organization,” January 2020, 12, https://www.jcs.mil/Portals/36/Documents/Doctrine/fp/jtfc2_fp2nd_ed.pdf?ver=2020-01-13-083433-550.

Authors

Eva-Marie Etzel, Cross-cutting Operations Lead, MITRE

Chris Bassler, Cross-cutting Priority Director, Integrated Deterrence, MITRE

Marin Halper, Vice President, Cross-cutting Priorities, MITRE

Anthony Vinci, Strategic Advisor

Pavneet Singh, Strategic Advisor

Dawn Meyerriecks, Senior Visiting Fellow, MITRE

Nadia Schadlow, Senior Visiting Fellow, MITRE

Isaac Harris, Strategic Advisor

Acknowledgments

Keoki Jackson, Senior Vice President and General Manager of National Security Sector, MITRE

Jim Hickey, Chief Strategist, National Security and Capital Integration, MITRE

Will Kirkman, Director, Center for Policy and Strategic Competition, MITRE

Roz Engel, Managing Director, Treasury, Economics and Commerce Division, MITRE

Talia Gifford, Analytic Systems Engineer, MITRE

MITRE's Mission

MITRE's mission-driven teams are dedicated to solving problems for a safer world. Through our public-private partnerships and federally funded R&D centers, we work across government and in partnership with industry to tackle challenges to the safety, stability, and well-being of our nation.

The views, opinions, and/or findings contained herein are those of the author(s) and should not be construed as an official government position, policy, or decision unless designated by other documentation.