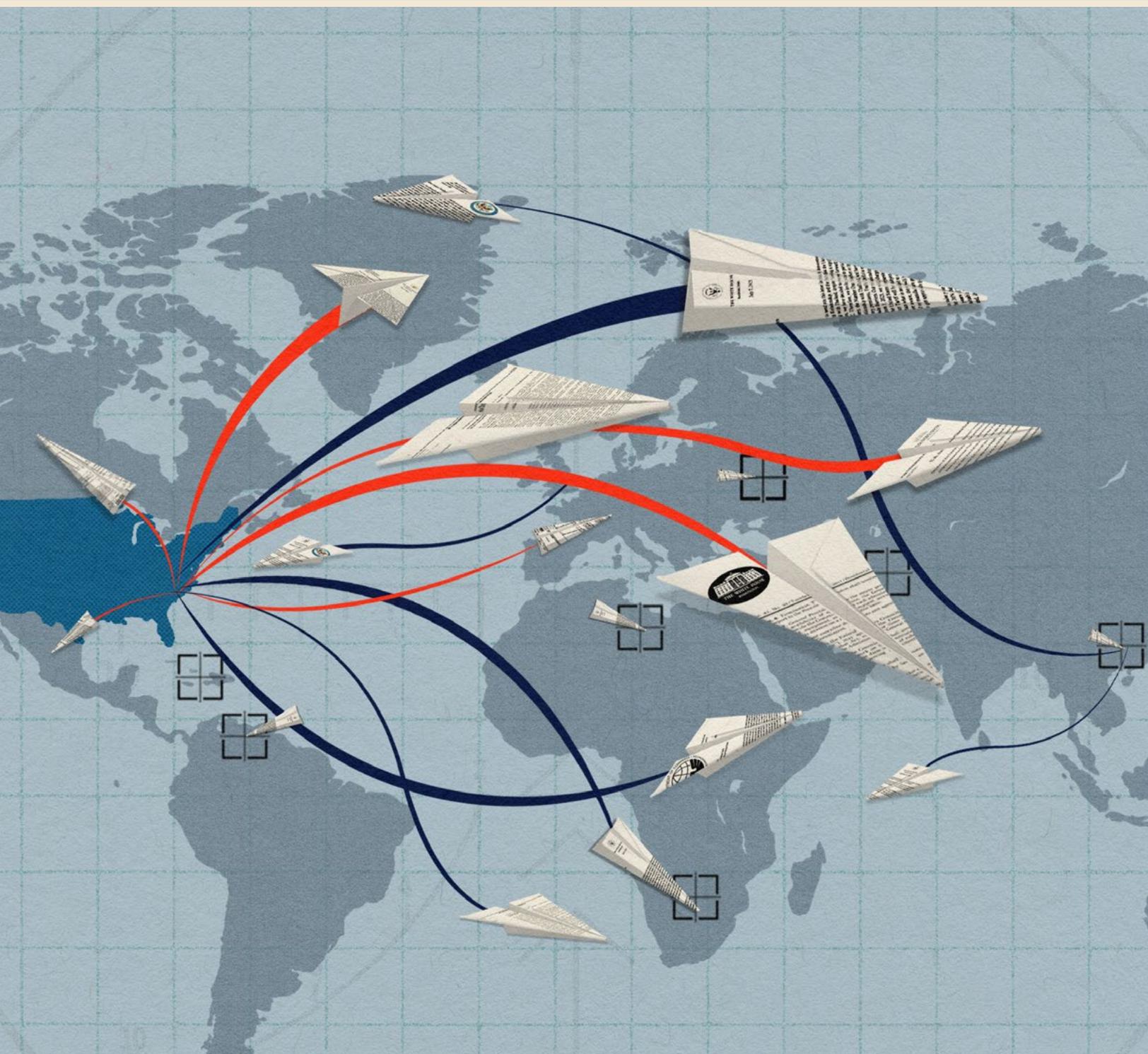


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Hit It with Your Best Shot

An American Doctrine of Economic Pressure

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About the Author



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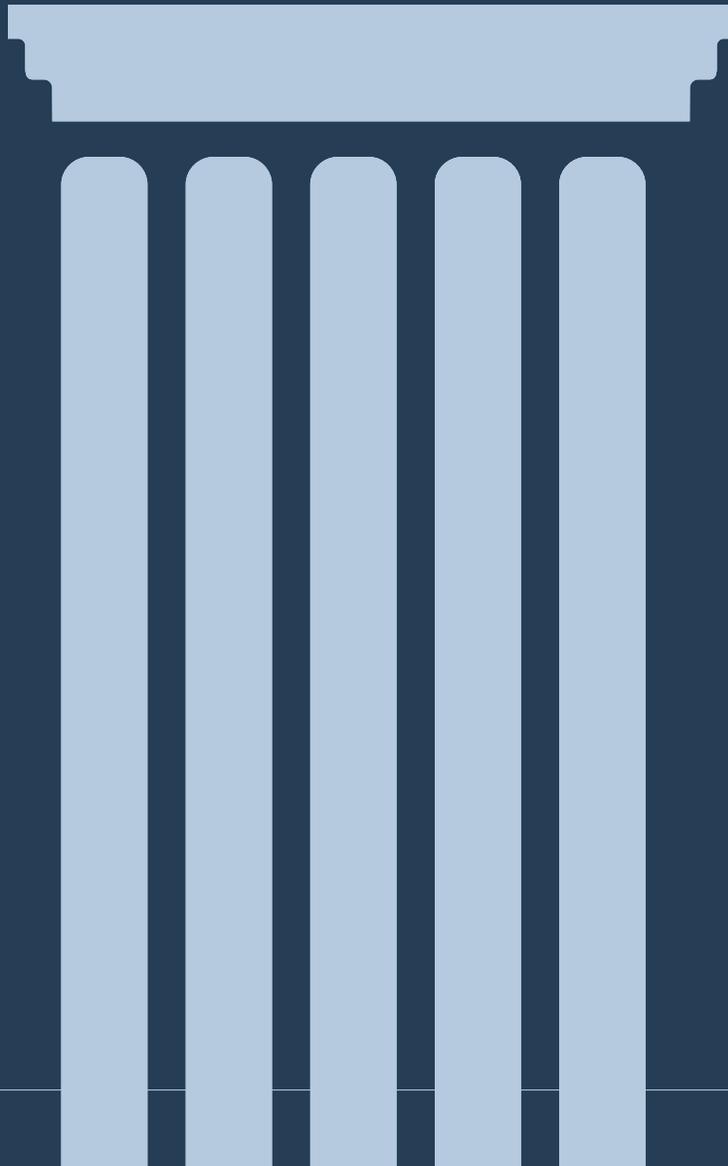
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Terminology Notes

The People's Republic of China (PRC) refers to the Chinese state. China refers to the entire country, inclusive of nongovernment and nonparty actors. When discussing economic activity, the default term is China, to encompass the range of individuals, firms, and government entities that may be involved.

The term sanction refers to any economic measure that is used to apply political pressure on a targeted nation, entity, or individual, including financial sanctions, export controls, tariffs, or other restrictions on economic activity. This includes law enforcement actions taken with the goal of imposing an economic restriction. Financial sanctions indicate those sanctions that specifically target financial activities.



Executive Summary

AMERICA NEEDS AN economic pressure doctrine. The country is using economic pressure in more novel ways and at greater scale than any other time in the postwar period. The wielding of America's economic might comes at a time of fundamental change for the geopolitical environment, driven both by the rise of strategic competitors challenging America's preeminence and America's own evolving views on its role in the world. Yet, economic pressure has long been an instrument of American power. Examining the historical use of economic pressure and drawing lessons learned from past experiences can inform the development of a set of guiding principles for the use of economic pressure moving forward. Those guiding principles can form the basis of an American doctrine of economic pressure, intended to provide discipline and a structured analytic framework for policymakers as they inevitably consider additional deployments of economic pressure to address a range of U.S. foreign policy and national security challenges.

AMERICA NEEDS AN ECONOMIC PRESSURE DOCTRINE.

Economic pressure is economic statecraft that is conducted in an adversarial manner toward a target nation, either by the United States alone or in cooperation with other aligned nations. This report arrives at an economic pressure doctrine based on the analysis of 20 prior and ongoing cases of U.S. economic pressure, including legacy embargo cases (Chapter 1), modern sanctions cases (Chapter 2), technology denial cases (Chapter 3), and trade coercion cases (Chapter 4). Rather than attempting an exhaustive review, the cases were chosen to be a representative sampling of major instances of economic pressure deployed in the context of a state-to-state dispute, including a variety of economic pressure instruments, time periods, and effectiveness. Each case study is assessed on a set of 11 criteria commonly associated with the successful application of economic pressure, with key insights from a comparative analysis of each criterion across all 20 cases used as the building blocks for an economic pressure doctrine (Chapter 5). This iterative analytic approach builds to the articulation of a precise set of doctrinal principles for American economic pressure, set forth below and further explored in the conclusion of the paper.

Nine Principles of American Economic Pressure

Nine principles of American economic pressure emerged from the case study review. These principles can form the foundation of an American economic pressure doctrine.

Strategic Principles: Theories of Victory, Failure, and Restraint

At the strategic level, policymakers should set forth three theories: a theory of victory that articulates how economic pressure may aggregate into political effect, a theory of failure that determines when an economic pressure campaign has failed, and a theory of restraint that sets limits on the use of economic pressure for strategic, practical, or moral reasons. The three theories are conceptualized to work in tandem, with each on equal footing. Each, and all three together, must be continually assessed throughout the course of an economic pressure effort.

1

Principle One

A theory of victory sets a clearly defined foreign policy or national security goal, articulates the role that economic pressure can play in achieving that goal, and establishes conditions to determine when the foreign policy or national security goal and the economic pressure goal have been achieved.

Economic pressure is not a strategy. It is deployed in service of a clearly articulated foreign policy or national security goal, with a clear sense of how it fits with other instruments of national power and with defined conditions for success. The guiding question in determining the theory of victory is how economic pressure may aggregate into political effect.

2

Principle Two

A theory of failure sets conditions under which an economic pressure campaign will be deemed to be failing to meet its objectives.

Economic pressure can fail. Conditions are set in advance to determine when an economic pressure campaign has failed to meet its objectives or when it has failed to translate into political effect and the achievement of the broader foreign policy or national security goal it is designed to support.

3

Principle Three

A theory of restraint sets limits to determine what the United States should not do as part of its economic pressure campaign.

Restraint on the use of economic pressure may be warranted for strategic, practical, or moral reasons. This includes the potential for systemic effects on the future ability to leverage economic pressure, as well as restraint justified for the purpose of maintaining the strategic value of America's alliance structures. A theory of restraint assesses how restraint will impact the amount of economic pressure that can be brought to bear in service of the stated foreign policy or national security goal.

Operational Principles: Building Economic Pressure

At the operational level, policymakers should design economic pressure campaigns based on a holistic assessment of the economic leverage that the United States possesses relative to the target, accounting for each's position in the global economy and for the target's likely adaptation.

4

Principle Four

Structural leverage is the center of gravity for economic pressure.

The ability to apply economic pressure effectively relies on the overall balance of coercive leverage between the United States and its target, including each's relative position in the global economy. Individual chokepoints are less important than a holistic assessment of relative economic power and leverage.

5

Principle Five

Allies and adversaries are equally important for building economic pressure.

Effectively building economic pressure requires broad control over the economic activity that the United States seeks to deny the target, regardless of whether the other countries that share this control are U.S. allies or U.S. adversaries. A failure to account for the sanctions spoiler role that any country, whether ally or adversary, may play will undermine the ability to apply economic pressure.

6

Principle Six

Target adaptation is inevitable and strategically consequential.

Targets of economic pressure should be expected to evade and otherwise adapt to economic pressure. At scale, this adaptation can have negative and systemic effects on the ability of the United States to deploy economic pressure successfully now and in the future.

7

Principle Seven

Economic pressure is designed and executed as a campaign.

Economic pressure is iterative and dynamic. An economic pressure campaign defines a desired economic and political end state and continuously calibrates the application of economic pressure in response to changes in target behavior, market conditions, and geopolitical conditions to remain on a trajectory to that end state.

8

Principle Eight

Economic pressure is calibrated to be productive rather than counterproductive.

Economic pressure is applied with enough force to achieve political effect but is calibrated to avoid becoming counterproductive through hardening the resolve of the target, leading to negative systemic effects, or causing serious civilian harm.

9

Principle Nine

Economic pressure requires substantial government resources, efficient administration, and bureaucratic structures that facilitate integrated planning efforts.

It is a myth that sanctions or other forms of economic pressure are costless for the United States. Effective economic pressure requires a substantial government investment of resources and political capital, both domestically and for U.S. partners aligned with U.S. economic pressure goals.

Next Steps

An economic pressure doctrine is not effective if it is just words on paper. U.S. policymakers must commit to the idea of a doctrine that truly shapes and disciplines the wielding of U.S. economic pressure. Specific actions that U.S. policymakers could take to implement an economic pressure doctrine include:

- **Develop an economic pressure strategy** that outlines how they intend to use economic pressure in furtherance of U.S. foreign policy and national security goals.
- **Align legislation and appropriations** with economic pressure doctrine so that economic pressure operations have a doctrinally based legal framework and sufficient resources for robust implementation.
- **Mandate annual reviews** of economic pressure campaigns to assess their status relative to the three strategic principles regarding theories of victory, failure, and restraint and to enable adjustments (including removal of economic pressure) where warranted.
- **Strengthen strategic planning** for economic pressure to enable long-term, deliberative efforts to build economic pressure operations, including allowing time to address structural economic constraints that may impede the ability to build economic pressure.
- **Expand economic pressure doctrine** to go beyond the high-level principles outlined in this report and develop detailed doctrine at the operational and tactical levels for major areas of economic pressure.

America's ability to persuasively leverage its economic power is at an important inflection point. Years of accumulating economic pressure campaigns, development of adversarial adaptation capabilities, and ongoing shifts in the geopolitical environment mean that building economic pressure is harder than ever. At the same time, the goals of American economic pressure are becoming more expansive, including the controversial use of trade coercion targeted at U.S. allies. Doctrine can guide the future use of economic pressure with the goal of ensuring that the deployment of economic pressure is in America's long term strategic interests.

Introduction

“Foreign economic policy is a major instrument in the conduct of United States [sic] foreign relations. It is an instrument which can powerfully influence the world environment in ways favorable to the security and welfare of this country. It is also an instrument which, if unwisely formulated and employed, can do actual harm to our national interests.”

—NSC 68¹

THERE IS AN URGENT NEED for an American doctrine of economic pressure. While the United States has deployed economic pressure throughout its history, the current geopolitical moment has raised the stakes on its effective use. The United States faces a strategic competitor in the People’s Republic of China (PRC) that presents an economic and security challenge unlike any other that the United States has seen in the post–World War II era. At the same time, novel forms of economic pressure—namely, American trade coercion—dominate headlines and international relations. The changing view of the role that America should play in the world has led to massive shifts in the geopolitical environment. Economic pressure has become a leading instrument of U.S. foreign policy for friend and foe alike, and the international order increasingly has become defined by power politics rather than shared norms or rules.

Assessing the use of U.S. economic pressure is no longer a simple question of how to make tools like sanctions and export controls more effective. U.S. policymakers must answer the more foundational question of how the United States can build, sustain, and leverage economic power in a highly contested geopolitical environment, one in which the United States no longer enjoys unipolar power. As importantly, they must determine to what ends. Today’s economic pressure goals are at times traditional, such as coercing adversarial states to dismantle nuclear programs, and at other times deeply provocative and disruptive, such as imposing punishing tariffs on U.S. allies.

These difficult questions come at a time when U.S. economic pressure campaigns have accumulated to historic levels, as policymakers of both political parties consistently have reached for economic pressure tools for decades now. The United States is sanctioning dozens of countries, including ones with major economies such as Russia. It is wielding export controls at scale to degrade the PRC’s military capabilities. Its global trade wars have impacted nearly every country in the world. The sheer volume of U.S. economic pressure efforts creates challenges in sustaining each effectively, as policymakers struggle to devote sufficient time, political attention, and resources to individual programs. The scale of U.S. economic pressure also has accelerated efforts by other countries to develop ways to blunt U.S. economic power, including by seeking to develop systems and capabilities that are not reliant on the United States. This adaptation will have serious consequences for America’s future ability to leverage its economic might.

Facing these challenges requires a wholesale reimagining of how the United States deploys economic pressure. A good starting point is the development of an economic pressure doctrine to guide U.S. policy in this difficult environment. A doctrine establishes a common analytic framework and principles for

applying economic pressure in support of broader U.S. foreign policy and national security objectives.² Rather than mandating specific actions, an economic pressure doctrine establishes discipline in considering the use of economic pressure. It articulates “what we know to be true” from past instances of economic pressure, including how to successfully deploy economic leverage to achieve political effect as well as developing a shared understanding of the potential risks and unintended consequences. An economic pressure doctrine also can promote cohesion with other instruments of national power, including military power, which has a well-established doctrinal practice that guides the application of military force.

This paper focuses on economic pressure as a central element of U.S. economic statecraft. The global economy should be seen as a competitive domain in which the United States seeks to deploy both economic pressure and positive economic incentives to pursue its foreign policy and economic and national security interests. While recognizing the importance of positive economic statecraft, the focus of this paper is on the economic pressure elements of U.S. economic statecraft. Economic pressure is defined here as economic statecraft that is conducted in an adversarial manner toward a target nation, either by the United States alone or in cooperation with other aligned nations. It includes the deployment of economic power with the goal of altering the behavior of another nation, as well as that meant to constrain another nation’s capabilities without an expectation of behavior change.

Economic pressure is defined here as economic statecraft that is conducted in an adversarial manner toward a target nation, either by the United States alone or in cooperation with other aligned nations.

The concept of economic pressure is intended to encapsulate the varied policy objectives that can be pursued through adversarial economic means (for example, deterrence, coercion, and containment), as well as the broad range of restrictive economic tools that the United States deploys in pursuit of these objectives (for example, embargoes, financial sanctions, export controls, and tariffs). Economic pressure is intentionally a broader concept than economic coercion, reflecting that adversarial economic statecraft has expanded in recent years. This breadth enables comparison of new or recently revived types of economic pressure, such as trade coercion and technology containment, with more established modes of economic coercion, such as

embargoes and financial sanctions. The wide range of cases examined in this report reflect this diversity of goals and pressure mechanisms, with the ultimate goal of deriving doctrinal principles that are relevant across any type of economic pressure effort.

This report contributes to ongoing debates related to economic statecraft by taking a broad-based historical lens to the question of U.S. economic pressure. It is, admittedly, a U.S.-centric analysis, despite a recognition that many other nations are also developing economic pressure capabilities. However, this focus is justified by the unique position that America enjoys. Since World War II, it has been the primary guarantor of international peace and security. It has had the largest economy and, not coincidentally, has been the most frequent user of economic pressure. In the past decade, it has been at the forefront of developing new and varied methods to apply economic pressure, including innovations on traditional sanctions, export control, and trade tools. Yet, as the use of U.S. economic pressure has accumulated against an increasing range of targets, it is fair to ask what the United States has learned from its decades of economic pressure and whether its extensive use continues to serve U.S. interests.

A Brief History of U.S. Economic Pressure

Economic warfare was used in full force during and between the world wars, laying bare the potential to bring devastating harm to an opponent through economic means and lending an economic component to the context of total war.³ In the interwar period, the threat of economic war was seen as so powerful as to be a genuine deterrent to armed conflict, based on a view that no nation would dare risk total economic isolation. The use of economic warfare was not uncontroversial, and in some instances may have been counterproductive, as when an energy embargo provoked Japan into attacking Pearl Harbor, bringing the United States into World War II. The threat of economic sanctions may have inadvertently spurred military adventurism, as nations viewed territorial conquest as a more viable way to secure needed resources than through economic relations. Nonetheless, the United States and the international community drew lessons about the value of economic weapons as they built the postwar economic systems, intending to bind economies together as a deterrent to conflict while also empowering the newly formed United Nations to impose sanctions in support of international peace and security.

Economic pressure during the Cold War saw the rise of U.S. unilateral sanctions, including the still ongoing embargo of Cuba. The Office of Foreign Assets Control (OFAC) in the U.S. Treasury was established in 1950 to block the assets of Korean and Chinese nationals during the Korean War.⁴ The United States also introduced strategic trade controls, intended to prevent the Soviet Union from acquiring sensitive technologies, as part of its broader strategy to contain the advances of communism. Economic pressure efforts often were influenced by Cold War logic, such as how concerns over Soviet influence in the southern Africa

region tempered the U.S. appetite for sanctions on South Africa's apartheid government.

During the heyday of post-Cold War U.S. unipolar power, sanctions continued apace, with major economic pressure campaigns against Libya for its support for terrorism and pursuit of weapons of mass destruction (WMDs) and Iraq in response to its invasion of Kuwait and concerns over its WMD programs. The embargo on Iraq was blamed for widespread humanitarian devastation, leading to the “smart sanctions” push in which blunt embargoes were de-emphasized in favor of more targeted sanctions aimed at political elites and key leverage points.

The terrorist attacks of 9/11 were an important milestone in sanctions history, as they led to the development of massive new institutional capacity for the United States to track and target bad actors' use of international financial systems.⁵ While first developed for targeting terrorists and nonstate actors, these tools quickly became useful for other U.S. sanctions campaigns, including efforts to persuade North Korea (the Democratic People's Republic of Korea or DPRK) and Iran to give up their nuclear programs. Sanctions campaigns began to bear the hallmarks of modern sanctions as implemented today.

Sanctions also began to accumulate. Russia was subject to sanctions starting in 2014 in response to its annexation of Crimea, then hit with an expansive range of sanctions and export controls after its full invasion of Ukraine in 2022. Sanctions on Venezuela escalated to build pressure toward democratic reforms. With the notable exception of Iran during the negotiations for the Joint Comprehensive Plan of Action (JCPOA) nuclear deal and later examples in Zimbabwe, Syria, and Myanmar, sanctions tended to be a one-way ratchet, leading to sanctions stalemates in several heavily sanctioned states that had proven resistant to U.S. economic pressure.

From the mid-2010s forward, export controls became a more pronounced part of the economic pressure tool kit. Export controls on Huawei, a globally competitive Chinese telecommunications provider, sent shockwaves through the global technology industry. The Huawei precedent was followed with an expansion of U.S. controls on exports to entire technology ecosystems in China related to advanced artificial intelligence (AI) and semiconductors. Today, economic pressure applied through extreme tariffs is the latest chapter in the U.S. economic pressure story.

Analysis of the Report

The goal of this report is to develop a doctrine to guide application of economic pressure in pursuit of U.S. foreign policy and national security goals. It is easy for critics to argue that economic pressure is ineffective. Indeed, this report includes many cases of economic pressure failures and ill-advised foreign policy misadventures. It also seems too easy for policymakers to reach for economic pressure to address a range of foreign policy and

national security challenges, regardless of whether economic pressure is the right tool for the job. This report seeks to walk the line between these two poles. Economic pressure is an indelible and unavoidable part of statecraft. Oftentimes, foreign policy choices are hard ones and there are no good options. The presentation of an economic pressure doctrine is intended to support American policymakers as they navigate a sea of bad and worse options in the pursuit of U.S. interests.

This report uses a case study analysis to assess what has worked and, as importantly, what has not, over the past many decades of U.S. economic pressure. Rather than attempting to be exhaustive, the analysis is based on a representative sampling of major economic pressure cases across the wide breadth of prior U.S. efforts. The 20 cases included were selected to include a range of different types of economic pressure efforts, time periods, and effectiveness. In a handful of cases, one economic pressure campaign is divided into two time periods to reflect a major shift in the U.S. approach that had a meaningful impact on the overall assessment of effectiveness.

The primary research interest of this report is how economic pressure is used in major state-to-state disputes that are short of total war. Accordingly, the focus is on the use of economic pressure in cases for which the United States is not in a state of total war with the target country, though some military force is a relevant factor in several cases. The cases also do not include sanctions against nonstate actors, a rich topic worthy of study but outside the scope of this focus on state-to-state disputes.

The case studies in Chapters 1 through 4 cover legacy embargo cases (Cuba, South Africa, Libya [for WMD purposes], Libya [for terrorism purposes], and Iraq); modern sanctions cases (Iran pre- and post-JCPOA, Russia, Venezuela pre- and post-2025 military actions, and North Korea); technology denial cases (Cold War strategic trade controls, restrictions on Chinese telecommunications companies [“Chinese telecos”], AI and chip ecosystem controls, and Russia export controls); and trade coercion (China 2018–2025, China 2025–present, global, North America, and transatlantic).

In each case, the analysis includes an overall rating of whether the stated foreign policy or national security goal was achieved, based on observable facts. The overall ratings are “success,” “failure,” or “mixed.” For example, the Cuba case has an overall rating of “failure” as the policy objective of regime change clearly has not been met. As another example, the Venezuela post-2025 case has a rating of “mixed,” as the strike against Nicolás Maduro partially achieved the objective of regime change, albeit through military rather than economic means.

The analysis also includes a separate, qualitative rating of 11 criteria that often are associated with effective economic pressure, indicating whether the United States aligned with generally accepted best practices. These economic pressure criteria ratings are used in Chapters 1 through 4 to derive lessons learned from

Criteria Associated with Effective Economic Pressure

STRATEGIC CONTEXT

- **Clear articulation of realistic goals:** The overall foreign policy or national security goal was clearly articulated and realistic, and the role that economic pressure was to play in achieving that goal was also well articulated and realistic.
- **Backed by military force:** Military force was an available option to support the foreign policy or national security goal.

OPERATIONAL CONSTRUCTION

- **Effective chokepoint:** The United States effectively identified an asymmetric point of leverage or chokepoint.
- **Reversibility:** Economic pressure was linked to changes in target behavior.

- **Impact on political incentives:** The economic pressure brought to bear on a target was designed to alter their political incentives and make it more likely that the target will accommodate U.S. demands.
- **Allied alignment:** The United States and its allies were aligned on an economic pressure effort, both in terms of assessment of a threat and the role that economic pressure can play in addressing the threat.
- **Nonallied participation:** Countries other than U.S. allies had incentives to align with U.S. economic pressure.
- **Implementation:** The economic pressure campaign was effectively implemented, resourced, and enforced.

DURABILITY

- **International legitimacy:** The international community supported or was neutral on the economic pressure campaign, or there was a connection between the use of economic pressure and upholding the rules-based international order.
- **Sustainability for U.S. economy:** The economic pressure campaign did not cause negative impacts on the U.S. economy broadly or on influential groups of key economic stakeholders.
- **Systemic effects:** The economic pressure campaign did not lead to countermeasures, retaliation, or other actions by states to alter economic systems in ways that erode future economic leverage of the United States.

similar types of economic pressure cases, then further explored in Chapter 5 across all cases. More details on these ratings and their methodology are included in Appendix B.

Chapter 5 examines the 11 criteria of effective pressure across all 20 sanctions cases to develop a sense of “what we know to be true” about the criteria when considering such a wide range of cases. The key insights from this analysis are the building blocks of the doctrine of economic pressure. From there, these insights are further whittled down and integrated to develop the nine principles of an economic pressure doctrine that are outlined in the conclusion. In sum, 20 cases studies are examined using 11 criteria; the criteria are then compared across cases to develop a concise set of nine principles for an American economic pressure doctrine.

The analysis of the report greatly benefited from the substantial body of existing literature on coercive economic statecraft and other economic pressure mechanisms. Appendix C includes a brief list of key sources that were influential in the report’s analysis.

Chapter 1: Legacy Embargo Cases

EMBARGOES ARE THE BROADEST category of economic pressure, potentially impacting the entirety of the target nation’s economic engagement with the global economy. The objective of an embargo is to deny access to key markets such that the target nation determines that the costs of the embargo outweigh the benefits of pursuing its course of action. At the extreme, an embargo can formally bar all trade, investment, and financial relations with the target country, as in the long-standing U.S. embargo on Cuba. Other times, a full embargo may not be officially declared, but restrictions can aggregate over time, or over key sectors, such that the cumulative effect is that of a de facto embargo.

Embargoes have a mixed track record. This section looks at major legacy embargo cases of Cuba, South Africa, Libya, and Iraq. The cases were chosen as a sampling of effective or failed embargoes, as well as embargoes imposed in the Cold War and those in the post–Cold War period. All the cases have now concluded except Cuba’s. Cuba is a classic example of a failed embargo, as decades of a unilateral U.S. embargo have failed to dislodge the Castro regime. South Africa provides a contrasting Cold War case, as partial embargoes played a role in the end of apartheid. Libya is a rare example of a rogue state agreeing to halt a nuclear weapons program and state-sponsored terrorism under economic pressure (and military threat). Finally, the embargo on Iraq after its invasion of Kuwait is a landmark case largely because of its devastating humanitarian impact, one that ushered in the “smart sanctions” movement, intended to mitigate the collateral damage of economic pressure on civilians.

Cuba (1962–Present)

Cuba is often cited as the poster child for failed economic pressure. Decades of a U.S. embargo have not led to political change in Cuba. Instead, the embargo has incited widespread international opposition for its negative impacts on the humanitarian situation in Cuba. Both the United States and Cuba have become entrenched in their respective positions, making the possibility of political rapprochement and lifting of the embargo difficult to contemplate.

Origins of the U.S. Embargo

The U.S. embargo on Cuba began in 1960, after the new regime of Fidel Castro nationalized U.S. energy majors and other U.S. businesses operating in Cuba. Through a series of quick escalations, the U.S. response resulted in a complete embargo on all trade with Cuba and a diplomatic rupture.⁶ The goal of the embargo was to create economic pressure that would erode popular support for Castro, ultimately enabling him



to be overthrown.⁷ What began as a dispute over U.S. assets morphed into a broader goal of preventing Cuba from becoming a Soviet foothold in the Western Hemisphere and then evolved again into punishment for Castro’s persistent hold on power. Fidel Castro handed power to his brother in 2006 and died in 2016.⁸ The embargo remains.

Throughout the 65-year embargo, U.S. presidents periodically have explored increased engagement with Cuba. This was driven, at times, by major geopolitical shifts, including the end of the Cold War, when the Soviet Union ceased to exist and no longer would serve as a patron for Cuba.⁹ On other occasions, it was motivated by U.S. policymakers’ assessments that the embargo had outlived its usefulness and that engagement might better serve U.S. interests.¹⁰ However, none of these efforts led to lasting change in U.S.-Cuba relations. More often than not, periods of engagement were followed by snapbacks in restrictions under subsequent U.S. administrations, highlighting that shifts in U.S. embargo policy were driven by domestic political considerations more than any observed changes in Cuban behavior. The Cuban-American community, concentrated in the electoral battleground state of Florida, became a powerful advocate for the continuation of the embargo.¹¹ U.S. legislation codified the embargo in the 1990s, constraining future U.S. presidents from offering relief.¹² The U.S. embargo became immovable, as the domestic political costs of removing it consistently outweighed other considerations.

Hallmarks of a Failed Economic Pressure Campaign

The Cuba case includes several hallmarks of a failed economic pressure effort, including unrealistic goals, the presence of alternative trade partners, lack of international support, and serious concerns over humanitarian impacts.

The embargo was predominantly a U.S. measure, and it did not result in Cuba's full isolation from the international economy. At the time that Castro came to power, U.S.-Cuba ties were economically important for Cuba. The United States was Cuba's largest trade partner and its largest importer of sugar, Cuba's dominant export product.¹³ Despite this economic leverage, once the embargo was imposed, Cuba was able to pivot to alternative trade partners. These included the Soviet Union, which sent \$5 billion in subsidies to Cuba annually, as well as close U.S. allies, such as Canada and Europe.¹⁴ Cuba's move toward the Soviet Union led to criticism that the embargo was counterproductive in that it encouraged rather than disincentivized closer Cuban-Soviet economic ties.¹⁵ Today, China is also among Cuba's largest trading partners.¹⁶

At no point was the United States able to garner broad international support for the embargo. The sole exception was a brief period from 1964 to 1975, during which the Organization of American States (OAS) imposed diplomatic and economic sanctions in response to Cuba's support of guerrilla activities in the region.¹⁷ The OAS had also supported the U.S. military quarantine of Cuba during the 1962 Cuban Missile Crisis, driven by member governments' fears of a Soviet nuclear capability in the Western Hemisphere.¹⁸ The hemispheric position, however, did not forestall the availability of trade with Cuba's other emerging trade partners, and the lifting of the OAS sanctions in 1975 enabled Cuba to engage more freely within the hemisphere again. The United States never attempted to secure UN support for its unilateral embargo, recognizing that opposition from U.S. allies and more broadly made that a losing proposition. Indeed, since the 1990s, the UN General Assembly annually has voted against the embargo nearly unanimously, citing it as a violation of the UN Charter and international law.¹⁹

To compensate for the lack of international support, the United States at times has reverted to extraterritorial measures. The Cuban Democracy Act of 1992 barred U.S.-owned foreign subsidiaries from engaging with Cuba.²⁰ The Cuban Liberty and Democratic Solidarity Act of 1996 (LIBERTAD, or more commonly known as the Helms-Burton Act) controversially authorized U.S. nationals who had suffered unlawful seizures of their Cuban assets to sue persons who trafficked in those assets (i.e., European firms that owned assets that had been seized from U.S. firms in the 1960s now could be sued in U.S. courts).²¹ Europe strongly objected and passed a blocking statute in response, and the United States froze implementation of the civil action provisions in Helms-Burton to mitigate the

diplomatic fallout. President Donald Trump's first administration, less sensitive to ruffling feathers with allies, reactivated these measures in 2019, leading to a flurry of claims.²²

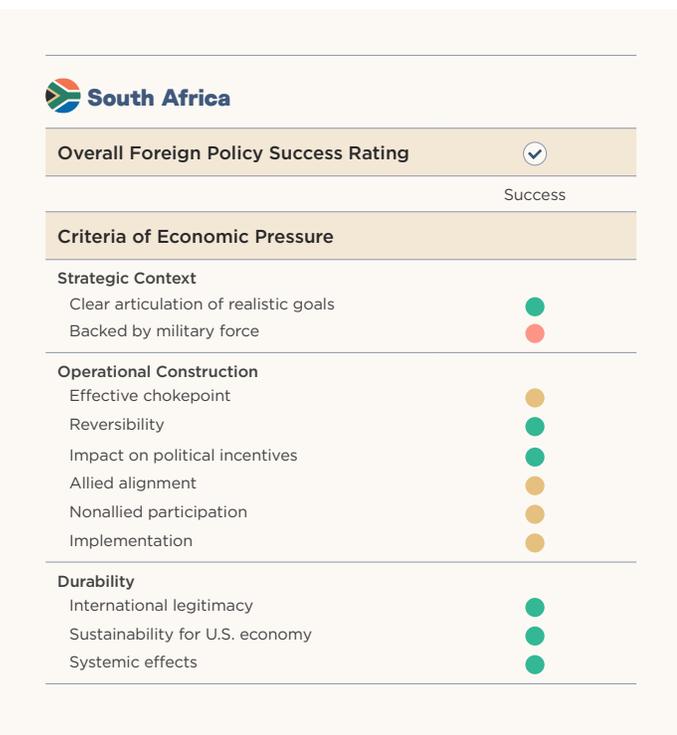
Humanitarian concerns have been a core driver of international opposition to the embargo. Despite the ability of Cuba to trade with other external partners, the U.S. embargo has led to a broader chilling effect on Cuba's trade that has contributed to shortages of food and medicine, as well as suppressing the overall standards of living for the Cuban people.²³ While food and medicine are notionally exempted from the U.S. embargo, cumbersome licensing and verification processes create high practical hurdles for importing these humanitarian goods.²⁴ The threat of extraterritorial measures and the tendency of financial institutions to over-comply with sanctions in high-risk jurisdictions have amplified the effect of the embargo beyond just direct U.S.-Cuba trade.²⁵ While Cuba's broader economic mismanagement cannot be discounted, the presence of the U.S. embargo both exacerbates the country's economic troubles and provides the Cuban regime with a convenient scapegoat.²⁶

A final consideration in the Cuba case is the potential for the use of military force. Early in the embargo, this was a prominent feature. Cuban exiles supported by the United States attempted regime change in the failed Bay of Pigs operation in 1961.²⁷ The CIA considered multiple options to assassinate Castro until U.S. policy disavowed political assassination in the 1970s.²⁸ However, rather than incentivizing change, the U.S. military actions reinforced Castro's opposition to the United States, a theme that would be fundamental to his positioning on the international stage for the entirety of his regime.²⁹ While to date the use of force has been unable to advance the broader U.S. goal of facilitating regime change in Cuba, the current Trump administration has brought force back into the equation with its decapitation strike against Nicolás Maduro in Venezuela (a key supporter of Cuba) and subsequent threatening statements regarding Cuba, along with an active military quarantine around Cuba.³⁰

The U.S. embargo has failed demonstrably at its primary objective of forcing regime change in Cuba. There is some evidence that it may have had partial success in secondary objectives, such as reducing the Castro regime's efforts to export revolution to other countries in the region, which was cited by the OAS as justification for lifting its sanctions. One also might argue that the embargo, at least initially, was the least of bad options available for U.S. policymakers who sought to clearly signal their disapproval of the Castro regime and the expropriation of U.S. assets.³¹ However, the inflexibility of the U.S. support of the embargo has meant that today it is largely a punitive measure, one that has failed to incentivize meaningful changes in regime behavior or garner broader international support.

South Africa (1963–1994)

South Africa was subject to both U.S. and multilateral sanctions for decades over its apartheid system of racial segregation, as well as for its role in regional political disputes. Apartheid was brought to an end in 1994 when Nelson Mandela was voted into office as South Africa’s first president elected through a democratic process that enfranchised all races. The international isolation of the South African apartheid government, through sanctions and other measures dating back to the 1960s, arguably played a role in facilitating the end of apartheid. Indeed, Mandela and other post-apartheid leaders often praised sanctions as instrumental.³²



The exact role of sanctions, however, is more complicated when viewed in the context of other variables that came to a head in the critical mid- to late-1980s period that led to the endgame for apartheid. Economic pressure had multiple sources, including private sector capital flight driven by escalating political violence in the country. The strength and moral appeal of the domestic opposition to apartheid was essential. Geopolitical context was also important, as South Africa had been embroiled in the Cold War proxy battles for influence throughout the southern Africa region. Rather than a clear-cut case of economic pressure success, South Africa’s story can be read as an instance in which economic pressure provided an important source of external political pressure, adding fuel to the fire that already was raging in South Africa as the anti-apartheid movement pushed for freedom.

Sanctions Prior to the 1980s Crisis

Apartheid was introduced in South Africa in 1948 when the Afrikaner National Party came into power, institutionalizing strict racial segregation in nearly every facet of life in South Africa.³³ Throughout the apartheid period, the South African government engaged in a widespread campaign to suppress anti-apartheid protests and organizations, often sparking international condemnation and sanctions. Multilateral sanctions were imposed on South Africa throughout the 1960s and ’70s. However, the economic pressure levied by the sanctions was undermined by their limited nature, driven in part by resistance of the United States to imposing harsher measures.

The United Nations encouraged voluntary embargoes of arms and oil in 1963, citing concerns over apartheid as well as a dispute over South-West Africa (now Namibia), which South Africa claimed in contravention to international law and in which it also applied the apartheid system.³⁴ The United States supported the voluntary arms embargo, implementing it in U.S. domestic law along with other limited sanctions, such as restricting export loans to South Africa.³⁵ Other key arms exporters, including the UK and France, agreed only to partial arms embargoes, continuing to sell military goods to South Africa for its external defense.³⁶ Even at the time of imposition, the voluntary oil and arms embargoes were seen as potent mostly for their political effect rather than the economic constraints that they might impose.³⁷

UN sanctions ratcheted up in 1977 after a brutal government crackdown on student protesters, making the arms embargo mandatory.³⁸ The UN arms embargo was precedent-setting, as it represented the first time that mandatory sanctions had been imposed to address threats to international peace and security arising from a UN member state.³⁹ However, the United States remained opposed to tightening the voluntary oil embargo, despite broad support for more stringent sanctions in the UN General Assembly.⁴⁰

Outside the specific debates over sanctions, the U.S. stance toward the apartheid government was influenced by broader U.S. strategic aims in the southern Africa region, which was a complicated web of Cold War proxy battles and contested territorial claims across Angola, Rhodesia (now Zimbabwe), and South-West Africa.⁴¹ South Africa’s engagement throughout the region was disruptive, including its paramilitary activities across borders. The combustible mix of Cold War geopolitics and post-colonial independence struggles led the United States to balance pushing the apartheid government for domestic reform with the need for strategic engagement with that same government for purposes of regional stability.

Moving Toward the Endgame

Circumstances in South Africa changed dramatically during the 1980s in a series of events that ultimately led to the end of

apartheid. Changes to the country's constitution in 1984, which reinforced political exclusion of the black majority, triggered waves of violent protest, which were in turn met by a government crackdown and declaration of a state of emergency across the country.⁴² The UN Security Council (UNSC) condemned the new constitution, declaring it “null and void” due to its violation of human rights principles.⁴³ The spiraling crisis in the following years made clear that the apartheid system was unsustainable. Calls escalated for international pressure on the apartheid government, and while additional sanctions were implemented, other factors were highly influential in determining the country's fate.

The United States under President Ronald Reagan's administration opposed further sanctions, favoring instead the strategy of “constructive engagement,” which relied on quiet engagement with the apartheid government to encourage incremental reforms while also cooperating with it on regional issues.⁴⁴ As the crisis in South Africa worsened, the constructive engagement strategy was heavily criticized, with the Bishop Desmond Tutu, who won the Nobel Peace Prize for his anti-apartheid activism, calling it an “unmitigated disaster.”⁴⁵ Under pressure from Congress, the Reagan administration imposed limited sanctions in 1985, including restrictions on loans, export assistance, certain advanced technology exports, and currency trade.⁴⁶ Dissatisfied with the scope of these sanctions, Congress in 1986 passed the Comprehensive Anti-Apartheid Act, overriding a veto from Reagan.⁴⁷ The act mandated a range of more expansive sanctions while also requiring the United States to advocate for multilateral sanctions at the UN.⁴⁸ The U.S. sanctions campaign was designed to push the South African government to move more quickly toward a negotiated end to apartheid, while also compelling it to end its military activities in the region.⁴⁹

Other countries also imposed sanctions of varying scope in the mid-1980s.⁵⁰ The United Nations, however, did not materially expand its sanctions, beyond tightening the arms trade restrictions. The Reagan administration, despite losing the fight in Congress, remained staunchly opposed to the expansion of sanctions, and it—along with Prime Minister Margaret Thatcher's administration in the UK—blocked UN efforts to impose more stringent measures at the multilateral level.⁵¹

As South Africa's crisis escalated over the mid- to late 1980s, the sanctions imposed on South Africa remained piecemeal and, accordingly, so were their economic pressure effects. The UN oil embargo remained voluntary, and South Africa was able to blunt its effect through alternative supply sources and stockpiling.⁵² The UN arms embargo, rather than constraining South Africa, had led to a reinvigoration of the domestic arms industry.⁵³ The new measures imposed in the mid-1980s by the United States and other countries had some impact, with a General Accounting Office report assessing that South African growth had largely stagnated after the sanctions.⁵⁴

While sanctions-induced effects may have been modest, other sources of economic pressure were influential in the context of the brittle apartheid economy. The enforced racial segregation caused substantial inefficiencies within the labor market, with unemployment in the black majority population rising to 60 percent at times.⁵⁵ The government also incurred high defense costs and pursued policies of economic self-sufficiency, in part due to concerns about future sanctions.⁵⁶ The result was high inflation, short currency supplies, and unsustainable levels of short-term debt.⁵⁷

South African debt turned out to be an acute problem, one with outsized impact in building economic pressure, even if the pressure was predominantly from market forces rather than government-imposed sanctions. South Africa had a practice of securing short-term loans, which required it to seek new financing on a regular basis. In the mid-1980s, foreign banks started to deny future loans as they perceived higher market risk from the escalating violence, with President P.W. Botha's hardline stance signaling no end in sight to the crisis.⁵⁸ The banks' decisions were not political in that they were not intended to pressure the apartheid government, but instead reflected a hard-nosed commercial assessment about the risks of nonpayment amid the escalating crisis. Importantly, the capital flight was sparked in 1985—which preceded U.S. sanctions—highlighting that it was driven by commercial risk perceptions rather than legal compliance requirements.⁵⁹ U.S. financial sanctions eventually were imposed, but these reinforced existing market dynamics, rather than creating new practical restrictions.

Boycott and divestment campaigns, organized by private citizens to name and shame international companies in South Africa, represented another economic pressure point. By 1988, a majority of U.S. firms in South Africa had divested from their operations in the country.⁶⁰ The direct economic impact of these campaigns was minimal, however, as in most cases the firms were simply bought by a South African owner, with limited knock-on effects on the business's operations or employees.⁶¹ The political impact was more important as the divestment campaign reinforced broader perceptions about spiking levels of risk associated with the South African market.⁶²

Role of Sanctions in Ending Apartheid

There are many reasons why economic pressure in South Africa should not have worked. Indeed, it did not work for much of the pre-1980s period, when the limited and piecemeal nature of the embargoes constrained the amount of economic pressure brought to bear against the apartheid government. The U.S. stance, opposing broader sanctions and seeking productive engagement with the South African government, loomed large. When the end of apartheid finally came, while U.S. sanctions had been expanded, they fell short of a full embargo and were not matched by comparable multilateral measures.

In the context of the broader economic and political upheaval of South Africa in the mid-1980s, it is difficult to parse the impact of sanctions as opposed to other dynamics associated with the inefficient apartheid economy, capital flight, and divestment campaigns. Perhaps the most important lesson is that the strongest impact of sanctions may be political and psychological, rather than economic. Sanctions were like putting a finger on the bruise of an already damaged economic reputation. Sanctions also contributed to perceptions that things were getting worse, not better, in South Africa’s political crisis. The condemnation of the international community, as expressed through government-led sanctions and citizen-led divestment campaigns, reinforced market perceptions of commercial risk in the South African economy. When combined with expulsion of South Africa from cultural and sporting events, the unmistakable signal was one of international isolation.⁶³

SANCTIONS WERE LIKE PUTTING A FINGER ON THE BRUISE OF AN ALREADY DAMAGED ECONOMIC REPUTATION.

However, other factors besides sanctions and economic pressure also were highly relevant in the endgame of apartheid. The fall of the Soviet Union meant that there was one less strategic reason for the United States to find accommodation with the apartheid government. Southern African regional tensions also started to dissipate, and South Africa relinquished its disputed claim over South-West Africa.⁶⁴ Domestic political events played a critical role. The hardline Botha administration ended when the president had a heart attack in 1989 and power transitioned to FW de Klerk, who quickly started a genuine political reform and negotiation process, leading to the historic 1994 elections that brought Mandela into office.⁶⁵

One factor that was not on the table was U.S. use of military force.⁶⁶ Unlike in the Libya embargo case that was unfolding in parallel, the U.S. government did not contemplate military action, likely because apartheid, while an affront to U.S. values and bearing implications for U.S. interests, did not present a direct threat to U.S. security or lives. That is not to say, however, that violence was irrelevant to the South Africa case. The domestic opposition to the apartheid government included a strong element of armed opposition, and the violence of the government’s crackdown repeatedly aroused international condemnation of the government and sympathy for the anti-apartheid movement. But the use of violence was constrained to the domestic (and at times, regional) actors, rather than U.S. engagement.

It is tempting to draw a lesson about the might of economic sanctions from the South Africa case. Sanctions were applied, the policy objective was achieved, therefore sanctions worked. However, it is clear from context that sanctions played an important but nonetheless secondary role to the broader push for change coming from within South Africa. Sanctions were a limited tool, one that served to reinforce other economic and political pressure points facing the apartheid government, rather than creating an organic movement toward reform on their own strength.

Libya (1979–2006)

Economic pressure on Libya is credited with convincing Libyan leader Muammar al-Qaddafi to renounce terrorism and relinquish the pursuit of WMD capabilities, which he did in 2003 after decades of unilateral U.S. sanctions and a decade of UN sanctions. Yet, while sanctions were part of the story, they were not the only factor, and perhaps not even the determinative one, that led to the 2003 decision. A prolonged diplomatic effort and the demonstrated threat of U.S. military action in Iraq, along with the fact that Libya was pursuing, but had not yet come close to actually possessing, a nuclear weapon, likely had as much weight in influencing Libya’s trajectory. While the Libya case is often hailed as an economic pressure success story, the reality is a more complex picture of how multiple levers of U.S. power worked in tandem.

Libya		WMD	Terrorism
Overall Foreign Policy Success Rating		✓	✓
		Success	Success
Criteria of Economic Pressure			
Strategic Context			
Clear articulation of realistic goals	●	●	●
Backed by military force	●	●	●
Operational Construction			
Effective chokepoint	●	●	●
Reversibility	●	●	●
Impact on political incentives	●	●	●
Allied alignment	●	●	●
Nonallied participation	●	●	●
Implementation	●	●	●
Durability			
International legitimacy	●	●	●
Sustainability for U.S. economy	●	●	●
Systemic effects	●	●	●

Libya's Terrorism and WMD Pursuit

U.S.-Libyan relations have a long history marked by violence, as well as economic pressure, dating back to the early days of Qaddafi's reign. Throughout the 1970s, Libyan support for terrorism connected to a surge of terrorist activity in the West.⁶⁷ In 1979, the United States designated Libya as a state sponsor of terrorism, triggering U.S. restrictions on arms trade and foreign assistance.⁶⁸ Throughout the 1980s, U.S. unilateral sanctions escalated, including restrictions on oil trade and sales of energy equipment to Libya.⁶⁹ The U.S. restrictions reached de facto embargo status in early 1986 when President Reagan froze Libyan assets in the United States and banned all trade with Libya in response to Libyan-supported terrorist attacks on airports in Rome and Vienna that killed nearly 20 people.⁷⁰ Tensions escalated further that year with the bombing of a Berlin nightclub frequented by U.S. soldiers, which was followed by unilateral U.S. military strikes on Libya. Despite the clear threat that Qaddafi posed, the economic pressure effort remained a predominantly unilateral U.S. affair.

The tide turned after the bombings of Pan Am Flight 103 over Lockerbie, Scotland, in 1988, and UTA Flight 772 over Niger the following year, which together killed hundreds and were clearly attributed to Libyan support and direction.⁷¹ International outrage translated into UN sanctions in 1992 imposing arms sales and air travel restrictions, followed in 1993 by bans on the sale of petroleum equipment to Libya and freezes of certain Libyan assets.⁷² The UN sanctions were directly linked to the bombings, and a key condition for the lifting of sanctions was the extradition of the bombing suspects to the UK to stand trial.⁷³ The UN sanctions remained in place until 2003 and only were lifted in response to several concrete steps taken by Libya to atone for the bombings, including extradition of the suspects, compensation to the victims' families, and formally accepting responsibility for the attacks.⁷⁴

In parallel to its sustained terrorism campaign, Libya also pursued a nuclear weapons capability for decades and reportedly reinvigorated these efforts in the 1990s.⁷⁵ By this point, the United States had already sanctioned Libya to a nearly maximal extent through unilateral measures. U.S. partners maintained restrictions on arms sales, and the combined effect of the technology transfer restrictions likely served as a constraint on the development of the Libyan WMD programs.⁷⁶ However, U.S. partners and the international community declined to engage in a broader economic pressure campaign to coerce Qaddafi to halt WMD development. International support for economic pressure was focused on the specific actions related to the Pan Am and UTA bombings, and no UN sanctions were imposed specifically related to the WMD issues. U.S. policy, however, continued to link sanctions relief to both terrorism and WMD concerns, specifically tying the potential for relief from U.S. unilateral sanctions to progress made in disavowing and dismantling the WMD programs.

Throughout the 1990s, Libya started to probe for U.S. willingness to engage in negotiations regarding sanctions relief in exchange for halting its WMD programs and support for terrorism.⁷⁷ State Department assessments at the time concluded that Libyan support for terrorism had been reduced, indicating that a deal was potentially achievable.⁷⁸ Secret negotiations ultimately culminated in Qaddafi's 2003 decision and the subsequent process of lifting both UN and U.S. sanctions.

Why Did Qaddafi Give Up?

In 2003, Qaddafi fulfilled key UN demands related to the Pan Am and UTA bombings and subsequently also made the stunning announcement that he would relinquish the WMD programs. Rather than a clear-cut sanctions victory, however, the underlying factors that motivated these decisions were likely more complex.

By 2003, economic pressure had accumulated on Libya, but this was a slow-burn process.⁷⁹ Under unilateral sanctions in the 1980s, U.S. economic pressure impacted Libya's critical oil sector but ultimately was muted as Libya shifted to European partners, allowing it to maintain consistent production levels despite the U.S. sanctions.⁸⁰ The 1992/3 UN sanctions amplified economic pressure but, importantly, did not impose a full multilateral embargo on commercial interactions. In the critical oil sector, UN restrictions were limited to sales of equipment that would be important for Libya's future oil production. Current oil trade was deliberately omitted from the UN measures, due to European economies' reliance on imports from Libya.

The divergence between U.S. and UN measures created predictable friction. In the mid-1990s, Libya required significant investments in its energy infrastructure, which unilateral sanctions prevented U.S. companies from providing. To block interested European companies from backfilling for U.S. capabilities, the United States enacted the Iran-Libya Sanctions Act (ILSA) in 1996, which mandated sanctions on foreign companies that made investments of a certain size in Libya. The extraterritorial application of U.S. law and the potential for U.S. sanctions on EU firms outraged the EU and led to it passing its own blocking statute to counter ILSA.⁸¹ No ILSA sanctions were ever imposed, with President Bill Clinton instead accepting enhanced EU cooperation on counterterrorism as justification to not implement ILSA as Congress intended.⁸²

The continued carve-outs for European oil trade with Libya notwithstanding, economic pressure accumulated over the 1990s as oil prices fell and Libya was constrained from accessing the equipment and technology necessary to upgrade its energy sector.⁸³ Growth stagnated and inflation and unemployment skyrocketed, causing enough economic pain to translate into increasing political discontent within Libya.⁸⁴ Simultaneously, Qaddafi faced increased pressure from domestic political threats, including Islamist opposition and security threats from al-Qaeda.⁸⁵ The precariousness of the domestic political and

economic situation meant that internal threats to his hold on power had increased, and reengagement with the international community could serve a useful hedging role.

As the costs of international isolation built up, the benefits of maintaining the WMD programs also declined. By the time it relinquished its WMD programs, Libya was years away from developing a working nuclear weapon.⁸⁶ U.S. officials at the time assessed that Libyan capabilities, while concerning, were not an imminent threat.⁸⁷ In contrast to North Korea, which had advanced significantly further by that time and saw possession of a nuclear weapons capability as a guarantor of regime security, Libya’s program was incurring significant economic costs without advancing to the point that it could play a similar role for the Qaddafi regime.⁸⁸ As Libya sought to reorient its role within the international community, its WMD programs became more valuable as a negotiating chip than as a deterrent to regime change efforts.

The possibility of U.S. military action was ever present. The United States had used force against Libya in the 1980s, including in skirmishes in the Gulf of Sidra (international waters to which Libya laid claim) and the 1986 military strikes, which killed members of Qaddafi’s family and dozens of others.⁸⁹ In announcing the 1986 strikes, President Reagan clearly stated that the United States had tried sanctions and that they did not work, as justification for why military action was needed.⁹⁰ Qaddafi’s decision to halt the WMD programs came just months after the U.S. invasion of Iraq, which also had been prompted by WMD concerns, leading to debate over whether the invasion, and its demonstration of U.S. military capabilities and willingness, forced him to capitulate. Given Qaddafi’s own personal experience on the receiving end of U.S. military actions, the show of force was almost certainly a factor in his decision and perhaps a decisive one. Additionally, prolonged economic pressure, multi-lateral coordination, and intense diplomacy all had set the stage prior to 2003.

U.S. and UN Relief

The process of easing U.S. and UN sanctions had important differences. The UN sanctions were tied to specific acts related to the Pan Am and UTA bombings. When the UNSC voted to lift the sanctions in September 2003, the United States abstained, noting the remaining concerns it had regarding Libya’s WMD programs and that U.S. unilateral sanctions would not be impacted by the UN sanctions easing.⁹¹ Importantly, the UNSC vote occurred before Qaddafi’s announcement in December of that year that he would halt the WMD programs, clearly highlighting that the UN process related to terrorism was distinct from the negotiations with the United States over WMDs. U.S. unilateral sanctions were lifted later and only when tied to specific WMD-related actions by Libya, including inspections and destruction of key capabilities.⁹² By 2006, U.S. unilateral measures had been lifted, and Libya

was removed from the U.S. list of state sponsors of terrorism. Economic pressure from both the United States and the UN had aggregated to help force Libya to the negotiating table, but the conditions for sanctions easing were clearly distinct.

Postscript

The Libya success story has an important postscript. Amid the Arab Spring uprisings, NATO forces supported Libyan opposition forces seeking to overthrow Qaddafi’s regime, an effort that ultimately led to Qaddafi’s capture and execution in 2011.⁹³ Qaddafi’s demise has become a cautionary tale for other rogue states pursuing or possessing a nuclear capability.⁹⁴ Giving up the nuclear program ultimately did not protect Qaddafi from U.S. military force, and the lack of a nuclear deterrent left Qaddafi vulnerable.⁹⁵ In the end, the United States was not a friend of Qaddafi.

Iraq (1990–2003)

The UN embargo on Iraq is a milestone case as its severe impact on the Iraqi population sparked opposition to the use of broad embargoes and led to calls for “smart sanctions” to mitigate civilian impacts.⁹⁶ The embargo on Iraq initially had strong support, as the international community responded first to Iraq’s invasion of Kuwait and then to concerns over its WMD programs. But international support quickly eroded as the embargo became protracted and the humanitarian consequences became apparent, leading to widespread defections from the international coalition supporting the embargo.



Invasion of Kuwait

The UN embargo first was imposed on Iraq in 1990 as an immediate response to Iraq's invasion of neighboring Kuwait, which was widely viewed as a blatant violation of international law and a direct threat to regional security.⁹⁷ The initial goal of the embargo was to compel Iraqi leader Saddam Hussein to withdraw from Kuwait, as well as to deter similar acts of aggression elsewhere, using economic pressure as a means to avoid or delay the use of military force. However, the embargo failed to compel Iraq to change course, leading to the First Gulf War. Under a UN mandate, the United States and an international coalition took military action in early 1991 to restore Kuwait's sovereignty and force Iraq's withdrawal.⁹⁸

After the military victory, the UN kept the comprehensive embargo in place, with the goal shifting from compellence to a containment regime that sought to limit Iraq's military capabilities and regional ambitions. The UNSC resolution at the end of the war also called for the complete dismantlement of Iraq's WMD programs, leading to a prolonged and contentious process of international inspectors attempting to verify Iraq's compliance.⁹⁹ The inspection process, in theory, could have led to an easing of the UN embargo but, in practice, never gained traction given mistrust over Iraq's intentions and its persistent obfuscation of inspection efforts.¹⁰⁰

The UN embargo was immediate and comprehensive, imposed within days of the invasion of Kuwait. Unlike most other cases, which involved slow ratcheting up of economic pressure, Iraq was subjected almost immediately to a full trade embargo, including for its critical oil exports, alongside comprehensive financial measures.¹⁰¹ This approach was highly disruptive to the Iraqi economy, leading quickly to large-scale economic and humanitarian damage.¹⁰² Without oil revenue, Iraq lost its primary source of foreign exchange and with it the ability to import food, medicine, and basic consumer goods, even though UN sanctions had some limited carve-outs for humanitarian purposes. This led to widespread shortages, increased inflation, and the collapse of the Iraqi dinar. Impacts of the embargo were compounded by the physical damage to Iraq's economic infrastructure from the war, which one UN official called "near apocalyptic," with the country's electricity generation, water treatment, and transportation networks in disrepair.¹⁰³

Oil-for-Food

As humanitarian conditions deteriorated, the UNSC introduced the Oil-for-Food Program in 1995, allowing Iraq to sell limited quantities of oil under strict conditions. Proceeds from oil sales were deposited into UN-controlled escrow accounts rather than transferred to the Iraqi government, with the use of funds approved only for humanitarian imports.

Despite these restrictions, the Iraqi government was allowed to choose where it sold its oil as well as which vendors were

selected to purchase humanitarian goods with Iraqi oil profits. This led to significant corruption, with the Iraqi government skimming billions of dollars from sales through kickbacks and other schemes.¹⁰⁴ At the same time, Iraq engaged in extensive oil smuggling to neighboring states, including Turkey, Jordan, Syria, and countries in the Gulf. Neighboring governments facilitated or overlooked the trade for a combination of economic and political reasons, including access to discounted oil and opposition to the humanitarian effects of the sanctions, weakening enforcement.¹⁰⁵ By 2002, Iraq's illegal oil revenues were estimated at \$6.6 billion.¹⁰⁶

It became apparent that the embargo was easily evaded by the regime, which was its intended target, and that negative impacts were being disproportionately borne by Iraqi civilians. International pressure mounted to relax the embargo, with some governments arguing that it was exacerbating civilian suffering and no longer served its intended purpose. These arguments played out in increasingly contentious debates at the United Nations, where governments struggled to align on the best path forward. In the absence of agreement, several countries began to pursue unilateral humanitarian exemptions or trade arrangements of their own with Iraq. This led to an even more significant drop in enforcement, further diminishing the impact of the sanctions. The United States maintained support for a strict embargo, but moderated its position to facilitate restructuring of the restrictions to better enable the flow of civilian and humanitarian goods.¹⁰⁷

WMDs and the Second Gulf War

This situation of leaky enforcement and ongoing humanitarian impacts continued throughout the late 1990s and early 2000s until the Second Gulf War began in 2003. Throughout this period, the UN had issued dozens of resolutions to support its goal of ensuring the dismantlement of Iraq's WMD capabilities, including the establishment of an extensive international inspection regime.¹⁰⁸ While Iraq made some limited concessions during this period, the inability to continue inspections and the resistance from the Iraqi regime heightened concerns over the status of Iraq's WMD programs.¹⁰⁹ By 1998, Hussein had ejected UN weapons inspectors from Iraq. President Bill Clinton authorized Operation Desert Fox shortly after, a joint U.S.-UK military strike on Iraqi military facilities intended to degrade Iraq's WMD capabilities.¹¹⁰ In 2003, President George W. Bush decided, controversially, to use military action to address the perceived WMD threat, leading to the end of the Hussein regime and the start of a prolonged U.S. military presence in the country.

Overall, the Iraq case showed that comprehensive embargoes can impose substantial economic pressure, but they are extraordinarily difficult to sustain over time. The bluntness of the embargo created strong incentives for corruption and evasion, while the increasing humanitarian consequences quickly came

to dominate the political narrative surrounding Iraq, eroding international support. Equally important, the embargo failed to compel Iraq to withdraw from Kuwait in 1990 and continued economic pressure did not induce Hussein to cooperate with UN weapons inspectors. For both policy goals, Kuwaiti sovereignty and WMD dismantlement, military force eventually was seen as necessary after economic pressure failed to bring about the desired policy change.

These lessons strongly shaped the evolution of economic pressure policy in future cases. Policymakers became more reluctant to rely on sweeping embargoes and instead increasingly relied on calibrated pressure, built around gradual steps up an “escalation ladder.” This approach sought to preserve coercive leverage while limiting humanitarian fallout and maintaining political support in the international community. Policymakers also emphasized signaling and conditionality with economic pressure, designed to influence behavior of their targets. Subsequent instances of major sanctions attempted to follow these lessons, such as the careful sequencing and diplomatic work of the Iran sanctions campaign (discussed in Chapter 2.)

Lessons Learned from Legacy Embargo Cases

The legacy embargo cases involved ambitious objectives, including pushing the target countries to give up nuclear capabilities, renounce terrorism, or pursue a wholesale change in governance. Perhaps the most surprising finding is that sometimes these goals were achieved. But the contribution of economic pressure to achieving a high-ambition goal was never straightforward, and there are no cases in which economic pressure alone deserves the credit. To the extent that economic pressure supported a foreign

policy success, it was through a combination of flexible but clear goals, linking relief with changes in behavior of the target government, international legitimacy of the economic pressure campaign, and strong support from domestic constituencies in the United States and the target country.

Clear and flexible goals were critical, especially as the U.S. foreign policy goals were ambitious. In Libya, a U.S. focus on the narrow, yet still ambitious, goals of renouncing terrorism and WMDs created space for a negotiated outcome, even if the show of force in Iraq was ultimately the decisive factor. U.S. goals in South Africa reflected a balancing act, engaging with the apartheid government while simultaneously pushing, and pressuring it via sanctions, to end apartheid. In both cases, economic pressure was clearly linked to specific behaviors, creating the conditions for the pressure to be genuinely coercive rather than punitive, as relief was explicitly part of the negotiations.

On the other hand, the U.S. embargo on Cuba is locked into failure because U.S. policy has not adapted to facts on the ground, not least of which is the prolonged failure of the embargo to force a change in regime. The UN embargo on Iraq began as a forceful and arguably necessary response to Iraq’s blatant violation of international law but was not adapted once the immediate military crisis was resolved. Instead, it was extended for over a decade as part of an international effort to force Hussein to dismantle WMD programs, even as it became clear that the burden of the embargo was falling predominantly on Iraqi civilians. Both the Cuba and the Iraq cases reflect the tendency of economic pressure to become entrenched, as relief is politically difficult and potentially counterproductive from a strategic perspective when the underlying foreign policy concern

Overall Effectiveness of Legacy Embargo Cases

	Cuba	South Africa	Libya	Iraq
			WMD	Terrorism
Overall Foreign Policy Success Rating	✘	✔	✔	✔
	Failure	Success	Success	Success
Criteria of Economic Pressure				
Strategic Context				
Clear articulation of realistic goals	●	●	●	●
Backed by military force	●	●	●	●
Operational Construction				
Effective chokepoint	●	●	●	●
Reversibility	●	●	●	●
Impact on political incentives	●	●	●	●
Allied alignment	●	●	●	●
Nonallied participation	●	●	●	●
Implementation	●	●	●	●
Durability				
International legitimacy	●	●	●	●
Sustainability for U.S. economy	●	●	●	●
Systemic effects	●	●	●	●

remains unresolved. In such cases, sanctions may result in either a stalemate, as with Cuba, or escalation to military action, as with Iraq.

International legitimacy of an embargo was a highly salient factor related to economic pressure's success. Both the Libya and South Africa cases involved UN sanctions, as well as broad international condemnation of the targeted behaviors. Importantly, the role of the international community can be influential even if the economic effects of multilateral sanctions are underwhelming. The UN sanctions on Libya and South

The contribution of economic pressure to achieving a high-ambition goal was never straightforward, and there are no cases in which economic pressure alone deserves the credit.

Africa, with substantial carve-outs and limitations, did not amount to full embargoes in either case. But the application of UN sanctions on top of U.S. unilateral sanctions gave diplomatic and political weight to the economic pressure campaign regardless, contributing to the target's sense of international isolation. The U.S. embargo on Cuba never enjoyed such international legitimacy. The UN embargo on Iraq began with strong legitimacy, but this quickly eroded as humanitarian conditions worsened and defections from the embargo became widespread. Both the Cuba and the Iraq cases highlight the risk of erosion of international support due to humanitarian concerns, even if the initial goal of the economic pressure campaign enjoyed support, as it did in Iraq.

Domestic constituencies were critical, both in the United States and in the target country. There was popular support in the United States for the economic pressure on Cuba, Libya, and South Africa. The families of the victims of Qaddafi's terrorist

attacks were an emotionally resonant and influential constituency pushing the United States and other countries to punish Qaddafi. Americans opposed apartheid on moral grounds. These cases illustrate that once a foreign policy issue grabs the attention of the American public, they can become an important voice for ramping up economic pressure. The Cuba case demonstrates that domestic constituencies also can limit options, as the Cuban-American community's opposition to lifting the embargo is highly influential. In all cases, the strong domestic support for economic pressure was likely enabled by the fact that the embargoes imposed very few costs on the U.S. economy, so opposition on commercial grounds was less pertinent.

Domestic constituencies in the target country also matter. This is seen most clearly in South Africa, where domestic anti-apartheid forces created the internal political conditions for change. External support, including economic pressure, supported an already ongoing political process within South Africa. In Libya, internal threats to Qaddafi's regime altered his assessment of the benefits of re-engaging internationally.

The use of military force, while present in three of the four legacy embargo cases, played a more complicated role. Force was used early in Libya, including the U.S. military strikes that nearly killed Qaddafi during the Reagan administration, and the demonstrated threat of force in Iraq was important in Qaddafi's final calculus. On the other hand, the Bay of Pigs invasion and prospect of U.S. assassination attempts hardened Castro's opposition to the United States and may have been counterproductive. In Iraq, sanctions escalated to military force twice, highlighting that even the most forceful embargo could not sway a determined dictator. Arguably the threat of force did not either, so perhaps the more accurate reading of the Iraq case is that it was a foreign policy failure, rather than that of sanctions alone. This range of outcomes from the use of force complicates efforts to draw a clear lesson applicable for future cases.

Chapter 2: Modern Sanctions Cases

THE HUMANITARIAN IMPLICATIONS of the embargo on Iraq prompted a new era of sanctions, where blunt embargoes would be deprioritized in favor of more targeted sanctions that concentrated economic pressure on specific actors responsible for threatening U.S. interests or facilitating key economic activity for a targeted country. The terrorist attacks of September 11, 2001, also had a heavy influence on modern sanctions programs, as the United States built up a formidable financial intelligence, sanctions, and law enforcement infrastructure to deprive terrorists and other nonstate actors of access to global financial systems.¹¹¹ The post 9/11 sanctions environment led to the development of innovative sanctions tools and deep institutional capacity that would then be turned toward major state conflicts as well.

This section focuses on the major modern sanctions cases of the DPRK and Iran, both of which were sanctioned for their nuclear weapons programs; Russia, which was sanctioned for its aggression toward Ukraine; and Venezuela, which was sanctioned to accelerate a democratic transition. While elements of success or failure can be identified across all four cases, the outcomes of all remain highly uncertain as the foreign policy challenges presented by each are ongoing and dynamic.

Three cases (Iran, Russia, and Venezuela) were heavily influenced by the target’s role in global energy markets, as these countries are major energy producers and suppliers. Denying these targets the ability to produce, transport, and earn revenue from their energy resources therefore has made up a large component of the U.S. sanctions approach. At the same time, energy sanctions are hard to execute. Energy markets are global, and many energy commodities are fungible, making it difficult to fully isolate major energy producers unless all major purchasers are aligned with the sanctions efforts. Sanctioning countries also have to worry about roiling global energy markets and the potential for rising energy prices in their own economies if too much energy is taken offline without the identification of alternative supply.

In the energy cases, as well as with the DPRK case, the role of the U.S. dollar has been critical. While energy sanctions must contend with abundant and diverse supply, financial sanctions leverage the unique role that the U.S. dollar plays in global financial infrastructure. The dollar functions not only as the primary reserve currency held by central banks around the world, but also as the most widely used currency for international trade settlement and cross-border financial transactions. This gives the United States unparalleled economic leverage, which the country has employed assertively across all major sanctions cases of the past 25 years.

As seen in these four cases, energy or other sectoral sanctions often are imposed in tandem with financial sanctions, with the different types of tools reinforcing each other’s impact. In practice, this can lead to an accumulation of sanctions that result in a de facto embargo, particularly once major banks in a target economy are cut off from global finance. Financial sanctions often lead to spillover effects on trade, as trade is difficult to conduct without a bank willing to execute the underlying financial transactions to enable cross-border commerce. These dynamics mean that the same humanitarian issues that arose from the legacy embargo cases are present in many modern-day sanctions programs. The protracted nature of the modern cases also raises fundamental questions about how much economic force must be, and can be, brought to bear in today’s geopolitical environment, where the United States is only one of the major economic powers, and the PRC often plays a sanctions spoiler role.

North Korea (2006–Present)

The DPRK is a case of a heavily sanctioned state that has proven highly resistant to U.S. economic pressure. For decades, the United States and the international community have sought to deter and, when deterrence failed, reverse North Korea’s nuclear program through economic pressure. President Barack Obama, when transitioning power to the newly elected President Donald Trump in 2017, identified the North Korean nuclear threat as the foremost threat to U.S. national security.¹¹² Despite these efforts, the rogue state has developed its nuclear capabilities, along with



associated delivery systems such as intercontinental ballistic missiles, to the point that it can strike the U.S. homeland.¹¹³ The regime today has no intention of denuclearization, as it views its nuclear weapons program as a guarantor of its security rather than a risk to it.¹¹⁴

Constraining a Nuclear State

Since the Korean War, the United States has maintained some level of economic sanctions against the DPRK.¹¹⁵ U.S. concerns about the DPRK's nuclear intentions are long-standing, dating back to the 1990s. While the DPRK joined the Nuclear Non-Proliferation Treaty (NPT) in 1985, it has resisted efforts of the international community to inspect its nuclear programs for nearly as long. U.S. concerns elevated throughout the 1990s and 2000s, in parallel with developments in the DPRK's capabilities, including the initiation of long-range missile testing in 1998, its assertion that it possessed a nuclear weapon in 2003, and its first nuclear weapon test in 2006.¹¹⁶ In response, starting in 2006, U.S. and multilateral economic pressure escalated.¹¹⁷ Importantly, UN sanctions started targeting revenue-generating export sectors of the DPRK (e.g., coal) and requiring certain asset freezes, clearly moving toward a more coercive approach that extended beyond existing technology transfer restrictions.¹¹⁸ The U.S. and UN proposition to the DPRK has been consistent since that time: Denuclearize and sanctions will be eased.¹¹⁹

U.S. presidents have deployed different tactical approaches to incentivize the DPRK regime to accept this bargain. These included bilateral negotiations by Clinton, the Six-Party Talks under Bush (also including South Korea, Japan, Russia, and the PRC), and “strategic patience” under Obama in which U.S. engagement was contingent upon certain changes in DPRK behavior. The first Trump administration adopted a “maximum pressure” policy involving heavy sanctions but also engaged in leader-level summit diplomacy without preconditions, which were followed by at times confusing unilateral U.S. concessions (e.g., halting of joint military exercises with South Korea and easing of unilateral sanctions pressure).¹²⁰ In tandem, UNSC sanctions escalated consistently throughout this period, covering the large majority of the DPRK's external trade by 2017.¹²¹ In the Biden and second Trump administrations, the DPRK has largely refused to engage diplomatically. The varying approaches of the United States all were answered with the same basic posture: The DPRK refused to take verifiable steps toward denuclearization, while occasionally agreeing to talks.

In addition to sanctions and diplomacy, U.S. presidents have considered the use of military force to preemptively strike the DPRK's nuclear facilities but have ruled it out to date. A strong concern has been about escalation risk, including the possibility of DPRK attacks on South Korea using conventional weapons.¹²² The decisions to abstain from military force are notable given different U.S. decisions in other foreign policy crises occurring

around the same time. The Bush administration, for example, emphasized diplomacy to deal with the DPRK nuclear threat, despite having invaded Iraq due to concerns over WMDs and rhetorically linking the DPRK and Iraq together as part of the “axis of evil.”¹²³ More recently, President Trump threatened “fire and fury” against the DPRK in his first administration and struck Iran's nuclear facilities in his second.¹²⁴ Rather than compelling the DPRK to halt its nuclear progress, however, the use of military force in other contexts may be reinforcing the regime's view that their nuclear capability is the strongest deterrent to a U.S. strike.¹²⁵ As one analyst noted of Pyongyang's views on the Iran strikes, North Korea “has nuclear weapons and Iran does not, which is why Iran gets bombed and North Korea does not.”¹²⁶ Rather than preemptive strikes, U.S. military deterrence has focused instead on signaling U.S. preparedness to strike North Korea in response to a nuclear attack.¹²⁷

Economic Pressure on a Stubborn Target

The prolonged sanctions campaign against North Korea has some characteristics normally associated with sanctions best practices. Sanctions clearly hurt North Korea economically.¹²⁸ U.S. actions were pursued in tandem with UN sanctions, indicating broad international support for the goal of denuclearization. The sanctions also were reversible, as U.S. negotiators explicitly offered sanctions relief in return for concrete progress toward denuclearization.

The sanctions were also innovative, as the U.S. deployment of new types of sanctions tools in the Banco Delta Asia case demonstrated. The U.S. Treasury Department identified Banco Delta Asia, a small bank in Macau, as a “primary money laundering concern,” leveraging new post-9/11 law enforcement authorities (i.e., Section 311 of the USA Patriot Act).¹²⁹ The designation effectively froze approximately \$25 million in North Korean accounts held in the bank, though more importantly it sent shockwaves through the global financial system. The action against Banco Delta Asia demonstrated for the first time that any financial institution doing business with North Korea risked being cut off from the U.S. financial system. Banks across Asia began closing North Korean accounts and refusing transactions well beyond just that bank, not because they were required to do so in all cases but because they did not want to risk being cut off from the U.S. financial system. The ripple effect of overcompliance had a much greater impact than the listing itself.¹³⁰

Over subsequent years, the UN imposed increasingly strict financial provisions on North Korea, while the United States sanctioned dozens of front companies and individuals facilitating North Korean financial activity. Drawing on the lessons from the Banco Delta Asia experience, it also increasingly focused on secondary sanctions on foreign financial institutions engaged in facilitating illicit North Korean activities.¹³¹ Eventually, North Korea was cut off from the global financial system, a situation

that continues to this day. This isolation has imposed real costs, with the country unable to engage in formal trade channels even for nonillicit goods. Even humanitarian aid organizations have faced significant difficulties transferring funds to North Korea due to banking restrictions.

But the sheer amount of economic force brought to bear was not sufficient to overcome the fact that the DPRK had become undeterrable. The stated U.S. goal (“complete denuclearization”) was diametrically opposed to the North Korean goal of developing a nuclear capability as its primary mechanism to assure regime security. The suffering of the North Korean population under sanctions paled in comparison to the larger goal of regime security. Additionally, as prior sanctions researchers have argued, popular discontent has fewer channels to lead to policy change in authoritarian systems, making sanctions campaigns against autocrats generally less successful.¹³²

Enforcement of sanctions was also a challenge, as the DPRK developed extensive evasion networks and techniques.¹³³ Part of the enforcement difficulty was a generalized challenge of UN sanctions, which did not come with a corresponding enforcement mechanism and often relied on national implementation and enforcement, the quality of which varied widely.¹³⁴ But a large part of the enforcement challenge was that the DPRK simply got quite good at evasion, using a wide range of techniques including ship-to-ship transfers to evade trade sanctions; leveraging its embassies and nationals overseas to run illicit procurement networks; and conducting illicit trade in counterfeit items, illegal drugs, and wildlife.¹³⁵ North Korea also relied heavily on bulk cash smuggling, particularly of U.S. dollars and Chinese renminbi (RMB), providing the regime with crucial hard currency.

North Korea has been a pioneer in persistent, large-scale, cyberattacks, including cryptocurrency theft, to generate hundreds of millions of dollars annually.¹³⁶ In the largest such attack, in 2025 the DPRK-associated Lazarus Group stole \$1.5 billion in digital assets from Bybit, a major cryptocurrency exchange.¹³⁷ As the U.S. and international pressure campaign has continued to shut off its access to financial channels, this growing facility with cyber theft and digital assets has allowed North Korea to gain access to significant funds outside of traditional financial channels and in environments where enforcement is particularly challenging.¹³⁸

Sanctions Spoilers

Support from the PRC and Russia also enables the DPRK’s resistance to sanctions pressure. China is the DPRK’s largest trading partner. While the PRC shares U.S. concerns about DPRK’s

nuclear progress, it also worries that destabilization of the country could lead to a crisis spilling over its shared border with North Korea.¹³⁹ The lax PRC enforcement of sanctions against the DPRK reflects these competing objectives, and continued Chinese support offers an economic lifeline to North Korea. North Korean entities have made extensive use of Chinese front companies and joint ventures registered in China to open bank accounts and conduct trade-related payments by obscuring ultimate ownership. Smaller Chinese banks that are largely insulated from the international financial system also have helped provide correspondent banking access and enable transactions, while traders and businesses near the border have helped facilitate cash transfers and cross-border money laundering schemes.¹⁴⁰

More recently, Russia also has played an increasingly important role in providing North Korea with access to banking services and financial channels, particularly as the DPRK has offered support for the Russian invasion of Ukraine.¹⁴¹ In 2022, the PRC and Russia vetoed additional UNSC sanctions, putting

an end to the years-long sanctions campaign of the international community.¹⁴² In 2024, Russia vetoed the renewal of the UN sanctions monitoring committee, which was tasked with ensuring compliance with UN sanctions against the DPRK.¹⁴³ Both the PRC and Russia moved from a posture of weak enforcement of

sanctions with which they notionally agreed to one of active obstruction of international sanctions efforts.¹⁴⁴ Collectively, these efforts have allowed North Korea to continue to have access to funds that support ongoing illicit activities.

Sanctions Stalemate

The failure of sanctions to pressure the DPRK to denuclearize was a combination of factors related to external support, weak enforcement, and high intent and capability of the regime to resist sanctions. On the one hand, North Korea shows that it is possible to achieve near-total financial isolation through sanctions, particularly when there is sustained international legitimacy. However, it also demonstrates the limits of what financial sanctions can achieve. The combination of limited external financial support, particularly from key countries like China, along with efforts to exploit illicit financial channels and funding schemes can provide a determined adversary enough of a lifeline so that it does not feel compelled to change course. Additionally, once a target has become highly sanctioned and cut off from legitimate financial channels, the threat of future sanctions becomes less impactful, particularly if they have already found ways to circumvent sanctions or otherwise mitigate the impact of economic pressure.

A LARGE PART OF THE ENFORCEMENT
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This history also raises an important question of whether U.S. policy should maintain its goal of achieving complete denuclearization, which has been a worthy if elusive goal. Some experts have argued for a prioritization of managing risks associated with a nuclear-armed North Korea, recognizing the changed facts on the ground and facing the unfortunate reality that the stakes of conflict have now risen.¹⁴⁵ While recalibrating foreign policy goals to reflect new geopolitical realities will be important, any shift in policy should also reflect the hard lessons learned from the DPRK sanctions experience and set realistically low expectations for how effective economic pressure can be against a target that has developed a strong capacity to resist it.

Iran (1979–Present)

U.S. and multilateral sanctions against Iran successfully brought Iran to the table to negotiate limits on its nuclear programs in the early 2010s. Extensive diplomatic efforts enabled the sanctions to execute tight control over Iran’s critical energy sales, including the establishment of a structured process to reduce energy purchases by major buyers that was able to secure support from nontraditional partners such as the PRC. The JCPOA was signed in 2015, offering Iran relief from some sanctions in return for verifiable steps toward limiting its nuclear program. The United States, however, withdrew from the JCPOA in 2018 and has since escalated to military strikes to address its continuing concerns with Iran’s nuclear weapons programs, including broad strikes across the country that killed Iranian Supreme Leader Ali Khamenei in 2026.

Iran		Pre-JCPOA	Post-JCPOA
Overall Foreign Policy Success Rating		✓	✗
		Success	Failure
Criteria of Economic Pressure			
Strategic Context			
Clear articulation of realistic goals	●	●	●
Backed by military force	●	●	●
Operational Construction			
Effective chokepoint	●	●	●
Reversibility	●	●	●
Impact on political incentives	●	●	●
Allied alignment	●	●	●
Nonallied participation	●	●	●
Implementation	●	●	●
Durability			
International legitimacy	●	●	●
Sustainability for U.S. economy	●	●	●
Systemic effects	●	●	●

Pre-JCPOA Sanctions Escalation

U.S. sanctions against Iran date back to the 1979 Iranian Revolution, which brought into power an Islamist regime staunchly opposed to the United States. Further U.S. sanctions were imposed on Iran throughout the 1980s and 1990s to address Iran’s destabilizing role in the Middle East region and its sponsorship of armed proxy groups.¹⁴⁶ Yet, it was in the 2000s and 2010s that economic pressure escalated, with a focus on denying Iran revenue from its energy sector as a means to pressure it to halt its nuclear weapons progress. Hydrocarbons accounted for roughly 70–80 percent of the country’s export earnings and around half or more of government revenue.¹⁴⁷ Energy revenues directly underwrote not only Iran’s macroeconomic health, but also its defense spending, regional activities, and nuclear program. Meanwhile, Iran’s reliance on international buyers, shipping, and insurance created structural vulnerabilities, which were targeted throughout the economic pressure campaign.

Throughout the 2000s, there was a consistent pattern of Iran failing to disclose its nuclear facilities or allow inspections and sanctions being imposed as a result of mounting international concern. In 2006, UN sanctions targeted officials and state-linked entities supporting the nuclear program. In 2010, these sanctions escalated, and the UN highlighted the role of Iran’s financial institutions in supporting prohibited activities while also making an explicit connection between revenue from Iran’s energy sector and its nuclear program.¹⁴⁸ The UN focus on these energy and financial sectors turned out to be crucial, helping to shape the United States’ sanctions approach while giving it a powerful boost of international legitimacy moving forward.

In parallel with the UN efforts, the United States imposed an escalating series of unilateral sanctions beginning in 2010, targeting Iran’s energy revenues while also trying to avoid disrupting global energy markets. Though the U.S. sanctions became increasingly complex through overlapping executive orders and congressional laws, key developments included sanctions on support for Iran’s upstream oil and gas development, forced reductions in purchases of Iranian oil, sanctions targeting shipping and energy transport logistics, and complementary financial sanctions.

Upstream Investment Restrictions

The Comprehensive Iran Sanctions, Accountability, and Divestment Act (CISADA) in 2010 mandated secondary sanctions on foreign firms investing in Iran’s energy sector.¹⁴⁹ This changed the risk calculus for foreign energy firms in Iran and gave the U.S. government immense leverage to press for divestments. Most major Western energy companies quickly withdrew from Iran, including European majors, depriving the country not only of key investments, but also Western know-how and technology.¹⁵⁰ The upstream approach was explicitly long-term: Iran could continue exporting oil, but its ability to maintain production and develop

new fields would erode over time as foreign companies withdrew capital, technology, and support.

Forced Reductions of Energy Purchases

A 2012 law mirrored the CISADA approach, extending the threat of secondary sanctions to foreign financial institutions that engaged with certain Iranian financial institutions, including the Central Bank of Iran, which served as the main bank for energy transactions.¹⁵¹ However, the threat of secondary sanctions was paired with a “significant reduction” exception that allowed countries to avoid sanctions if they reduced their oil imports from Iran over time. This allowed policymakers to turn energy sanctions into a managed process rather than requiring countries to cut off purchases immediately. U.S. officials devoted significant time and political capital to intensive bilateral engagement with major importing countries—including China, India, Turkey, Japan, and South Korea—to secure phased reductions in purchases, document reductions, and identify alternative supplies. U.S. officials also worked with Saudi Arabia and other major producers to ensure spare capacity was available as Iranian exports were nearly halved over the course of a few years.¹⁵²

Shipping, Insurance, and Transport Restrictions

Sanctions targeting shipping and related services also were important in constraining Iran’s energy exports. Iran remained heavily dependent on foreign-controlled maritime services—tankers, insurance, reinsurance, port access, and classification—to physically move oil. U.S. and allied measures increasingly targeted this ecosystem, leveraging European firms’ dominance in the targeted sectors.¹⁵³ These measures greatly increased the cost, complexity, and risk of transporting Iranian oil. Iran was forced to rely on a smaller, less efficient fleet, engage in opaque shipping practices, and offer discounts to compensate buyers willing to risk sanctions. Essentially, the shipping sanctions acted as a force multiplier on top of the other energy sanctions measures: They limited Iran’s ability to reroute exports, further reduced volumes beyond formal import cuts, and tightened enforcement.

Leveraging Financial Sanctions to Amplify Energy Measures

The layering of comprehensive financial measures on top of energy sector sanctions led to overwhelming economic pressure. CISADA’s secondary sanctions allowed the United States to threaten to sanction foreign financial institutions engaged in significant transactions with designated Iranian banks as well as Iranian banks linked to the Iranian Revolutionary Guard Corps. This included an option to cut foreign financial firms off from using U.S. institutions for dollar clearing, a potentially devastating impact given that 80 percent of cross-border trade finance relied on such dollar clearing.¹⁵⁴ The United States and the EU

also disconnected Iran’s access to the Society for Worldwide Interbank Financial Telecommunication (SWIFT) messaging system, which handles the vast majority of international payment instructions between banks, making it significantly more difficult for Iranian financial institutions to engage in cross-border transactions.¹⁵⁵ In subsequent years leading up to the JCPOA, the United States steadily increased the scope of financial sanctions until eventually financial institutions could be sanctioned for engaging in virtually any activity with Iran outside narrow humanitarian areas.¹⁵⁶

Importance of Credible Enforcement

The United States rigorously enforced the sanctions on Iran. Between 2009 and 2015, the U.S. government imposed billions of dollars in fines on several major European and Asian banks for processing transactions that violated U.S. sanctions. The biggest of these was imposed on BNP Paribas, which paid \$8.9 billion in 2014 for sanctions violations, including transactions involving Iran—an action the bank said it “deeply regretted” following the announcement of the fine.¹⁵⁷ These penalties were deliberately made severe enough so that they would send a message to the entire financial sector and fundamentally change risk calculations across the global banking industry. Compliance officers at banks worldwide began treating any exposure to Iran and other heavily sanctioned countries as problematic, leading to systematic withdrawal from the Iranian market, even for legal trade.¹⁵⁸ (The U.S. export controls on Huawei and ZTE, major Chinese telecommunications companies, also were based on allegations that these companies had violated sanctions on Iran, as discussed in Chapter 3.)

Overcompliance and Humanitarian Impacts

The escalating sanctions on Iran created humanitarian concerns.¹⁵⁹ As financial institutions withdrew, pharmaceutical and food companies, as well as aid organizations, struggled to access financial channels to facilitate shipments of food, medicine, and medical devices to Iran, leading to widespread shortages of key items, rising health issues, and greater poverty.¹⁶⁰ The U.S. and international sanctions explicitly provided exceptions for humanitarian purposes, but as a practical matter the reputational and compliance risks meant that most banks were highly adverse to any transactions with an Iranian entity.¹⁶¹ The Iranian government pushed for the establishment of a “humanitarian channel” to enable certain financial institutions to facilitate humanitarian trade using its frozen assets from oil sales.¹⁶² The sanctions nonetheless eroded standards of living throughout Iran, as Iranian businesses eventually were unable to conduct even routine international transactions and everyday people in Iran experienced direct economic pain. As this pain continued, it led to a powerful constituency—particularly in the Iranian middle class—pushing for negotiations to secure sanctions

relief.¹⁶³ Unlike in North Korea, where the regime could largely insulate itself from public pressure, Iran’s relatively more open society meant that these economic grievances had political impact.

The Joint Comprehensive Plan of Action

By 2013, economic pressure had created political space for negotiations. Hassan Rouhani, who campaigned on a platform of economic recovery and sanctions relief, was elected president. His administration signaled willingness to negotiate seriously over the nuclear program, ultimately leading to the JCPOA in 2015, which exchanged significant sanctions relief for verifiable limits on Iran’s nuclear activities along with enforcement and inspection mechanisms.¹⁶⁴

However, despite many sanctions being waived, Iran was still perceived as a highly risky jurisdiction, limiting the practical effect of the sanctions relief.¹⁶⁵ International financial institutions and major energy companies still largely avoided Iran, wary of reengaging in a country where they or their peers had faced significant fines and that remained a jurisdiction of concern regarding money laundering and other illicit activity.¹⁶⁶ At the same time, the sanctions relief under the JCPOA was implemented largely through executive branch waivers of congressionally mandated laws alongside some removal of executive orders, meaning many sanctions authorities technically remained in place. The entire deal was set up so that sanctions would be reimposed if Iran did not live up to its commitments. While sensible from a negotiating perspective, the looming prospect of future sanctions undercut the certainty required for major companies to make long-term investments. As a result, Iran’s economic recovery was slower and more limited than it had hoped going into the nuclear deal.

Regardless of these issues, the agreement proved to be relatively short-lived, with the first Trump administration withdrawing the United States in 2018, assessing that the JCPOA was insufficient to constrain Iran’s nuclear ambitions and broader nefarious activities in the region. Instead, the Trump administration embarked on a “maximum pressure” campaign that reimposed all previous sanctions and added new ones.¹⁶⁷ The administration ratcheted up pressure even further in its second term by authorizing military strikes on three Iranian nuclear facilities in June 2025. Notably, the strikes took place amid negotiations between the United States and Iran on a new deal, with the strikes in response to Iran rejecting a U.S. proposal to cease all nuclear enrichment inside the country.¹⁶⁸ In 2026, the United States escalated its military actions, engaging in a sustained military operation across Iran that succeeded in killing several top Iranian leaders. The ultimate objective of this operation remains unclear, with varying rationales provided, including Iran’s nuclear program, the need for regime change, and support for Iranian democracy.

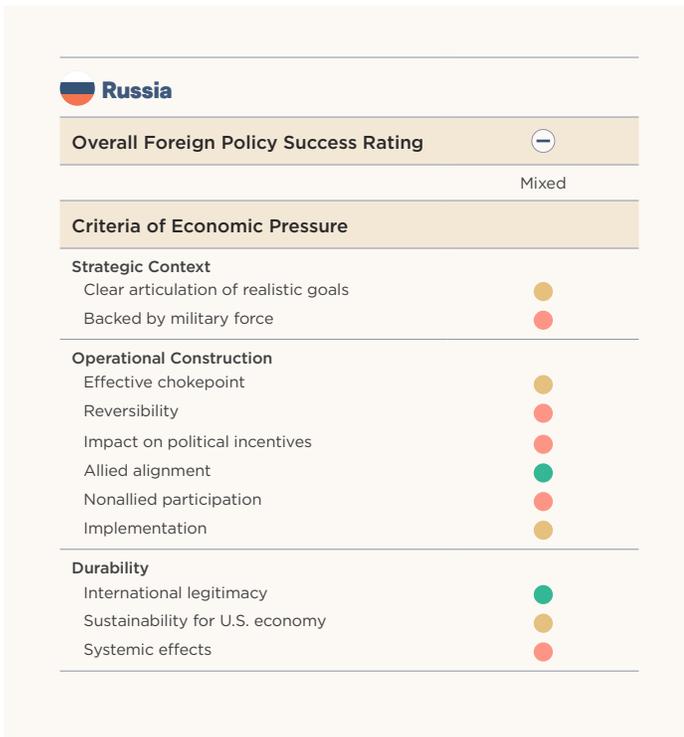
Lessons from the Iran Case

The phases of the Iran sanctions campaign highlight the benefits and risks of different coercive strategies. Leading up to the JCPOA, sanctions were used primarily to create leverage for diplomacy, with the implicit understanding that the United States was willing to use force if its diplomatic approach to Iran did not work. Sanctions officials involved in the JCPOA negotiations have noted that having the credible threat of military strikes on the table was essential in giving them leverage.¹⁶⁹ The emphasis on extensive diplomacy, backed by the threat of secondary sanctions, enabled the formation of a coalition involving both traditional U.S. allies such as Europe and nontraditional partners such as the PRC, all of which were concerned about Iran’s nuclear intentions. The overall economic pressure created a constituency for negotiations in Iran’s middle class, though it also raised serious concerns about civilian impacts. Throughout, the economic pressure had very clear, narrow goals: It focused on preventing Iran from developing a nuclear weapon rather than broader regime change or curbs on Iran’s destabilizing activities in the region. When measured against this goal, the economic pressure had success in leading to a negotiated outcome and pathway toward verifiable steps to limit Iran’s nuclear programs.

The United States shifted to a more hostile posture under both Trump administrations, which assessed that the JCPOA did not go far enough in constraining Iran’s nuclear programs or other malign activities. As the U.S. posture shifted and maximum pressure sanctions expanded, the multilateral coalition fractured, and Iran’s oil exports—and therefore oil revenues—rebounded significantly to more than 2 million barrels per day as of the end of 2025.¹⁷⁰ The United States has also acted without broad allied support in its military strikes in 2025 and 2026. The strikes have imposed significant physical damage on Iran’s nuclear and military infrastructure but also directly scuttled ongoing negotiations, and it is not yet clear whether they will ultimately provide the United States with additional leverage to achieve its aims. In the near term, the military operations and Iranian retaliation in the Strait of Hormuz have disrupted critical energy transportation routes, leading to an easing of U.S. sanctions on Iran as the United States seeks to manage skyrocketing energy prices.

Russia (2014–Present)

Russia’s territorial aggression toward Ukraine has led to U.S. and allied sanctions since 2014, when Russia illegally annexed Crimea. For U.S. and EU policymakers, allowing a major power to alter borders by force presented a serious challenge to the rules-based international order. These concerns intensified dramatically following Russia’s full-scale invasion of Ukraine in 2022, which presented a direct challenge to European security. The allies developed a far more sweeping response centered on financial, energy, and technology sanctions alongside military support to Ukraine.¹⁷¹ Yet, the continued reliance of Europe on



Russian energy exports, along with the Russian economy’s scale and connections with the global economy, has made sustaining an effective economic pressure campaign difficult.

Annexation of Crimea

Prior to Russia’s annexation of Crimea in 2014, Russia was the world’s largest oil producer and a major producer and exporter of natural gas. More than 70 percent of its crude exports and almost 90 percent of its natural gas exports went to Europe.¹⁷² These factors made Russia a fundamentally different case than Iran: Cutting off Russia’s exports would impact global prices significantly more and countries in eastern Europe and Japan that relied on oil and gas imports from Russia could not easily transition to new sources. As such, energy sanctions following Russia’s annexation of Crimea were shaped less by pressure maximization than by what the sanctioning coalition could sustain without triggering painful market disruptions.

Sanctions on Future Energy Production

U.S. and EU sanctions efforts following the Crimea annexation were aimed at degrading Russia’s future energy capacity in an effort to strike a balance between building economic pressure on Russia while keeping energy markets stable. U.S. sanctions focused on the provision of goods, services, and technology for Russia’s deepwater, Arctic offshore, and shale projects.¹⁷³ Importantly, the sanctions covered future Russian energy activities that were central to its long-term production strategy, intended to offset declines from its aging conventional onshore

fields, but where Russia was not yet producing oil and gas. This deliberate design choice incorporated lessons drawn from Iraq and refined in Iran, and the measures imposed real constraints. Western firms suspended activities, depriving Russian companies of advanced drilling techniques, project management expertise, and specialized equipment for these highly technical, unconventional energy projects.¹⁷⁴

Energy sanctions were shaped less by pressure maximization than by what the sanctioning coalition could sustain without triggering painful market disruptions.

At the same time, the limits of the approach were clear. Most significantly, the United States and the EU avoided restrictions on Russia’s gas production over concerns that any such restrictions could have unacceptable effects on the EU’s ability to import gas from Russia, on which it was highly reliant. This constraint—along with continued reliance of certain EU member states on pipeline imports of oil—became a defining feature of the program. Additionally, the sanctions were designed to be long term, which meant that they had very limited impact on Russia’s short-term capacity to generate oil and gas revenues, while also giving Russia time to accelerate efforts to reduce its reliance on Western energy technology and services. While full substitution proved impossible, particularly for complex offshore and shale projects, Russian firms invested in domestic alternatives that, though often inferior and more costly, still allowed the sector to function.¹⁷⁵

Extending Measures to the Financial Sector

Financial sanctions took a similar path, as sanctions officials sought to degrade Russia’s long-term financial health while avoiding near-term financial market turbulence, an acute concern following the 2008–9 global financial crisis. The United States and the EU imposed targeted financial sanctions on the Russian banking, energy, and defense sectors, with narrow prohibitions on dealing in new debt over a certain days’ duration or new equity of the targeted companies and financial institutions.¹⁷⁶ By prohibiting access to Western capital markets, the goal was to force the Russian state to divert resources to prop itself up, thereby degrading Russia’s financial picture over time.¹⁷⁷ Even these narrow measures had carve-outs. The financial restrictions on the energy sector omitted the limits on new equity, again reflecting concerns over energy import access. Similarly, Russia’s largest bank, Sberbank, was initially excluded from U.S. debt and equity restrictions due to concerns about potential spillover effects for Russian household savings, though it was later targeted.¹⁷⁸

Overall, these financial measures succeeded in forcing the Russian government to intercede for the entities targeted, providing liquidity support and acting as a financial backstop

for the Russian economy. Though this intervention mitigated the short-term impacts, it also diverted resources away from more productive investment and deepened long-term structural weaknesses in Russia, essentially “raising costs” for Russia as the measures had been intended to do.

On a more worrying note, the sanctions also motivated Russia to sanctions-proof its economy by reducing its exposure to Western capital markets and increasing reliance on domestic financing. It expanded the role of Russian state-owned banks, built up significant foreign reserves, and promoted import substitution to offset the reduced foreign investment.¹⁷⁹ Russia also began to develop alternative settlement and financial systems outside of the U.S. dollar-led system. Though these measures introduced economic inefficiency, they allowed Russia to largely mitigate the impact of the sanctions and increase its resiliency to future measures—an issue that became key following its 2022 invasion of Ukraine.

Full Invasion of Ukraine

Following Russia’s full-scale invasion of Ukraine in February 2022, the United States and the EU were much more willing politically to impose harsh sanctions on Russia. However, the dynamic related to Europe’s energy dependencies continued to restrain the scale and ambition of new sanctions measures. Financial sanctions and export controls (discussed in the technology denial chapter) had less impact than anticipated, leading to the overall perception of a faltering economic pressure campaign. Direct military engagement by the United States was ruled out early on, due to concerns over escalation, though the United States and allies have provided significant lethal aid to Ukraine, in an important shift from the post-2014 policy.

Pursuing Financial Isolation

Following the 2022 invasion, the United States, the EU, and other G7 allies announced an unprecedented package of financial sanctions, including freezing approximately \$300 billion in Russian central bank reserves held in Western jurisdictions.¹⁸⁰ Though the United States and its allies took similar measures during World War II, the financial attack on Russia was unprecedented in the postwar financial order, both in scale and in the explicit use as a coercive sanctions tool against a systemically important economy. The sudden reserve freeze also represented a major breach of post-Cold War norms governing central bank assets, which were generally considered inviolable, protected by sovereign immunity, and able to be accessed to provide liquidity during crises.¹⁸¹ By freezing them, the United States and its allies denied Russia access to the very resources it had accumulated precisely to cushion against external shocks. Adding to this, the United States and the EU sanctioned major Russian banks in the days following the invasion, including disconnecting them from SWIFT and placing them on the Specially Designated Nationals (SDN) list.¹⁸²

The initial impact of these measures was severe, with the ruble losing roughly half its value in a matter of days and forcing the Russian central bank to raise interest rates to 20 percent to support the ruble and prevent capital flight. The country also imposed strict capital controls, forcing exporters to convert foreign currency earnings to rubles. As a result of these measures and adept management by Russian central bank officials, the ruble quickly recovered most of its initial losses, and overall the Russian economy contracted much less in 2022 than what had been predicted, with growth resuming in 2023.¹⁸³ Importantly, given Russia’s ongoing ability to sell oil and gas, it was still able to earn substantial amounts of foreign exchange from these sales even without access to its foreign reserves.

Oil Price Cap

The United States immediately banned imports of Russian oil after the invasion, a mostly symbolic step given how little it imported from Russia.¹⁸⁴ It took longer to craft a more forceful approach to denying Russia revenues from its energy exports. The EU adopted a phased embargo of seaborne crude and refined products.¹⁸⁵ The allies continued to carve out natural gas imports and pipeline oil from sanctions given the ongoing reliance on Russian exports from some member states. The urgent need to reduce Russia’s energy revenue within these constraints led to a novel mechanism: the G7 oil price cap, imposed in late 2022. Leveraging Western dominance in shipping, insurance, and maritime services, the oil price cap was designed to cut off access to these services for any entity that transported oil at prices exceeding the cap.¹⁸⁶ Rather than bluntly cutting off imports, the oil price cap sought to restructure market incentives and drive down the price that Russian oil could demand on global markets.

Initially, the oil price cap imposed real friction. The cap gave importers leverage to negotiate steep discounts, leading Russia’s revenues to fall substantially.¹⁸⁷ However, Russia quickly learned to adapt, employing and expanding evasion tactics that drew directly on methods pioneered by Iran, including deployment of a shadow fleet to transport oil outside the price cap constraints. These ever-evolving evasion methods have posed significant and ongoing compliance challenges both for governments and the private sector. In response, the United States and the EU have pursued an expansive enforcement strategy centered on designating hundreds of ships and other entities linked to Russia’s shadow energy trade, while simultaneously issuing frequent public advisories including red-flag guidance aimed at the private sector.¹⁸⁸

These enforcement efforts have raised transaction costs for Russia and increased sanctions risks for entities helping it, while disrupting some segments of the shadow fleet. However, the scale and adaptability of Russia’s response have exposed the limits of the enforcement approach. Russia has exploited weak enforcement capacity in third countries, allowing oil and petroleum

products to continue flowing at volumes sufficient to sustain government revenues. As in the case of Iran, the largest buyer of Russia's oil is China, accounting for 45 percent of purchases in November 2025.¹⁸⁹ Notably, both the Biden administration, at the end of its term, and the second Trump administration sanctioned major Russian oil producers, indicating that the indirect approach of the oil price cap was unable to exert sufficient pressure on Russian oil exports on its own.¹⁹⁰

Allied Sanctions Coalition

The design of the economic pressure campaigns against Russia did not occur in a vacuum. The emphasis on incrementally raising costs and future-capacity constraints reflected not only market considerations but also the need to sustain a durable coalition among partners with uneven exposure to Russia, particularly in the energy sector. Even more so than in Iran, sanctions on Russia were designed to be coalition-based, with the EU working as an equal partner to the United States on the policy and approach. This was partly due to political reasons: Ukraine is part of Europe, and even before Russia's full-scale invasion in 2022, its incursions into eastern Ukraine and takeover of Crimea were viewed as a direct threat to Europe's core security interests. In the post-2014 period through the post-2022 period, the United States and the EU coordinated their efforts and moved in lockstep directionally as a transatlantic sanctioning coalition.

This does not mean that all their efforts were identical. Even early on there were disparities that reflected a more cautious EU approach, including broader grandfathering exceptions allowed by the EU for existing energy projects and, in some cases, continued contractual obligations. This differed from the U.S. approach, which generally allowed only wind-down periods for existing energy contracts. Similarly, the EU allowed certain exceptions for technology and know-how transfer to existing energy projects, while the United States broadly prohibited these activities.¹⁹¹

Over time these disparities grew, as the United States continued to push for additional restrictions on Russia's energy sector while the EU was increasingly constrained by political factors. Under the 2017 Countering America's Adversaries Through Sanctions Act (CAATSA), the U.S. Congress gave the executive branch discretion to impose secondary sanctions on entities supporting Russia's energy export pipelines. The focus was Nordstream 2, a proposed pipeline from Russia to Germany that was set to double the amount of gas Russia had exported to Germany under the original Nordstream pipeline.¹⁹² Germany had long been a proponent of the project, arguing that the country needed more gas as part of its energy transition. The United States and a number of countries in central and eastern Europe, such as Poland, were staunchly opposed to the project, arguing that it would give Russia even greater leverage over European interests given its ability to shut off gas through the pipeline at

any time—a lever it had shown in the past it was willing to use, such as when it shut off all gas transiting through Ukraine to the EU in 2009 over a pricing dispute.¹⁹³ The pipeline would also completely bypass Ukraine, depriving the country of additional transit fees on top of what it got from existing pipelines.

These differing approaches caused significant strain in the transatlantic relationship, with the United States publicly opposing the pipeline but unwilling to take concrete steps to sanction it given Germany's position. This finally changed after Congress made secondary sanctions on new Russian pipelines mandatory, causing the first Trump administration to sanction the operator of Nordstream 2, though these sanctions were then waived in 2021 under the Biden administration. The United States ended the waiver after Russia's invasion of Ukraine in 2022.¹⁹⁴

These tensions within the transatlantic coalition continued following Russia's invasion, despite the heightened political imperative to respond to Russia's aggression. Several EU member states remained highly reliant on Russian pipeline gas and oil, leading to continued carve-outs for Russian gas imports and limiting how quickly the EU could move to reduce pipeline oil imports.¹⁹⁵ In the financial sector, the allies purposefully did not include the Russian bank Gazprombank in their restrictions because of its key role processing gas payments transactions with Europe. When the United States finally placed Gazprombank on the SDN list in November 2024 (almost three years after the war started) it noted that, among other things, it served as a "key conduit for Russia to purchase military materiel for its war effort against Ukraine," highlighting how sanctions constraints can have collateral impacts on other objectives.¹⁹⁶

Hedging Against the Dollar

The impacts of the allied sanctions were mitigated by Russia's active development of alternative financial channels beyond the reach of the U.S. dollar. Beginning as early as the initial sanctions in 2014, Russia developed alternative financial infrastructure to replace the channels controlled by the United States and its allies. These efforts then were expanded and more widely used after the 2022 invasion, once Russia became fully cut off from the formal international financial system.

The first alternate channel was Mir, a domestic payment system designed to replace U.S. card issuers Visa and Mastercard for Russian domestic transactions. As part of this, the National Payment Card System was formally created in 2015, and Russian banks began to issue Mir-branded credit cards. In 2017, the Russian government formally designated Mir as the national payment system with mandated use in the public sector. After the 2022 invasion led U.S. issuers to withdraw from Russia, Mir became the dominant payment system, covering virtually all domestic transactions.¹⁹⁷ The second domestic channel was the System for Transfer of Financial Messages, which also was developed in 2014 as an alternative to SWIFT and gained widespread

adoption in Russia following the 2022 invasion.¹⁹⁸ These tools have allowed Russia to continue domestic financial transactions, though their reach outside of Russia remains very limited, confined to a small number of like-minded countries such as Belarus and Iran. The two systems also cannot replicate the scale and efficiency of Western-led systems.

Russia also has benefited from access to Chinese financial channels, which have helped partially offset its exclusion from the international financial system. While larger Chinese financial institutions have been careful to avoid engaging in activities that could subject them to sanctions, smaller Chinese banks with less connectivity to the West have facilitated correspondent banking and trade settlement for Russian institutions, including by settling Russian energy exports in Chinese RMB and helping facilitate Russian acquisitions of dual-use goods for its war effort. Collectively, these efforts have provided Russia with a key financial lifeline, reducing the impact of the sanctions and providing a cautionary lesson on how adversaries can adapt when under heavy financial pressure.

Though the dollar remains overwhelmingly dominant in international trade, the Russia financial sanctions have acted as a catalyst for some states questioning their reliance on the dollar.

At the same time, the freezing of Russian central bank assets led other central banks—particularly in emerging markets and countries with complicated relationships with the West—to diversify their holdings away from the dollar and other G7 currencies toward gold, RMB, and other alternatives. This trend has further accelerated in recent years following discussions between the United States and its G7 partners on whether to seize, rather than just block, Russia’s frozen assets to help fund Ukraine in its war efforts and for rebuilding.¹⁹⁹ Though the dollar remains overwhelmingly dominant in international trade, the Russia financial sanctions have acted as a catalyst for some states questioning their reliance on the dollar.

Overall, the Russia case illustrates how the scale of the target economy and the need for coalition management can be key constraints on what sanctions can accomplish. The transatlantic sanctions coalition has provided important political unity, undoubtedly expanding the reach of sanctions and reducing Russia’s evasion opportunities. Still, the United States and its allies have been unwilling to impose maximum energy sanctions on Russia as a systemically important producer embedded in global markets, given concerns over spillovers to allies and the global economy. This unwillingness, combined with Russia’s ongoing evasion tactics, means Russia has continued to earn significant revenues from its oil and gas exports, funding its war efforts and calling into question the effectiveness of economic pressure against a determined adversary with a long history of adapting

to U.S. economic pressure. Perhaps in response to these frustrations, the second Trump administration has deprioritized economic pressure as it seeks peace talks with Russia, with the number of sanctions imposed dropping significantly.²⁰⁰ The administration has also paused sanctions on certain Russian energy transactions as part of its effort to manage the energy crisis arising from the Iran conflict and the closure of the Strait of Hormuz.

Venezuela (2005–Present)

The final case in this chapter focuses on a country that in many ways represents the opposite issue of Russia. Venezuela is a significant energy producer that was in steep decline before sanctions were imposed while also having a much smaller economy than Russia’s, limiting concerns over spillover effects. It also crystallizes many of the other lessons raised in previous parts of this chapter, including on the issue of aligning sanctions goals with credible outcomes, the role of evasion and enforcement, and the interplay between economic pressure and military force.



Democratic Backsliding

The United States has imposed targeted sanctions on Venezuela since 2005, largely focused on individuals engaged in drug-related issues and Venezuela’s lack of cooperation on antiterrorism activities. Since 2017, the focus shifted to Venezuela’s democratic backsliding following the Constituent Assembly election, which the United States and its allies viewed as an effort to sideline the

opposition-controlled National Assembly and perpetuate power for President Nicolás Maduro and his regime. This was followed by Maduro's reelection in 2018 and subsequent swearing in to office in January 2019, which the international community viewed as illegitimate since opposition figures were barred from running. This democratic crisis motivated escalating economic pressure on Venezuela, with goals that were explicitly political from the outset, focusing on cutting off regime revenue and accelerating a negotiated political transition.²⁰¹

U.S. sanctions initially limited access to U.S. capital markets for the Venezuelan government and *Petróleos de Venezuela, S.A. (PDVSA)*, the state-owned oil company. These sanctions escalated significantly in 2019 when the United States announced a “maximum pressure” campaign and placed PDVSA on the SDN list, freezing its assets in the United States and immediately impacting the company's ability to export oil and therefore its access to the country's main source of hard currency. The sanctions also targeted imports of the diluents necessary to make Venezuela's heavy crude suitable for use as well as refined petroleum product imports, which compounded domestic fuel shortages.²⁰² The United States combined these measures with sanctions on foreign entities providing material support to the Maduro government and PDVSA, further amplifying the impact.²⁰³

The leverage of U.S. sanctions against Venezuela derived from the country's near-total dependence on oil exports. Prior to the increased U.S. sanctions, crude oil accounted for approximately 90–95 percent of Venezuela's export earnings and the majority of government revenue.²⁰⁴ At the same time, chronic mismanagement meant that PDVSA already had to import gasoline, diesel, and blending components—largely from the United States—to refine Venezuela's crude oil even before the sanctions, further increasing the country's vulnerability once these sanctions were imposed.²⁰⁵

The impact of these measures on Venezuela's oil sector and broader economy was dramatic. PDVSA's crude production fell from roughly 1.3 million barrels per day in 2018 to well under 700,000 barrels per day by late 2019. The loss of oil revenue accelerated economic collapse, leading to an approximately 35 percent drop in GDP in 2019 and acute shortages of fuel, food, and medicine.²⁰⁶ The financial sanctions compounded the impact by depriving the Maduro regime the ability to access credit or rollover its debt.

Adaptation and the Erosion of Leverage

As sanctions increased, Venezuela adapted by relying on a network of middlemen willing to assume sanctions risk, drawing directly on methods first developed by Iran. Russian intermediaries have helped Venezuelan oil continue to move to international markets through sales that obscure the ultimate buyer. Iran has supplied fuel, diluents, spare parts, and technical expertise necessary to keep portions of Venezuela's production and refining infrastructure functioning. Iranian entities have also assisted

with transportation, including the use of shadow fleet vessels, ship-to-ship transfers, and documentation practices designed to disguise ownership.²⁰⁷ The PRC, meanwhile, has arguably played the most important role by showing a willingness to buy significant amounts of Venezuelan oil. While Chinese state-owned firms have largely avoided direct exposure to U.S. sanctions, independent “teapot” refiners have been more than willing to buy Venezuelan crude, though generally at significant discounts reflecting the sanctions risk.²⁰⁸ As of November 2025, China reportedly purchased approximately 80 percent of Venezuela's oil.²⁰⁹ Up until the U.S. military actions of 2025 and 2026, Venezuela was able to use these evasion methods to maintain a meaningful level of illicit energy exports.

Conditional Relief

Beginning in 2021, the Biden administration focused on using sanctions relief as leverage to get the Maduro regime to agree to a negotiated political process. By that point, U.S. sanctions had already inflicted severe economic damage on Venezuela, creating what appeared to be an opening for negotiations. Maduro, for his part, made clear that participation in talks was contingent on sanctions relief.²¹⁰

The administration eased select restrictions on Venezuela's energy sector, while explicitly framing relief as reversible and contingent on political progress. This inducement-based strategy accelerated after Russia's invasion of Ukraine in 2022, which heightened U.S. concerns about global energy supply and created incentives for bringing Venezuelan energy back online.²¹¹ The most consequential of these measures was the issuance of a license to Chevron, permitting it to operate, produce, and export Venezuelan crude to the United States, while prohibiting payments to the Maduro government.²¹² This reflected an effort to thread multiple objectives: modestly increase global oil supply, preserve a U.S. commercial presence in Venezuela's energy sector, and create a reversible incentive tied to political concessions.

As a result of these measures, political negotiations took place periodically and produced some headline outcomes, such as the October 2023 Barbados Agreement in which Maduro pledged to respect primaries and set a date for 2024 elections.²¹³ However, spooked by opposition unity, the Maduro government simultaneously undermined the process by disqualifying leading opposition candidates and engaging in repression, unwilling to commit to true reforms that would undermine its hold on power. Ultimately, in July 2024 the regime conducted an overtly fraudulent election that saw Maduro reelected despite clear evidence to the contrary from independent observers, and the U.S. government promptly reimposed most sanctions.²¹⁴

Similar to the experience in Iran, the Biden administration's approach demonstrated that conditional relief can potentially open a path to negotiations. However, it also revealed the limits

of the approach when explicitly tied to political change. Unlike in Iran, where JCPOA negotiations were tied to a narrow nuclear deal, in Venezuela the U.S. government sought a full transition of power. Though this initially seemed possible, ultimately the Maduro regime was unwilling to relent and was able to leverage its complete control of the country to resist meaningful changes and cling on to power despite the overwhelming economic pressure.

Maximum Pressure and Military Actions

The second Trump administration decisively moved away from the diplomatic approach toward a renewed focus on “maximum pressure,” including expanded sanctions against Venezuela’s evasion networks.²¹⁵ Administration officials argued that conditional relief failed to produce meaningful progress toward a political transition and instead provided the regime with a temporary reprieve while it consolidated power and manipulated electoral processes.

The renewed economic pressure has been accompanied by U.S. military force. This has included a significant buildup of the U.S. military presence in the Caribbean, including repeated vessel strikes and the establishment of an effective quarantine that has directly interdicted oil tankers off the coast of Venezuela.²¹⁶ In early 2026, the Trump administration launched a military attack on Caracas and other locations in Venezuela and conducted a commando raid to apprehend Maduro and his wife, bringing them to the United States to face trial. Though the military campaign had ostensibly focused on Venezuela’s role in the drug trade, including by charging Maduro with narco-terrorism and drug trafficking charges, President Trump has focused on Venezuela’s oil industry by saying the United States will take over control and recruit U.S. companies to revitalize the sector.²¹⁷ Secretary of State Marco Rubio has also said that the U.S. military will continue to use its naval presence to enforce the de facto quarantine against sanctioned oil vessels attempting to enter or leave Venezuela.²¹⁸

Notably, it does not appear that either the Biden or the Trump administrations attempted to get the PRC to reduce its imports from Venezuela, and it is not clear that the PRC would have been willing to if they had. Unlike in the run-up to the JCPOA when the PRC was concerned about the Iranian nuclear threat, the PRC has no political incentive to support the United States on Venezuela sanctions. By shifting imports to teapot refiners insulated from international exposure, the PRC suffered no consequences if those companies were sanctioned. The U.S. military quarantine, however, likely will reduce the amount of Venezuelan energy exports to China moving forward.

The Trump administration’s approach has fundamentally altered the role economic pressure is expected to play in Venezuela, with the administration positioning it as just a component of a broader coercive strategy in which economic

pressure and the credible presence of military force operate in parallel. Though the willingness to employ force furthered the U.S. goal of removing Maduro from power, in some ways it also is a direct repudiation of the ability of economic pressure alone to further those goals even after a return to “maximum pressure” sanctions.

Lessons Learned from Modern Sanctions Cases

Taken together, the cases of North Korea, Iran, Russia, and Venezuela illustrate both the incredible reach and the inherent limits of modern sanctions. Powerful points of U.S. leverage, specifically the role of the U.S. dollar in global finance, have enabled the United States to impose real costs on sanctions targets. Even where the main economic activity targeted is a commoditized and globally available product, such as energy, financial sanctions have been able to create meaningful leverage by denying access to the financial transactions necessary to engage in cross-border trade. The overlapping and reinforcing nature of financial sanctions and energy sector sanctions in the Iran, Russia, and Venezuela cases demonstrates the complementary nature of these measures in building economic pressure.

At the same time, even with the power of dollar-based sanctions, the ability to build economic pressure has been constrained by structural economic dependencies on the target. In the Iran and Russia cases, reliance of European and Asian partners on energy exports from the sanctions targets undercut the potency of the economic pressure campaigns. This dynamic was manageable in the Iran case, both because of the smaller size of its exports and the allies’ ability to create a structured diplomatic process to enable a transition off Iranian oil. In the Russian case, involving substantially larger amounts of energy dependencies, the inability to cut off the primary source of revenue for Russia’s war effort may well be fatal to the overall economic pressure effort, despite remarkably high levels of allied coordination. The leverage of U.S. chokepoints cannot be fully realized when building economic pressure is constrained by meaningful dependencies of allied economies on the sanctions target.

The ability to apply economic pressure to create political effect has been critical—and often lacking. The Iran pre-JCPOA case is the clearest example where sanctions pressure created important momentum toward a negotiated outcome. Yet, this may be the outlier. Economic pressure has been unable to alter DPRK perceptions of the importance of its nuclear program as a guarantor of regime security, despite deep economic isolation. Similarly, Russian President Vladimir Putin’s views of the importance of victory in Ukraine and Maduro’s desire to remain in power in Venezuela (before the U.S. military strikes) appeared unshakable even in the face of mounting U.S. economic pressure. The hardened resolve of the targeted leaders in these cases shows the difficulty in translating economic pressure into political outcomes.

Overall Effectiveness of Modern Sanctions Cases

	North Korea		Iran		Russia	Venezuela	
		Pre-JCPOA	Post-JCPOA			Pre-2025	Post-2025
Overall Foreign Policy Success Rating	⊗	✓	⊗	⊖	⊗	⊖	
	Failure	Success	Failure	Mixed	Failure	Mixed	
Criteria of Economic Pressure							
Strategic Context							
Clear articulation of realistic goals	●	●	●	●	●	●	●
Backed by military force	●	●	●	●	●	●	●
Operational Construction							
Effective chokepoint	●	●	●	●	●	●	●
Reversibility	●	●	●	●	●	●	●
Impact on political incentives	●	●	●	●	●	●	●
Allied alignment	●	●	●	●	●	●	●
Nonallied participation	●	●	●	●	●	●	●
Implementation	●	●	●	●	●	●	●
Durability							
International legitimacy	●	●	●	●	●	●	●
Sustainability for U.S. economy	●	●	●	●	●	●	●
Systemic effects	●	●	●	●	●	●	●

Across all four modern sanctions cases, the role of the PRC as a sanctions spoiler is prominent. When the PRC cooperates on sanctions, as it has occasionally done in the cases of Iran and the DPRK, it is less likely that the sanctions will be undermined through evasion and alternative commercial channels routed through China. But just as often, the PRC supports the sanctions target and enables continued trade, as has been the case with Russia and Venezuela (and Cuba, as outlined in Chapter 1). China, a net energy importer, has been a large energy buyer for heavily sanctioned countries, with roughly 41 percent of its imports coming from Iran, Russia, and Venezuela as of late 2025.²¹⁹ In fact, though China has occasionally reduced imports from one or more of the countries over the years for limited periods, the only time it substantially cooperated was in the run-up to the JCPOA where it was a direct participant in negotiations and had a shared goal in preventing Iran from developing a nuclear weapon. The PRC’s sanctions spoiler role has undermined economic pressure efforts that otherwise had broad international support, such as the multilateral efforts on North Korean and Iranian WMD programs and the international coalition sanctioning Russia after the 2022 invasion of Ukraine.

Evasion and enforcement issues also have undermined the impact of economic pressure. Across the energy cases, enforcement was challenged by the fact that oil is fungible, easy to transport, and origins can be obscured through ship-to-ship transfers and opaque trading structures. Evasion concerns were present across all four cases, highlighting the importance of active monitoring and enforcement for sanctions to be successful. Similarly, Russia showed how aggressive deployment of financial sanctions risks accelerating fragmentation of the

global financial system and the development of alternatives that allow for additional channels for evasion. The development of alternative systems, along with the proliferation of evasion tactics in and between heavily sanctioned countries, will have meaningful impacts on the United States’ future ability to project economic power.

The limits of economic pressure have highlighted the role that military force may play in achieving U.S. foreign policy goals. In the Russia and DPRK cases, military force has been ruled out due to strategic concerns over armed escalation. In the Iran and Venezuela cases, even maximum economic pressure was seen as insufficient, leading to direct U.S. military action. Given the diversity of factors, it is difficult to make a clear case on whether use of force is a useful complement to economic pressure (when military force is an available and appropriate option), or whether the escalation to use of force indicates that economic pressure has not succeeded. It remains uncertain whether escalation to military force will fare better.

Finally, while the modern sanctions cases have attempted to learn lessons from the legacy embargoes, they run the risk of replicating similar mistakes when it comes civilian impacts. Even as blunt embargoes are not imposed initially, the accumulation of restrictions over time has approximated the same effects. Exceptions intended to provide for the flow of humanitarian goods are important but typically inadequate in the face of private sector overcompliance and practical difficulties in conducting commercial transactions in a heavily sanctioned jurisdiction. Humanitarian impacts in each of these cases show that building meaningful economic pressure is difficult to do without having a damaging impact across the civilian economy.

Chapter 3: Technology Denial Cases

TECHNOLOGY DENIAL EFFORTS, which are at the “red hot center” of current policy debates, aim to degrade a strategic adversary’s military capabilities and thus provide a meaningful deterrent to or constraint on conflict.²²⁰ Technology denial efforts differ from other lines of economic pressure in that they are generally not meant to be coercive and instead seek to constrain an adversary’s options well in advance of a potential crisis or conflict by limiting the military capabilities of the target. Export controls have been the primary instrument of U.S. technology denial efforts, though recent years have seen an expansion of the tool kit to include other mechanisms, such as investment controls.



While U.S. technology denial efforts have heated up in recent years, they are not new. Since the postwar period, the United States has consistently deployed such efforts as a key part of its broader foreign policy and national security objectives, including the strategic trade controls that were a central part of U.S. economic policy toward the Soviet bloc during the Cold War. Current technology denial efforts aimed at the PRC and Russia have similar goals of denying these adversaries technologies and goods relevant to their national security and military capabilities. This chapter examines the Cold War strategic trade controls, restrictions on Chinese telecommunications companies starting

in the 2010s, controls on commercial engagement with China’s AI and chip ecosystems starting in the 2020s, and the export controls on Russia following its invasion of Ukraine in 2022.

Cold War Strategic Trade Controls (1949–1994)

Throughout the Cold War, the United States maintained a system of strategic trade controls aimed at denying the Soviet bloc access to Western military technologies and other sensitive goods. The controls were implemented both through unilateral U.S. measures and coordinated measures agreed to by the United States and other members of the Coordinating Committee for Multilateral Export Controls (CoCom). The strategic trade controls experience is instructive for current efforts to target technology denial campaigns at particular countries. Yet, it was also an experience rife with enforcement challenges, tensions with allies, and decidedly mixed results in terms of constraining Soviet access to sensitive technologies.

U.S. Controls

Modern-day technology containment efforts can trace their roots back to the postwar system of strategic trade controls. During the world wars, the U.S. president enjoyed broad powers to restrict trade under the Trading with the Enemy Act of 1917 and related authorities.²²¹ It was not until after World War II that the president was given comparable authorities to restrict trade in peacetime, prompted by the emergence of the Cold War. The Export Control Act of 1949 established the first peacetime system of trade controls, providing the president with the authority to “exercise the necessary vigilance over exports from the standpoint of their significance to the national security.”²²² Strategic trade controls were a core part of the overall U.S. containment strategy. The controls primarily sought to degrade Soviet capabilities through the denial of Western technology that was militarily significant, though they were occasionally used for other foreign policy purposes, such as when President Jimmy Carter imposed a grain embargo on the Soviet Union in response to its 1979 invasion of Afghanistan. Particularly as avoiding armed conflict with a nuclear-armed Soviet Union became a driving motivation of U.S. foreign policy, export controls and other economic measures short of war gained prominence.²²³

Challenges in Controlling Dual-Use Technologies

If U.S. strategic trade controls had impact, it was not because they succeeded in denying all strategic technology to the Communist bloc. Indeed, one contemporaneous government investigation asserted that “There is no question that the U.S.S.R. has benefited militarily from Western technologies and equipment.”²²⁴ The Soviets were adept at acquiring militarily significant technologies through both licit and illicit means. This was in part due to weak enforcement of strategic trade controls, but

also because controlling portable technologies in an increasingly connected global economy with multiple suppliers was simply hard to do.

Then, as now, identifying the right technologies for control was a challenge. The best time to have controlled a technology was before it had been transferred outside of the United States, but this was often before one could tell if the technology would have military significance. As dual-use technologies, such as semiconductors, took on more importance for the military, this challenge of identifying military significance compounded. The rapid pace of technological development and diffusion meant that policy-makers were too often playing catch-up, identifying the right technologies to control only after they had become widespread.²²⁵ These difficulties, combined with commercial pressure pushing against more controls and lackluster allied buy-in, meant that a full denial strategy was never viable. Instead, strategic trade controls worked if they increased the costs of Soviet technology acquisition or otherwise threw some sand in the gears. The saving grace may have been that the Soviet Union never developed a core practice of indigenous innovation that enabled it to absorb and then leapfrog Western technologies.²²⁶ Instead, it was reliant on a continual process of stealing and copying Western technologies, often leaving it a step behind the West.

Despite these challenges, U.S. strategic trade controls tended to expand, often based on an understandable, if difficult to implement, strategic rationale. The goal of the strategic trade controls was always to deny technologies of military significance, but how this was interpreted shifted over the Cold War. One notable milestone in this effort was the “Bucy Report,” a report from a Defense Science Board Task Force chaired by J. Fred Bucy that attempted to rationalize the export control system. Rather than attempting to control too many goods, the Bucy Report urged a focus on those goods with direct military significance and those that could enable revolutionary, rather than evolutionary, advances in indigenous capabilities.²²⁷

Yet, at the same time, the Bucy report reflected just how difficult it was to keep a control list small enough to administer effectively while large enough to meaningfully impede Soviet technology acquisition efforts. The topline recommendation was to focus controls not on final goods, but on the underlying design and manufacturing know-how to make strategic technologies, in a Cold War approximation of “let’s not teach the Soviets how to fish.” It also expressed a deep skepticism about the ability to separate military from civilian end uses in the Soviet bloc, acknowledging the limited ability of the United States to engage in real oversight and enforcement activities in what were essentially off-limits jurisdictions. In practice, these recommendations

reflect an expansive view of what should be controlled, if no dual-use technology that could potentially be applied to a military purpose could be exported to either civilian or military users in restricted countries. The Bucy Report previews much of the logic of the Biden-era export control strategy, which was based on denying China access to core AI enablers (i.e., the underlying technology, such as AI chips or the equipment to make such chips), regardless of whether the intended end use was civilian or military.²²⁸ Fundamentally, the problem then (and now) is that once a country is tainted by the perception of national security risk, nearly any export or potential user can be thought to present security risks in some form.

Tension Between Export Controls and Export Promotion

Tension between the benefits of expanding trade and the economic costs of imposing controls was a prominent part of U.S. policy debates about strategic trade controls. In the U.S. bureaucracy, the Pentagon pushed for expansive controls, while the Department of Commerce, responsible for safeguarding commercial interests, argued for restraint.²²⁹ U.S. industry pushed for fewer controls, driven by concerns that export controls undermined their competitiveness abroad, particularly when U.S.

controls were more stringent than those of other countries, which they often were.²³⁰ U.S. allies, including other CoCom members, were also more hesitant to adopt

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expansive controls as their economies were more reliant on trade generally. The debate over the appropriate balance between economic and security interests was complicated by the fact that security benefits are often hard to quantify. “There is no export control policy which does not incur undeniable costs and confer uncertain benefits on the United States,” in the words of a 1983 report from Congress’s Office of Technology Assessment.²³¹

U.S. policy never resolved this inherent tension. As export control authorities were updated over the course of the Cold War era, they maintained the dual goals of restricting trade that was against U.S. national security and foreign policy interests while simultaneously promoting the majority of trade that was deemed nonsensitive.²³² Controls were tightened or loosened in rough accordance with shifts in the geopolitical environment. For example, controls on exports to the Soviet Union eased during the détente of the 1970s then snapped back following the Soviet invasion of Afghanistan.²³³ Similarly, controls on exports to China were ramped up during the Korean War, eased during the 1970s and ’80s as the United States normalized relations, then strictly tightened after the 1989 crackdown in Tiananmen Square.²³⁴

Contemporaneous government studies and legislative efforts acknowledged the tension between trade controls and trade

promotion, but rather than resolving it as a matter of policy, they tended to push for process improvements in how the export control system was implemented. Recommendations, for example, included clarifying the criteria for controlling technologies, focusing only on technologies with direct military significance, and strengthening policymaking processes for implementing controls, among other process recommendations.²³⁵ A well-administered export control system implemented pursuant to clear strategic policy guidance was seen as critical to both U.S. economic and security interests, regardless of whether one was on the control or the promotion side of the debate.

Coordination and Frustration with Allies

For a few short years in the postwar period, the United States was the dominant producer of strategic items. However, as Europe recovered from World War II and strategic capabilities became more diffuse, the United States was often just one important producer among several. The United States recognized early on that controls would be most effective if implemented multilaterally rather than unilaterally, and from its earliest days, the U.S. strategic trade controls system was built upon a premise of coordination with close security allies.

CoCom was the policy solution to this need for coordination, acting as an informal mechanism for aligning strategic trade controls with close allies. It eventually included nearly all members of NATO, as well as Japan, earning it the moniker of the “economic arm of NATO.”

Unlike later export control regimes, which were country-agnostic, CoCom was explicitly designed to target trade with the Soviet bloc and Communist countries. The main activities of CoCom centered on the development of lists of strategic items that members did not wish to see exported to Communist states, including lists of munitions, items related to nuclear energy, and industrial or commercial goods with potential military applications (i.e., dual-use goods).

CoCom was a purely voluntary arrangement. Often referred to as a gentlemen’s agreement, it reflected a political agreement among members to coordinate controls, rather than a legally binding requirement to do so. Its existence and activities were kept secret, and its members deliberately never attempted to evolve it into a formal treaty. Once there was unanimous agreement on goods to add or remove from the control lists, CoCom members implemented controls in their domestic legal systems. If disputes arose, which they inevitably did, they were handled through diplomatic rather than legal means.

Despite its informality, CoCom had important mechanisms to ensure alignment of controls between its members, including mechanisms that would fall away in the post-Cold War export

control regimes. This included a “no undercut” agreement, under which it was expected that members would not permit their own companies to export goods on the CoCom lists. If there was a desire to export a good on one of the lists, the member was expected to seek an exemption from CoCom, and any other single CoCom member could veto such requests. That was the theory, at least. In practice, defections and weak enforcement undermined these principles and ultimately the effectiveness of CoCom.

Divergence and Enforcement Issues

While CoCom provided the mechanism for coordination, it had a chronic issue with consensus. The United States was the most aggressive proponent of new controls. Analysts of the period attributed this to the reliance on expanding trade of European CoCom members, which had substantially smaller internal markets than the United States.²³⁶ Another important factor was that the United States was the security guarantor; it was fielding the military that would provide for global security, leading it to more jealously guard the technologies that could determine the military balance of power.²³⁷ But CoCom was a consensus mechanism, and the United States did not enjoy any special rights in CoCom for its provision of the security umbrella.

The consensus practice meant that CoCom control decisions reflected a least-common denominator mindset.²³⁸ Proposals to

list new technologies could be vetoed by any one CoCom member, including those who might be prioritizing commercial interests. The consensus practice also applied to requests for exceptions to CoCom’s restrictions, which may have made it harder to get controls imposed in the first instance. If the United States could veto an exception request for a technology that another CoCom member thought it might want to export someday, that member simply could refuse to list the technology in the first place.²³⁹ As a result, U.S. unilateral controls began to diverge from CoCom lists, as the United States sought to provide at least partial protection for strategic technologies that CoCom would

not agree to list. The practice of unilateral controls, however, created its own set of issues, as foreign firms could backfill sales when U.S. firms were prohibited from exporting unilaterally controlled goods.²⁴⁰

Enforcement of controls by CoCom members was an ever-present concern. CoCom itself was not an enforcement body, and it authorized no sanctions against members or companies violating the controls agreed by consensus among its members. Instead, each individual member had to enforce the CoCom-agreed controls through its domestic law enforcement processes. It was widely held in the United States that other CoCom members were simply not enforcing the controls, either

WHILE COCOM PROVIDED THE MECHANISM FOR COORDINATION, IT HAD A CHRONIC ISSUE WITH CONSENSUS.

through lack of attention or, in some cases, deliberate efforts to evade controls about which they had lukewarm feelings.²⁴¹ The concerns over lax enforcement periodically came to a boil when particularly egregious violations occurred, such as the 1980s Toshiba-Kongsberg scandal, involving a Japanese and a Norwegian company that conspired to export stealth nuclear submarine technology in clear violation of CoCom controls. The boldness of the violations, combined with a lackluster response from the Japanese and Norwegian governments, caused the scandal to explode in Washington, involving some highly photogenic moments when members of the U.S. Congress took a sledgehammer to Toshiba products in front of the U.S. Capitol.²⁴² Investigative reports following the incident unveiled that not only were the specific companies at fault, there was evidence of widespread evasion of CoCom controls generally.²⁴³

Siren Call of Extraterritorial Controls

The United States consistently turned to extraterritorial measures when frustrated with lax CoCom enforcement. The Battle Act of 1951 was an early effort to incentivize allies to enforce CoCom measures, and it threatened to cut off U.S. foreign assistance to countries that violated CoCom. At the height of the Marshall Plan, this was a powerful incentive for Europe, but it quickly faded as U.S. assistance drew down and trade ties grew to exceed the value of the assistance. More importantly, there was great reluctance of U.S. presidents to sanction allies, and the Battle Act sanctions authorities were never used.²⁴⁴

President Ronald Reagan attempted a tougher stance when he authorized controls on the export of oil and gas equipment for the West Siberian Pipeline in 1981. The controls were initially framed as a response to the declaration of martial law in Poland, but they had an equally important objective of preventing the pipeline from reinforcing European reliance on Soviet energy supplies.²⁴⁵ CoCom members were staunchly opposed to the U.S. controls, viewing the pipeline as an important way to diversify energy supplies. They were also appalled that the U.S. controls were applied extraterritorially, applying to entities in Europe, and many ordered their companies not to comply.²⁴⁶ The backlash eventually led to a U.S. reversal of the policy, and the sanctions ultimately had little noticeable impact on the situation in Poland or the progress of the pipeline.²⁴⁷

Similarly, in response to the Toshiba-Kongsberg incident, the United States passed a ban on imports of Toshiba and Kongsberg goods but softened the ban to account for the uncomfortable fact that the Department of Defense relied on supply from these companies.²⁴⁸ The same legislation authorized an intriguing alternative concept, which allowed the government to sue violating companies with the purpose of “restoring the military preparedness of the United States on account of the violation involved.”²⁴⁹ This provision was never invoked, as it was tied

explicitly to CoCom controls, which would shortly dissolve with the end of the Cold War and the end of CoCom in 1994.²⁵⁰

The experience with CoCom highlights both the necessity of, and intense frustrations with, coordinated controls. Coordination was essential to effectively build a chokepoint over a strategic technology available from multiple suppliers and to ensure that U.S. exporters were not put at a disadvantage. But the wide divergence between the U.S. threat perspective and that of other CoCom

Technology leakage through allied countries led the United States to try to enforce its preferences through extraterritorial measures, which were inevitably met with backlash.

members, and the lackadaisical approach to enforcement, meant that CoCom controls were porous. Technology leakage through allied countries led the United States to try to enforce its preferences through extraterritorial measures, which were inevitably met with backlash from other CoCom members, undermining CoCom cohesion. CoCom could be seen as partially effective in coordinating controls on which all partners were bought in, but its fatal flaw was its inability to reconcile differences over controls for which consensus did not exist. When the Cold War ended, the CoCom members agreed to let the arrangement die a quiet death, as the control system shifted toward the country-agnostic, nonproliferation regimes that still exist today.

Transition to Nonproliferation Regimes

As the Cold War wound down, the export control systems of the United States and allies did not disappear, but they did undergo a fundamental change in their scope and purpose. Rather than implementing a strategic embargo against the Soviet bloc, controls became primarily oriented around nonproliferation objectives. Between 1975 and 1996, four new multilateral supplier arrangements were established to control the spread of WMDs and other sensitive technologies. This included the Wassenaar Arrangement, which controlled dual-use goods and was negotiated as a sort of successor to CoCom, though with important differences, such as the inclusion of Russia as a member rather than a target.²⁵¹

The new regimes were open systems, built to foster alignment of controls among any state that possessed a capability and that would agree to the groups' terms. This structure matched the geopolitical thinking of the time, as globalization went into overdrive and U.S. foreign policy prioritized bringing competitors into the fold in an attempt to make them responsible stakeholders in a rules-based international system.²⁵² As with CoCom, the nonproliferation regimes have worked well as coordination mechanisms when there is a common group of like-minded countries who agree on the end goal of controls. But they can be easily undermined when consensus is lacking or when major suppliers exist outside

of the regimes, as is often the case.²⁵³ A lack of resources, poor enforcement and verification, and conflicts about the appropriate scope of controls have remained persistent challenges.²⁵⁴

The four multilateral regimes continue today, though their relevance has waned as strategic competition has returned to a central role in U.S. foreign policy. Many of the major U.S. export control efforts today, including efforts to slow China’s development of militarily critical technologies and to deny Russia the critical technologies to wage war in Ukraine, have taken place outside of the existing regime structures. As seen in the following cases, the idea of strategic trade controls, which seek to deny critical technologies to particular countries, is once again a prominent part of U.S. control efforts.

Chinese Telecommunications Restrictions (2018–Present)

The United States levied a bevy of restrictions on Huawei and ZTE, two major Chinese telecommunications companies, throughout the 2010s. The goals of those restrictions were wide ranging. Some were intended to protect the U.S. telecommunications infrastructure from potential PRC exploitation. Others were punishment for the companies’ sanctions violations. The escalating U.S. campaign against Huawei specifically raised questions about whether the United States was trying to destroy the company entirely. While many restrictions were imposed, it was the innovative use of export controls, which cut Huawei and ZTE off from critical U.S. technologies, that arguably had the strongest impact. But the mixed signals of what exactly the United States

was trying to achieve make it difficult to assess the overall success of the U.S. policy effort, as well as complicate efforts to secure allied alignment with the U.S. restrictions.

Slow Build of National Security Concerns

The growth of Chinese telecommunications companies in the 2000s and 2010s highlighted the new types of security challenges that the United States would face as China’s economy boomed and its technological capabilities became world leading. Huawei and ZTE, both homegrown Chinese telecommunications companies, had deep if sometimes murky connections to the Chinese government.²⁵⁵ By the 2010s, they had made significant inroads into global telecommunications markets, sparking worries that the next generation of telecommunications networks would be vulnerable to PRC surveillance or exploitation.²⁵⁶ Protection of U.S. networks was top of mind, but U.S. policymakers also had deep concerns about the use of Huawei and ZTE globally, given that U.S. information often flowed through international networks. Huawei’s founder, Ren Zhengfei, likely did not help his case, with observations such as, “A country without its own program-controlled switches is like one without an army.”²⁵⁷

“A COUNTRY WITHOUT ITS OWN PROGRAM-CONTROLLED SWITCHES IS LIKE ONE WITHOUT AN ARMY.”
— HUAWEI FOUNDER REN ZHENGFEI

The U.S. policy response to the threat from Huawei and ZTE was often slow and patchy. In 2012, the House Permanent Select Committee on Intelligence issued a damning report on the companies, pushing for strict restrictions on their operations in the U.S. market.²⁵⁸ Six years passed before Congress instituted a limited ban in 2018, applying only to U.S. government procurement of products from the two companies.²⁵⁹ In 2019, the Trump administration issued a sweeping executive order giving itself new authorities to ban or restrict the import of telecommunications goods and services, expanding the potential remit of restrictions to cover all commercial activities in the United States, not just government procurement.²⁶⁰ This action was largely understood to be targeted at Chinese telecommunications companies, but the authority has yet to be invoked to implement a comprehensive ban on Huawei and ZTE sales in the United States.²⁶¹

U.S. actions were instead ad hoc and opportunistic. The Federal Communications Commission (FCC), which regulates U.S. telecommunications networks, leveraged its funding resources to ban any service provider that received certain FCC funds from using Huawei or ZTE equipment.²⁶² In practice, this mostly impacted rural service providers, who found Huawei’s



cheaper offerings attractive as they sought to expand network access in underserved areas (and subsequently were left in the lurch as the FCC did not offer additional funds to help them cover the cost of tearing out the Chinese gear.²⁶³) Additionally, U.S. government reviews of foreign acquisitions were used to force foreign investors to commit to not using Huawei or ZTE products in U.S. networks.²⁶⁴ This patchwork of policy actions in effect has barred Huawei and ZTE from the U.S. market, even absent a holistic ban. In parallel, U.S. diplomats urged allied countries to take similar actions to protect their own networks, with mixed success.

Technology Denial Escalation Against Huawei

The U.S. policy efforts to expunge Chinese providers from U.S. networks were not the most impactful action taken against Huawei and ZTE. That honor is reserved for the export control listing of both companies, severely restricting their ability to buy U.S. technology and goods. For companies deeply reliant on U.S. technology, the export control actions were potentially a death knell.²⁶⁵ ZTE was added to the Department of Commerce's Entity List in 2016 and Huawei in 2019.²⁶⁶ The cited rationale in both cases was violation of U.S. sanctions on Iran, a wholly legitimate charge given the tendency of both companies to play fast and loose with their commercial dealings with heavily sanctioned countries.²⁶⁷ But the sanctions rationale landed with a thud against the backdrop of the larger U.S. campaign against the companies, raising questions about whether the United States was trying to kill the companies, particularly Huawei, outright.

The ZTE and Huawei sanctions violation cases took different paths. ZTE's case was initiated in the Obama administration and initially resolved through a settlement in March 2017 in which the company agreed to a \$1.2 billion fine and management overhaul.²⁶⁸ ZTE was back on the chopping block in 2018 after multiple violations of its settlement agreement, and Commerce re-imposed the denial order that had been conditionally suspended as part of the settlement, cutting ZTE off from all U.S. goods.²⁶⁹ The denial order was lifted shortly after, however, when Commerce struck a new settlement deal with ZTE after a call between President Trump and General Secretary Xi Jinping and reportedly as the U.S. president sought to ease tensions while pursuing a U.S.-PRC trade deal.²⁷⁰ ZTE remains subject to the terms of this second settlement and has not been re-listed on the Entity List or other export control lists.

Actions against Huawei, on the other hand, escalated and stuck—for the most part. In a move that proved to be diplomatically explosive, U.S. investigators working on the Huawei sanctions violation case pushed Canadian officials to detain Meng Wanzhou, the Huawei chief financial officer, as she transited through Vancouver in late 2018.²⁷¹ Besides the fact that investigators targeted a company executive personally, rather than acting against the corporate entity, Meng also happened to be the daughter of Huawei Founder Ren Zhengfei. The PRC retaliated swiftly,

detaining two Canadian citizens on sham charges of espionage. The Canadians, Michael Kovrig and Michael Spavor, would be held in brutal conditions for nearly three years, until released as part of a deal that also saw Meng returned to China from her house arrest in Vancouver.²⁷²

Other harsh U.S. actions soon followed. Huawei's Entity List addition, initially imposed in 2019, was expanded in 2020 to include a novel application of a little used export control tool, the foreign direct product rule (FDPR).²⁷³ The initial Entity List action had the wind taken out of it once U.S. firms realized they could easily (and legally) navigate around it by making goods in their overseas locations.²⁷⁴ The FDPR fixed this, by making it illegal to ship any foreign-made goods to Huawei if those goods were a direct product of U.S. technologies. In lay terms, this meant that any company, anywhere in the world, that used U.S. machines or software to produce a good could not sell that good to Huawei without U.S. government approval. The FDPR control was particularly potent in the critical chip sector, as U.S. firms dominate the market for the highly complex software and machinery necessary to build chips.²⁷⁵ It is nearly impossible to run a modern semiconductor fabrication line without U.S. tools or software involved somewhere in the process.

The Huawei Entity List addition was a dramatic move, in no small part because it meant lost sales for some of America's most important technology companies. U.S. technology was integral to Huawei's growth, and the company relied heavily on U.S. suppliers for chips and software. Estimates at the time of the Entity List action noted that upwards of \$10 billion in U.S. sales to Huawei could be in jeopardy.²⁷⁶ Industry pressure, and the sensitivity of the first Trump administration to market dynamics, ultimately led to a compromise in which Commerce would issue licenses for less sensitive sales to Huawei, while maintaining tight

A Huawei with its own homegrown technology would be a formidable competitor, and one that is less susceptible to U.S. economic pressure.

control over goods that could support Huawei's 5G build-out. This has led to near constant frustration about the true aims of the Huawei Entity List addition. Was it a well-justified response to rampant sanctions violations? A nuanced effort to place constraints on Huawei's growth in advanced telecommunications build-out, while maintaining revenue flows for U.S. firms? Or should it have been a company killer policy, aimed at destroying Huawei entirely?²⁷⁷

The muddiness of U.S. aims also made coordinating with international partners difficult. The first Trump administration made a concentrated push to convince close allies to expel Huawei and ZTE equipment from their own networks, arguing about the risks associated with having a Chinese-controlled company running

critical telecommunications infrastructure.²⁷⁸ They also noted that it would be difficult for the United States to share intelligence over unsecure networks.²⁷⁹ Allies were skeptical, looking for “smoking gun” proof that Huawei was supporting PRC surveillance efforts, with only a few persuaded by U.S. arguments that the real problem was that the gun was loaded and one did not want to wait until it was fired to try to fix the problem.²⁸⁰ Close partners, such as the United Kingdom, were inclined to take advantage of Huawei’s cost-effective offerings while establishing extensive mechanisms to oversee the installation and operation of the gear in their networks.²⁸¹

There was also a pragmatic element to allies’ objections. There just were not many viable alternatives to Chinese providers anymore. Building out a 5G network was a national imperative for many governments, and if Huawei and ZTE were banned, it could put those governments’ new network deployments back by years. It was finally the Huawei Entity List action that decided things for some allies, as it called into question the continued viability of Huawei as a going concern and major 5G provider. Currently, several U.S. allies have some level of restrictions on Huawei operating in their markets, but it is far from a holistic alignment on policy to expel Huawei from critical networks.²⁸²

Unclear Goals, Unclear Results

Clear lessons are hard to draw from the saga of Huawei and ZTE, in large part because of the confused nature of the U.S. policy goals. One of the many such goals was to secure U.S. networks from PRC exploitation.²⁸³ This has succeeded in the sense that Huawei and ZTE now face a web of restrictions that largely prevent them from selling directly into U.S. telecommunications infrastructure, and PRC cyber actors will have to look for other means to hack into U.S. networks. Preventing all PRC cyber exploits was not the goal of U.S. policy and would not have been a reasonable one in any case, given how advanced PRC cyber capabilities are. But making a small dent in the bigger problem is a worthy endeavor, and one that the restrictions on Chinese telecommunications companies arguably supported in the short term.

The success of U.S. efforts to degrade Huawei technologically is less obvious. To be sure, the export controls and other U.S. actions have harmed Huawei. It has lost its ability to sell into many advanced economies, and its goal is now to recover the levels of revenue and growth that it enjoyed before the controls.²⁸⁴ If one defines success of a technology denial campaign narrowly, in that it slows down the progress of a competitor, then U.S. actions against Huawei have arguably succeeded. But its share of global telecommunications markets has remained stable, as it has replaced Western markets with those in the developing world and expanded its advantage in the domestic Chinese market.²⁸⁵ Its homegrown HiSilicon chip unit is not world leading yet, but Huawei has shown an impressive ability to innovate around U.S. restrictions to develop chips just behind the leading edge, although

potentially at lower quality and volume.²⁸⁶ Massive government support has helped it maintain its stability and continue its research and development (R&D) efforts.²⁸⁷ The real question is whether Huawei is poised to bounce back, and this time with less reliance on U.S. technology. A Huawei with its own homegrown technology would be a formidable competitor, and one that is less susceptible to U.S. economic pressure.

AI and Chip Ecosystem Controls (2020–Present)

Following the actions against the Chinese telecommunications companies, U.S. policy soon expanded to target China’s broader capabilities to produce advanced technologies, with a focus on AI and chips. Through the first Trump and then the Biden administrations, U.S. policymakers adopted the view that truly slowing China down would require casting an even wider net of controls over critical technologies. This meant denying critical technologies to any user in China in an attempt to degrade entire technology ecosystems, rather than focusing on particular military customers. It also meant that the types of technology denial instruments expanded beyond just export controls, as U.S. policymakers sought to cut off more avenues of U.S. support to China’s indigenous technology ecosystems. The ecosystem controls have had strongly negative impacts on China’s technology development, but their long-term durability remains uncertain given ongoing enforcement issues and the potential for accelerating Chinese indigenous innovation.



Zero-Sum Technology Competition

The U.S. government started to wield the Entity List expansively toward the end of the first Trump administration, adding dozens of Chinese entities in its final year.²⁸⁸ The listings included major Chinese companies, notably the Semiconductor Manufacturing International Corporation (SMIC), China’s most important chip fabricator. The U.S. government cited the PRC’s military-civil fusion doctrine and the risk of technology leakage to military entities as primary reasons for the SMIC listing.²⁸⁹ In parallel, U.S. officials successfully lobbied Dutch counterparts to block the export to China of extreme ultraviolet (EUV) tooling, the massively complex semiconductor manufacturing equipment (SME) that only the Dutch company ASML can produce and that is required to make the most advanced chips.²⁹⁰ The goal of U.S. policy was to prevent China from developing the indigenous capability to make advanced semiconductors, and the U.S. government was willing to choke off key enabling technologies to the entire Chinese market to achieve this. This approach aligned closely with the Trump administration’s *National Security Strategy*, which pivoted U.S. policy toward a view that the PRC was a strategic competitor of the United States.²⁹¹

The Biden administration maintained the strategic competition posture vis-à-vis the PRC and expanded corresponding actions in important ways. Key Biden officials expressed the view that it was not possible for U.S. policy to change the PRC, and that instead the goal of U.S. policy should be to defend U.S. interests and shape the PRC’s operating environment to the extent possible.²⁹² The administration also viewed the PRC as a formidable competitor, using its *National Security Strategy* to note that the PRC was the only actor with the intent and capability to challenge the U.S.-led rules-based international order.²⁹³ Export controls again fit neatly into the United States’ strategic rationale, as the Biden administration articulated a clearly zero-sum view of competition with the PRC, seeking to keep the United States as far ahead as possible in the technologies that would be critical for U.S. economic and security interests.²⁹⁴

The series of export controls imposed by the Biden administration continued the ecosystem approach of denying key technologies to China writ large, with a focus on denying the export of AI-enabling technologies such as advanced AI chips (or “compute”).²⁹⁵ As China’s ability to access compute capabilities through alternative means, such as cloud computing, became clear, controls expanded progressively to cut off other access routes.²⁹⁶ The culminating action was the release of the AI diffusion rule in the last week of the Biden administration, which set up a global licensing regime for the export of advanced AI chips anywhere in the world. Controversially, the rule proposed caps on the numbers of AI chips that other countries (including U.S. allies) could receive, recognizing that the aggregate amount of computing power was a key variable for how quickly a country could develop its own AI capabilities.²⁹⁷

Export controls were not the only thing expanding as part of the U.S. strategy across the first Trump and then the Biden administrations. Restrictions on foreign investment in the United States were tightened, driven by concerns that Chinese investments in Silicon Valley were providing China with access to emerging technologies that could be strategically important.²⁹⁸ New authorities to restrict U.S. investments in critical technology sectors in China were stood up, with the goal of preventing unique U.S. know-how from accelerating the indigenous development of the very technology ecosystems that U.S. export controls were seeking to degrade in China.²⁹⁹ Once U.S. policy asserted that economic ties with China were a risk, it was hard for

THE BIDEN ADMINISTRATION ARTICULATED A CLEARLY ZERO-SUM VIEW OF COMPETITION WITH THE PRC.

policymakers not to see new areas of risk popping up constantly across the breadth of the U.S.-China commercial relationship. Consequently, the technology denial tool kit expanded to address these new areas of perceived risk. China’s technology companies were highly adaptive, far better at absorbing U.S. technologies than their Soviet analogues and capable of innovating to quickly catch up—and increasingly, to exceed—their U.S. competitors.³⁰⁰ Broad denials of key enabling technologies and supporting commercial activities, such as investment flows, were seen as the only approach that stood a chance of slowing China’s military technology advances. But they were not without controversy.

Allies and Extraterritorial Controls

U.S. allies were reluctant, and sometimes outright opposed, to aligning with the new U.S. ecosystem controls approach. While they had concerns with the PRC’s increasingly aggressive military posture, they often did not view their relationship with the PRC through the same lens of strategic competition as the United States did, or at least not predominantly.³⁰¹ Economic relations with China weighed heavily. U.S. allies remained more dependent on trade generally than the United States, and China had become a top trading partner for most of them.³⁰²

Uncertainty around U.S. motives likely also played a role. No allies were on board for a complete decoupling from China, an idea that was not infrequently discussed in Washington.³⁰³ Biden administration officials attempted to assuage concerns with their “small yard, high fence” framing, which argued that strict controls were being placed around only a small number of highly sensitive technologies.³⁰⁴ They also adopted the EU’s framing of derisking rather than decoupling, intending to signal

a more nuanced approach to balancing economic costs and security risks.³⁰⁵ A core problem with this framing, however, was that the small set of technologies to be controlled also happened to be those technologies that China was prioritizing and that were projected to be among the most commercially significant in the future. The yard may have been small, but it contained all the most important technology. It also seemed like the yard was constantly growing, as new controls were rolled out with a steady drumbeat.

Coordination was also strained by the impact of the expanding controls on firms from allied countries, which manifested in multiple ways. On some occasions, the U.S. government brought intense pressure to bear on allied governments to implement controls on key technologies their own companies produced. This was seen most clearly in the case of SME, where Dutch and Japanese producers were essential suppliers alongside U.S. companies. Both the first Trump and then the Biden administrations prioritized alignment of SME controls, with a mix of diplomatic cajoling and the threat (implied or otherwise) of U.S. extraterritorial controls should the allies not come along.³⁰⁶ This U.S. pressure resulted in important actions from the Dutch and the Japanese governments to implement aligned controls on SME.

In other cases, impacts were simply because companies from allied countries were caught in the crossfire. When the Biden administration rolled out its initial set of ecosystem controls in October 2022, for example, Taiwanese- and Korean-owned fabrication facilities in China were nearly forced to shut down or run the risk of being out of compliance. The U.S. government granted exemptions so that these facilities could remain operational, in part to address allied concerns and in part because taking these facilities abruptly offline would be highly disruptive to global chip supply.³⁰⁷ But the issue remains contested today, with the second Trump administration limiting the exceptions granted to these facilities and reportedly pushing the companies to wind down their China operations.³⁰⁸ Similarly, the AI diffusion rule had impacts far beyond China, as it created a worldwide licensing regime for the export of U.S. AI capabilities. In its initial version, even U.S. allies would have faced new limits on their ability to access AI computing resources, as an explicit goal of the policy was to retain a significant share of global computing power within the United States. (The second Trump administration was reviewing the AI diffusion rule at publication time.)

The United States has also invigorated its use of extraterritorial controls. FDPRs proliferated. What began as an isolated use case against Huawei became a standard part of Entity List additions involving Chinese entities, with dozens of new FDPR applications annually.³⁰⁹ Additional FDPRs were developed to extend the reach of new U.S. controls, making it against U.S. law to export advanced AI chips to China from anywhere in the world, so long as the chip was made using U.S. tools and software—which again, it was nearly impossible to do without. In an example that shows

the remarkable reach of the FDPRs, one rule went so far as to ban Taiwan Semiconductor Manufacturing Company (TSMC) from fabricating advanced AI chips designed by Chinese firms, making what otherwise would be a purely Taiwanese-Chinese commercial transaction into one that was prohibited by U.S. law.³¹⁰

When taken in its totality, the ecosystem method of denying technology to China has led the United States to set itself up as the global arbiter of advanced technology diffusion. The leading role of U.S. companies has enabled this, as many of the most critical chip and AI capabilities globally are still being developed by U.S. companies. But U.S. dominance is incomplete, as core capabilities remain outside the United States, including Taiwan's chip manufacturing dominance and Japanese and Dutch SME capabilities.³¹¹ While the United States has sought to degrade China's

The yard may have been small, but it contained all the most important technology.

technology ecosystems, it has been forced to contend with the fact that both the Chinese and U.S. ecosystems are global ones, both replete with dependencies on non-U.S. capabilities. In the face of allied reluctance to expand their own controls, U.S. policy has sought to cover the gap through extraterritorial tools. In this way, the ecosystem controls story resonates with other cases across the history of U.S. economic pressure. When faced with a strategic threat that requires leveraging assets outside of the United States, the United States will reach for extraterritorial policy tools if cooperation with allies is deemed insufficient to address the threat.

Despite the frustrations with allies, some progress had been made by the end of the Biden administration. The PRC's support of Russia following its invasion of Ukraine caused a substantial hardening of views in Europe.³¹² The United States was able to facilitate a growing dialogue around economic security issues in the G7, which had multiple drivers (e.g., supply chain security after the COVID pandemic, concerns about Russian economic coercion), but also had a clear if only indirectly implied counter-PRC aim.³¹³ Key allies in Europe and Asia took concrete actions to bolster their geoeconomic tool kits, such as the expansion of foreign investment screening in the EU and the passage of an economic security law in Japan.³¹⁴ But large gaps persisted, and the United States remained the most forward-leaning and capable partner when it came to technology denial efforts.³¹⁵

Did Ecosystem Controls Work?

The ecosystem controls on advanced chips and AI have arguably worked when measured against short-term, narrow metrics, though questions remain about their enforceability and long-term durability. Since 2020, when the ecosystem controls first rolled out with the Entity List addition of SMIC, China has been

unable to replicate the controlled technologies using homegrown sources.³¹⁶ Press reporting, for example, cites domestic efforts to develop a Chinese-made EUV machine.³¹⁷ The project reportedly relies on Chinese-born former employees of ASML and copious support from the PRC, along with Huawei, which would be a key customer and whose HiSilicon chip unit is a leader in the Chinese market. An optimistic estimate is that the prototype EUVs from this project could produce working chips by 2030, though the timeline for having a fully functional EUV machine that can make the most advanced chips at high quality and volume remains uncertain. Put differently, it would likely take over a decade for China to replace the procurement of ASML machines with a homegrown alternative. If the policy goal is to slow China's ability to make chips, a decade-long delay is nontrivial. And that assumes that China succeeds. In addition to the core technology, which is complicated enough, China would also have to replicate the massively complex supply chains of ASML, many of which rely on single source Western components.³¹⁸ These complexities are a large reason why only one company in the world has been able to pull off EUV technology so far.

While China has not replicated the most advanced denied technologies, its companies have proven adept at innovating around or within the constraints of the controls. A prominent example of this was the 2023 release of the Huawei Mate 60 Pro phone with a 7-nanometer (nm) 5G chip manufactured by SMIC, a development that should have been nearly impossible under the controls.³¹⁹ Similarly, in 2025 the Chinese AI firm DeepSeek released an AI model that seemed comparable to that of the leading U.S. AI labs. In both cases, the breakthroughs were likely a combination of Chinese innovation and continued access to some U.S. technology. In the Mate 60 Pro case, analysts assessed that stockpiles of equipment and the use of novel production methods on SME just below the control thresholds have enabled the production of the 7 nm chips, though likely with higher costs and lower efficiency, quality, and scale.³²⁰ Similarly, DeepSeek's breakthrough relied on access to powerful U.S. chips, including through gaps in U.S. regulations.³²¹ It may also have included controversial AI training techniques such as distillation, in which an AI model is trained using the output from a different model (in this case, an OpenAI model, in violation of OpenAI's policy).³²²

These examples do not indicate that export controls failed. In both cases, the counterfactual in which Chinese firms had direct, legal access to Western technologies would likely have led to quicker advances.³²³ But they do highlight that capable Chinese competitors will continue to find ways to maintain access to Western technologies where possible and innovate around constraints when direct access is denied. They also reiterate a lesson from the strategic trade controls era: Complete denial of technologies is practically impossible and a more realistic, yet still worthy, goal is to impose costs and time delays on indigenous development.

A central debate over the effectiveness of the U.S. controls is whether they have in fact delayed China's indigenous development, or whether the controls instead have super-charged existing incentives toward indigenization. Supporters of the controls argued that the PRC was already fully committed to indigenization, as evident in initiatives such as Made in China 2025, which aimed for Chinese dominance in critical technology sectors, and the corresponding state support for these industries.³²⁴ Others argued that private Chinese firms still preferred to use the more capable U.S. technologies as they competed to gain traction in China's cutthroat domestic market and to grow into international markets.³²⁵ The controls eliminate the choice of these private firms and introduce new risks associated with the reliability of U.S. suppliers, which were either already subject to controls or would likely be in the

Capable Chinese competitors will continue to find ways to maintain access to Western technologies where possible and innovate around constraints when direct access is denied.

future.³²⁶ Indigenization is now a commercial imperative, as well as a political one. The PRC has reinforced the importance of indigenization by adopting stricter measures on the use of foreign technologies in the domestic Chinese market.³²⁷ Notably, the PRC leaned into these efforts even after the second Trump administration eased controls on certain advanced AI chip exports. While the U.S. administration wanted to keep China "addicted" to U.S. technology, the PRC was intent on weaning itself off.³²⁸

With restrictions on both the PRC and U.S. government sides, Chinese commercial firms have stronger incentives to experiment with indigenous suppliers. Industry experts have expressed concern that Chinese firms will gain new capabilities through "learning by doing."³²⁹ Designing and fabricating chips requires close interaction between different functions along the chip production chain, with foundries, tooling companies, designers, and software companies collaborating closely on the intricate process required to bring a new chip to market. As indigenous Chinese tooling and software companies enjoy more opportunities to be pulled into the value chain, they could benefit from this iterative co-production process. Anecdotally, industry sources have noted a surge in new Chinese firms seeking to enter the chokepoint markets of tooling and software design.³³⁰ Similarly, as NVIDIA or other Western AI chips become more scarce, domestic suppliers, including Huawei, will likely fill the void to provide AI chips to compute-hungry AI companies in the China market.

Crucially, this displacement of U.S. suppliers may occur even in the lagging edge sectors that are not subject to U.S. controls

and where U.S. industry relies on continued sales to China for large chunks of their revenue. The Semiconductor Industry Association estimates that China accounts for nearly a third of all revenue for the sector.³³¹ Critics of the controls have argued that advancing Chinese capabilities across all levels of the chip ecosystem could lead to a “death spiral,” in which U.S. firms lose crucial Chinese revenue and can no longer make the R&D investments necessary to remain on the cutting edge.³³² Indeed, the logic of the traditional “run faster” strategy was exactly that: Sales to China would be an accelerator for U.S. competitiveness if it meant more money for R&D. However, when China takes its own actions to suppress sales of U.S. chips, continued reliance on China for revenue may become more of a vulnerability than an opportunity. Additionally, an initial analysis of the impact of the controls on impacted firms shows that R&D expenditures have remained robust, in large part due to the explosion of market interest in AI capabilities globally.³³³ Nonetheless, displacement of U.S. firms and lost revenue streams are an area for U.S. policy-makers to watch as they assess long-term impacts of the controls.

Enforcement Gaps

Without denying the innovative capacity of Chinese firms, it is likely that illicit shipments of chips have undermined the effectiveness of the U.S. ecosystem controls. Investigative reports have highlighted ongoing chip smuggling through complex networks of suppliers and shell companies in the United States and abroad.³³⁴ U.S. law enforcement has taken aim at the smuggling, including through prosecutions.³³⁵ However, the incentives for continued smuggling are hefty, as U.S. chips continue to outperform Chinese alternatives and the black-market value of illicit shipments often runs into the hundreds of millions of dollars or more.³³⁶ NVIDIA, as the leading producer of advanced AI chips, has responded to these reports noting that access to its chips on the secondary or black market is less useful, as it comes without important service support from the company. They also state that they are in full compliance with their export control compliance obligations.³³⁷

Perhaps more worrying were reports in 2024 that TSMC was continuing to produce chips for Huawei in potential violation of the U.S. controls.³³⁸ (TSMC denied the allegations.³³⁹) It is hard to overstate how critical compliance at TSMC is for U.S. policy objectives. TSMC is the only company in the world that can produce cutting-edge AI chips, and its compliance with U.S. export controls is essential to construct an effective chokepoint to stop advanced AI chips from flowing to China. Yet, taking enforcement actions against TSMC would be a precarious endeavor, given overall U.S. reliance on the company’s fabrication capabilities and that the United States is actively working with TSMC to build cutting-edge facilities in the United States.³⁴⁰ Instead, the Biden administration issued a new set of regulations aimed at strengthening due diligence requirements at foundries,

seeking to address the underlying compliance practices that may have led to the violations and giving the government a stronger oversight role.³⁴¹

Other enforcement concerns have emerged. U.S. tooling companies and design firms, also key actors in constructing a chip chokepoint, have been charged with export control violations.³⁴² The Bureau of Industry and Security (BIS) issued the largest stand-alone administrative fine in its history in a settlement with a company it accused of violating the export control restrictions on Huawei.³⁴³ Weaknesses in the Entity List, which used to be seen as an all-powerful control instrument, have

These persistent challenges with compliance and enforcement call into question the overall effectiveness of the ecosystem controls approach, not because it was faulty in theory but because it has been difficult to implement in practice.

become apparent. Specifically, the Entity List does not automatically capture subsidiaries and affiliates of a listed entity, unlike U.S. financial sanctions, which apply a 50 percent rule to automatically include any entity which shares 50 percent or more ownership with a listed entity.³⁴⁴ This meant that a listed company might have a subsidiary that could legally receive critical technologies, heightening the risk of diversion. The second Trump administration attempted to address this gap by applying a 50 percent rule to the Entity List, but it has paused implementation as part of ongoing negotiations with the PRC.³⁴⁵

Meager resources for BIS have aggravated the enforcement problems.³⁴⁶ As one analyst noted, just one illicit shipment of advanced AI chips was often worth more than double BIS’s annual enforcement budget.³⁴⁷ The ecosystem controls were also being implemented while the United States was simultaneously waging an export controls campaign against Russia after its invasion of Ukraine.³⁴⁸ A senior BIS official explained the strain on agency resources: “We spend 100 percent of our time on Russia sanctions, another 100 percent on China and the other 100 percent on everything else.”³⁴⁹ Despite the expanded mandate and more central role of BIS to U.S. foreign policy and national security goals, its budget remained largely flat for years.³⁵⁰ These persistent challenges with compliance and enforcement call into question the overall effectiveness of the ecosystem controls approach, not because it was faulty in theory but because it has been difficult to implement in practice.

Future of Ecosystem Controls

The return of the second Trump administration could have led to a continuation of the ecosystem controls strategy. After all, it was the first Trump administration that pioneered this approach.

But export control policy has witnessed more disruption than continuity since President Trump’s return to office. Most notably, the administration has eased controls on advanced AI chips.³⁵¹ This represents a flawed assumption that the United States can return to a “run faster” strategy and compete to build out sensitive AI infrastructure in China.³⁵² It also dangerously downplays the security risks inherent in supporting China’s efforts to build cutting-edge AI capabilities, while confusing allies who had been poised to align more closely with U.S. efforts but now question what the real U.S. strategy is regarding the PRC.³⁵³

At the same time, the PRC has become a more capable and assertive geoeconomic sparring partner for the United States. The PRC previously exercised restraint when responding to new U.S. export control actions, while deliberately building out its own economic statecraft tool kit. For example, the PRC developed its own Unreliable Entities List in response to U.S. Entity List actions but initially invoked it infrequently.³⁵⁴ Today, however, the PRC shows a clear willingness and intent to retaliate sharply for U.S. actions, whether those are export control measures or other actions, such as tariffs. Its hardened posture was evident in the rare-earth controls it imposed in the fall of 2025, which threatened to cut off global supply of this critical input for goods ranging from consumer goods to fighter jets.³⁵⁵ The PRC action was retaliation for a U.S. announcement that it was changing its Entity List process to adopt a 50 percent affiliate rule similar to that used in financial sanctions, a change that could have swept in more than 20,000 Chinese entities.³⁵⁶ The United States was forced to pause its export control action as it sought a reprieve from the PRC rare-earth controls.

The rare-earth example highlights the difficulty of pursuing a wide-ranging technology denial strategy in the context of a target country that enjoys its own points of economic leverage. And China has substantial leverage, including in the critical chip sector, if one looks not just at advanced chips but also considers the full value chain, including mainstream chips, chip packaging, and the final assembly of chips into finished electronic goods—all areas that China dominates and that would create strategic impacts if the United States were cut off from Chinese supply.³⁵⁷ This implies that an all-out economic war would not necessarily land in the U.S. favor and that future technology denial efforts may have a better chance at durability if they are designed to remain under the threshold that would spark a strong PRC response.

Russia Export Controls (2022–Present)

The 2022 Russian invasion of Ukraine led to a new phase of the long-standing U.S. technology denial efforts toward Russia. U.S. control policy toward Russia has never been permissive. Its history includes the strategic trade controls that were targeted primarily at the Soviet bloc during the Cold War, the maintenance of a long-standing arms embargo, and the ratcheting up



of controls related to future oil and gas production after Russia’s 2014 annexation of Crimea. The controls imposed by the United States and the sanctions coalition in 2022 built on this foundation, denying the export of a broader range of less sensitive dual-use goods and banning nearly all exports to military end users (with the exceptions of food and medicine).³⁵⁸ They also vastly expanded the use of F DPRs, which at the time had been used only in the Huawei context, with the most potential impact in the chip sector. Over the subsequent years, the U.S. government would add 1,070 entities to the Entity List for support of the Russian military campaign, including a sustained effort to target smuggling networks attempting to evade the controls.³⁵⁹

Worthy Goals, but Few Chokepoints

The export controls campaign against Russia demonstrated that the United States and allies can move quickly and aggressively when conditions merit it. U.S. export controls were implemented in lockstep with the EU and the G7, with packages of new controls often aligned on both substance and timing.³⁶⁰ Notably, all of the new controls were implemented outside of the standing export control regime processes, highlighting the limits of a system that did not enable country-specific controls.³⁶¹ The controls also demonstrated that key U.S. allies could take extraordinary measures within their own legal frameworks, as many found creative ways to impose controls or expand their export control legal authorities. The shared assessment that Russian aggression posed an existential threat to European security was a driver for this urgency and bureaucratic creativity.

Despite the impressive coordination among allies, the export controls on Russia have largely not met their objective, which was to deny Russia the technology necessary to sustain its military campaign against Ukraine.³⁶² An examination of Russian weaponry found on the Ukrainian battlefield showed the prevalence of Western microelectronics, highlighting the difficulty in implementing in practice what the controls were attempting to do on paper.³⁶³ Russia's proficient evasion networks were part of the challenge, but just as problematic was the diffuse nature of microelectronic supply chains.³⁶⁴ Chips, including ones that previously had not been controlled for export to Russia, were traded widely through multilayered distribution networks, meaning that the original manufacturers did not have full visibility into the ultimate end use of their products.³⁶⁵ Neither the U.S. government nor Western producers had full insight into or control over the chip distribution networks.

In response to criticism, the chip companies have argued that they also do not want their products ending up on the Ukrainian battlefield and that they are fully complying with their export control obligations.³⁶⁶ This raises the question of whether the legal liability for compliance is far-reaching enough, as well as whether the U.S. government is capable of exercising sufficient oversight of company practices to incentivize robust compliance. U.S. companies have an obligation to not sell to entities that are likely to divert technology, but how they implement their compliance programs is mostly left to their own discretion.³⁶⁷ A congressional investigation highlighted the lack of internal audit programs and poor visibility into distribution partner compliance efforts as key gaps in private sector efforts.³⁶⁸ The investigation also criticized BIS for outsourcing compliance to the private sector, arguing for intensified government oversight of private sector compliance efforts. However, even strengthened compliance with existing obligations may not be enough if companies are liable for conducting due diligence only at the point of sale rather than through the final end use of their product. The EU has sought to tackle similar issues by requiring companies to insert "no re-export to Russia" clauses in their contracts.³⁶⁹

Russia has also benefited from substantial support from Iran, China, and other countries opposed to the Western sanctions and export controls effort.³⁷⁰ These countries have been important sources of dual-use goods, including microelectronics as well as the drones that have enabled new battlefield tactics, many of which Russia has historically struggled to produce domestically.³⁷¹ China is a key supplier of the microelectronics used by Russia on the battlefield, either from its own production or diversion of U.S. chips that pass legally through the China market as part of a broader distribution network.³⁷² The United States has taken actions to target specific Chinese entities believed to be engaging in export control evasion, including listing 164 on the Entity List and 296 on the SDN list.³⁷³

The role of the PRC and Iran as prominent suppliers means that the United States never had a real chokehold over the supply of certain critical goods.

However, the United States has appeared unwilling to take broader enforcement actions against the PRC, despite an assessment of some Biden-era officials that the PRC was engaging in systematic support of the Russian war effort through continued trade in critical dual-use goods.³⁷⁴ An uncomfortable truce seems to have taken hold in which the PRC largely refrains from providing lethal aid to Russia (a red line that was drawn early on by U.S. officials) but facilitates trade right up to that line without facing severe consequences from U.S. sanctions.³⁷⁵ The implications for this are troubling if Beijing views the lack of a U.S. response not as strategic restraint but instead as U.S. reluctance to truly enforce its technology denial measures. The second Trump administration appears to have deprioritized enforcement of the Russia export controls, having implemented only five Entity List additions and 55 SDN designations in this area through the end of 2025.³⁷⁶

The coordinated export controls on Russia started with high ambition and unprecedentedly strong coordination among allies. Yet, the combination of widely available and difficult to trace products and gaps in private sector compliance efforts meant that global chip supply may be inherently uncontrollable. Most fatally, the role of the PRC and, to a lesser extent, Iran as prominent suppliers and evasion supporters means that the United States never had a real chokehold over the supply of certain critical goods. The legal expansion of controls could not overcome these real-world dynamics, particularly when the United States was politically unwilling to escalate against geopolitically sensitive targets, namely the PRC.

Lessons Learned from Technology Denial Operations

Technology denial efforts are different from other types of economic pressure campaigns. Their main objective is one of constraint, seeking to shape the options available to the target country by denying access to technologies of national security relevance over a sustained period. These characteristics mean that certain factors often associated with successful economic pressure operations are less salient for technology denial efforts.

Military force has not been in the mix. Armed intervention in support of long-term technology competition goals would be far outside established international law and norms. The Cold War strategic trade controls efforts were designed explicitly to be measures short of war, as the nuclear-armed superpowers jostled for geopolitical advantage. Today's technology denial efforts have similar traits, as the restrictions are not paired with the threat or use of military force.

Overall Technology Denial Effectiveness

	Strategic Trade Controls	Chinese Telecommunications Restrictions	AI and Chip Ecosystem Controls	Russia Export Controls
Overall Foreign Policy Success Rating	⊖	⊖	✓	✗
	Mixed	Mixed	Success	Failure
Criteria of Economic Pressure				
Strategic Context				
Clear articulation of realistic goals	●	●	●	●
Backed by military force	●	●	●	●
Operational Construction				
Effective chokepoint	●	●	●	●
Reversibility	●	●	●	●
Impact on political incentives	●	●	●	●
Allied alignment	●	●	●	●
Nonallied participation	●	●	●	●
Implementation	●	●	●	●
Durability				
International legitimacy	●	●	●	●
Sustainability for U.S. economy	●	●	●	●
Systemic effects	●	●	●	●

Reversibility has also been less relevant for technology denial operations. There has been no expectation that the target country would stop pursuing military advantage because of the controls, and correspondingly the United States has not linked behavioral change to the possibility of easing controls. Similarly, crafting measures with an eye toward influencing the target’s political incentives has not been a priority, as the technology denial campaigns do not rely on positive changes in these incentive structures to achieve their stated goals. Until recently, the U.S. position has been that export controls and related restrictions are necessary for U.S. national security interests and are strictly nonnegotiable. While the second Trump administration is more open to negotiation than prior administrations, the reversals of controls to date have mostly been unilateral U.S. decisions driven by domestic stakeholder considerations rather than tied to demonstrable changes in PRC behavior.

For other criteria, technology denial operations have much in common with other types of economic pressure efforts. The most critical factor for an effective technology denial operation has been the identification of a true chokepoint, ideally one that is predominantly within U.S. control. The restrictions on the Chinese telecommunications companies and the AI and chip ecosystem controls have bite because they were built around technologies that U.S. companies dominated or had a large share of the global market. The U.S. chokepoint was extended through targeted efforts coordinated with the small number of other

global producers that easily could backfill for U.S. capabilities. In contrast, the controls on Russia were doomed because they sought to control a much wider array of technologies, many of which traversed supply chains in China or were widely available on global markets. Similarly, the Cold War strategic controls were a mess of allied coordination because the United States enjoyed true dominance in only a small handful of technologies that warranted control.

The role of allies has also proven to be highly controversial in technology denial operations. Consistently, the United States has been the most aggressive advocate for more controls, driven by heightened assessments of the strategic risk presented by target countries, lower reliance on exports for economic growth gener-

Extraterritorial measures can be tolerated when broader strategic alignment with allies exists, but in the absence of that alignment, extraterritorial measures are most likely to inflame relations and eventually be discarded.

ally, and the unique role that the United States plays in providing international security. Where strategic assessments aligned, mechanisms such as CoCom or U.S.-European coordination groups during the Russia sanctions and export controls campaign,

could be effective in facilitating joint actions. But such mechanisms have not been able to build consensus where it did not already exist.

In instances of allied disagreement, the United States has often reached for extraterritorial measures as a sub-optimal yet necessary step to address an otherwise unresolved strategic risk. Throughout the strategic trade controls era, extraterritorial measures were universally met with outrage and resistance from U.S. allies, followed by a consistent pattern of U.S. retreat to preserve

The risks of an overly permissive control policy are heightened when the target country can make good use of the technologies to build up its own indigenous capabilities, as China has clearly demonstrated it can.

diplomatic relations. This dynamic has shifted in more recent efforts. The Huawei case saw the emergence of the FDPR as a precedent-setting instance of extraterritorial export controls. On the Russia export controls, U.S. extraterritorial measures were part of a broader, coordinated campaign and were not contested by allies, so long as allies received exemptions from the application of such controls within their jurisdiction. On the AI and chip ecosystem controls, key allies eventually came to accept the strategic rationale for the overall program, including imposing some of their own aligned measures, making the extraterritorial aspects of the controls less provocative. The key

distinction has been that extraterritorial measures can be tolerated when broader strategic alignment with allies exists, but in the absence of that alignment, extraterritorial measures are most likely to inflame relations and eventually be discarded.

If technology denial efforts have had vulnerabilities, it is in the long-term durability of such efforts. Weak enforcement has presented issues in each technology denial campaign assessed, indicating the need for substantially higher resources and enforcement capabilities over a sustained period to counteract the inevitable defections, violations, and circumvention. A lack of domestic support for technology denial operations has also undercut political viability, as impacted companies have almost always lobbied for fewer controls.

Finally, the adaptability of the target has been critical. The Soviet Union was quite good at stealing Western technologies, but less adept at spinning those technologies into a domestic industrial base capable of leapfrogging the United States.³⁷⁷ China's domestic innovation capabilities present a dramatically different case, and the acceleration of its indigenous innovation efforts remains an important question mark over the success of U.S. technology denial efforts. China's economic model is fundamentally different than Russia's, and it has shown a remarkable ability to spin-in foreign technologies and use them to build a homegrown technology base that can dominate global markets. The risks of an overly permissive control policy are heightened when the target country can make good use of the technologies to build up its own indigenous capabilities, as China has clearly demonstrated it can.

Chapter 4: Trade Coercion Cases

Over the past decade, the United States has introduced tariffs as a new mechanism in its economic pressure tool kit. Historically, tariffs were used predominantly to manage international trade. Punitive or coercive tariffs, to the extent that any such thing existed, were confined to a tightly proscribed system of formal trade dispute settlement procedures. This all changed when President Trump launched a trade war with the PRC during his first administration, imposing an unprecedented series of high tariffs to force the PRC to change what the United States saw as deeply unfair trade practices. In his second administration, President Trump dramatically expanded the use of trade coercion, both for the PRC and globally. Trade coercion became the instrument of choice to deal with not just trade issues, but an expanding range of geopolitical and security disagreements with foreign governments.

Trump's trade coercion differs in important ways from other established means of economic pressure. Unlike economic pressure tools such as sanctions, tariffs do not ban trade. Instead, tariffs impose a tax on the import of a good into the United States and disincentivizes the purchase of that good through higher prices. (That taxation is a power constitutionally reserved for Congress is one of the reasons that tariffs historically have not been used as a coercive instrument for U.S. foreign policy purposes.) As practiced by Trump, trade coercion is not narrowly targeted. Instead, it applies economic pressure broadly on a country through the application of tariffs on either all imports from that country or on highly significant sectors, and oftentimes both. In its breadth, Trump's trade coercion resembles old school embargoes more than it does more recent sanctions efforts that seek to concentrate pressure on high value targets or individuals within a country.

Another important distinction between Trump's trade coercion and established U.S. coercive economic statecraft practice is in its choice of targets. The use of trade coercion against close U.S. allies is unlike any other economic pressure campaign the United States has conducted. While secondary sanctions and other extraterritorial measures that impact allies have been imposed throughout U.S. sanctions history, the allies themselves were never the target. Instead, the United States sought to compel allied alignment against a shared external threat. In the case of the Trump trade coercion, allies often are being treated as the threat.

The Trump trade coercion campaign is global in nature. This section examines in greater detail the trade coercion efforts against the PRC in the first and second Trump administrations, and then turns to the ongoing trade coercion in the North America and transatlantic contexts. The primary focus of the analysis is on elements of coercion, or whether the use

Terminology of U.S. Tariffs Introduced Under the Second Trump Administration

Reciprocal tariffs: Reciprocal tariffs are intended to rebalance bilateral trade deficits, both by directly decreasing U.S. imports and by gaining leverage to pressure foreign governments to lower their own tariff and nontariff barriers. Reciprocal tariffs may vary by country.

Universal baseline tariffs: A universal baseline tariff is applied to all countries and is intended to generate revenue for the U.S. government or to address the overall U.S. trade deficit.

Coercive tariffs: Coercive tariffs are intended to compel a foreign government to take an action desired by the United States.

Product-specific tariffs: Product-specific tariffs are intended to support the domestic production of critical goods. They are applied to specific product categories, and they can apply to imports of these products from all sources or can be limited to imports from designated countries.

Liberation Day tariffs: Liberation Day tariffs refer to the reciprocal tariffs and the universal baseline tariff announced by President Trump on April 2, 2025, a day he deemed "Liberation Day."

of punishing tariffs has induced changes in the behavior of the foreign countries targeted. The economic impact of the tariffs on the United States may well be substantial, but for the narrow purposes of this analysis, these economic impacts are considered only as they relate to the durability of the U.S. coercive campaign.

China Trade Coercion (2018–Present)

The first Trump administration's trade war against the PRC set important precedents, including demonstrating the political viability of high tariffs on China and establishing new ways to manage trade-related disputes. While these efforts may have yielded little in the way of improvements in the PRC's trade practices, they did prompt private sector supply chain shifts that were broadly aligned with the administration's goals and were largely maintained by the Biden administration. The second Trump administration, however, has not fared as well, as extreme tariff escalation has sparked intense PRC retaliation that the United States has been unable to easily manage. The U.S.-PRC trade wars are far from over, but the balance of coercive leverage has clearly been reset—and not in America's favor.

China Trade Coercion		
	2018-2025	2025-present
Overall Foreign Policy Success Rating	⊖	⊗
	Mixed	Failure
Criteria of Economic Pressure		
Strategic Context		
Clear articulation of realistic goals	●	●
Backed by military force	●	●
Operational Construction		
Effective chokepoint	●	●
Reversibility	●	●
Impact on political incentives	●	●
Allied alignment	●	●
Nonallied participation	●	●
Implementation	●	●
Durability		
International legitimacy	●	●
Sustainability for U.S. economy	●	●
Systemic effects	●	●

Precedent of the First U.S.-PRC Trade War

The Trump approach to trade coercion was initially unveiled during his first administration’s trade war with the PRC. The administration imposed what were, at the time, unprecedented tariffs on China, after conducting a lengthy investigation into the PRC’s unfair trade practices under Section 301 authorities (referring to Section 301 of the 1974 Trade Act).³⁷⁸ Through four escalating rounds, tariffs of 7.5 to 25 percent were imposed on a broad set of Chinese exports to the United States, impacting over \$350 billion in traded goods and covering 50 percent of the bilateral trade.³⁷⁹ The PRC retaliated with tariffs approximately one-third the scale of the U.S. tariffs, reflecting the fact that China imported less from the United States and therefore had less to target, though the Chinese tariffs were designed to impact politically sensitive sectors.³⁸⁰

The tariff escalation was ultimately brought to an end through a negotiated process, which culminated in the lengthy and highly technical “Economic and Trade Agreement Between the Government of the United States of America and the Government of the People’s Republic of China,” known informally as the “Phase One Agreement.”³⁸¹ The PRC agreed to a range of commitments intended to address long-standing U.S. concerns over its unfair trade practices, including traditional trade issues such as fair access to the Chinese market for U.S. firms. Novel commitments were also included, primarily a PRC commitment to purchase specified amounts of U.S. goods to reduce the U.S. trade deficit with China, a priority for President Trump.

The U.S.-PRC tariff escalation was a trade war on steroids, but it was nonetheless a dispute predominantly about trade. The stated U.S. concerns were clearly economic in nature, with any security justification as secondary. Many of the trade issues raised in the 301 process were ones that U.S. trade officials had been worried about for years, dating back to the time of the PRC’s accession to the World Trade Organization (WTO) in 2001.³⁸² The U.S. actions clearly showed that the tariffs were intended to “obtain elimination of China’s harmful acts” and that there would be tariff relief if the PRC made progress on the disputed trade policies.³⁸³ Notably, the final round of proposed tariffs was reduced substantially once the United States and the PRC reached the Phase One deal.³⁸⁴ The bulk of tariffs remained, reflecting that not all U.S. demands had been met yet. But as the moniker suggests, the Phase One deal was seen as a first step, with the possibility of additional negotiations leading to further tariff reductions.³⁸⁵

While the scope was aggressive, the 301 tariffs had some conceptual grounding in traditional trade dispute practices. In the WTO or other formal legal trade structures, a country can bring a complaint to an independent panel for assessment, and remedies—rather than compelling a country to remove an offending measure—instead are in the form of retaliatory tariffs. The possibility of tariff retaliation was intended to serve as a strong incentive for countries to abide by their trade commitments. The Trump administration extrapolated this logic of tariff retaliation to its efforts to force the PRC to comply with their trade obligations and otherwise commit to fair trade.

There were, however, key differences in the Trump approach to tariff retaliation, including that all the U.S. tariffs were imposed entirely outside of existing trade systems. When Trump came into office, the United States did not have a bilateral trade agreement with the PRC, which meant that WTO rules governed much of the bilateral trade and any disputes should have been routed, in theory, through WTO processes.

The U.S.-PRC trade wars are far from over, but the balance of coercive leverage has clearly been reset—and not in America’s favor.

Instead, and reflecting broader frustration with a WTO process that it viewed as utterly failing to constrain PRC unfair trade practices, the Trump administration imposed tariffs using domestic trade authorities.³⁸⁶ Also, in the Phase One Agreement, the United States and the PRC established a novel dispute settlement process that was purely political, rather than technocratic or rules-based.³⁸⁷ Instead of submitting disputes to an independent panel for adjudication, as was the norm, disputes would be settled by senior officials, and new tariffs could be

unilaterally imposed by either side if they could not reach agreement.³⁸⁸ In other words, the stage was set for future tariff battles, and these would be based on each side's assessment of how forcefully they could coerce the other through tariff threats. By shifting decisively away from a neutral rules-based approach to trade and toward a strategy grounded in power politics, the Phase One Agreement can now be seen as a harbinger of things to come with the second Trump administration's extensive use of trade leverage as a leading instrument of geopolitical competition.

The Trump approach to trade was different than its predecessors, but it is not clear that it was more effective at changing PRC behaviors. Economists tracking the trade data found that the PRC had failed to live up to its promises to buy billions of dollars of U.S. goods, though the data may be complicated by broader trade distortions from the COVID pandemic that hit shortly after the agreement was signed.³⁸⁹ There is little evidence to suggest that the PRC made good on the harder, structural commitments dealing with its unfair trade practices, or at least at a level sufficient to truly level the playing field. A 2024 review by the subsequent Biden administration found that, while the PRC had altered some of its unfair trade practices in response to 301 tariff pressure, these changes were "superficial" and "do not represent a systematic and sustained response to the issues raised."³⁹⁰

While Trump's 301 tariffs may not have led to durable changes in PRC behavior, they nonetheless proved to be durable politically in the United States. The Biden administration maintained all of the 301 tariffs, while adding additional ones geared at its sectoral priorities, including semiconductors and electric vehicles.³⁹¹ In contrast to the dire economic predictions when the tariffs were initially imposed, the Biden administration stated that the negative impacts of the tariffs on general economic welfare, prices, and employment were minimal.³⁹² It also found that tariffs had supported supply chain diversification goals by reducing certain imports from China.³⁹³ In an important strategic difference, the Biden administration was more skeptical about forcing changes in PRC behavior.³⁹⁴ Rather than using additional tariffs to create leverage for negotiations, it deployed tariffs defensively to protect domestic sectors that they sought to build up via renewed industrial policy efforts, reverting back to a more traditional protectionist stance.³⁹⁵ Nonetheless, the lesson learned by policymakers across partisan lines was that high tariffs on China were both politically viable and economically sustainable.

Escalation Under Trump 2.0

Upon his return to the White House in 2025, President Trump attempted to run the same tariff playbook but quickly encountered stiffer than expected resistance from the PRC. China was among the group of countries, along with Mexico and Canada, that Trump imposed tariffs on to coerce their governments into taking stronger actions to combat flows of fentanyl coming into the United States, with tariff rates of 10 to 20 percent on Chinese

imports starting in February 2025.³⁹⁶ China also received a high rate under the reciprocal tariff program announced on so-called "Liberation Day" in April 2025, which tacked on an additional 34 percent tariff on top of existing rates.³⁹⁷ Chinese goods, such as steel, were impacted by the product-specific tariffs imposed under national security authorities (i.e., the tariffs imposed or contemplated under the authority of Section 232 of the Trade Expansion Act of 1964, or "Section 232" tariffs).³⁹⁸ In sum, these tariff actions, which were imposed for a wide range of policy reasons, led China to have the highest effective tariff rate of all major U.S. trading partners by a wide margin.³⁹⁹

The PRC response to the U.S. tariffs was unyielding. While Canada and Mexico took high-profile actions to demonstrate their commitment to working with the United States on fentanyl, the PRC did not move immediately. The PRC would have been aware of the importance of the fentanyl issue to the United States, having worked with previous administrations to stem the flow of fentanyl precursors from China and combat money laundering that supported the illicit trade.⁴⁰⁰ Indeed, the tariffs were not the first time coercive measures were taken against China for fentanyl reasons, though previous U.S. efforts had used financial sanctions rather than tariffs.⁴⁰¹ Additionally, the Trump administration had consistently highlighted the opioid crisis in America as a priority issue throughout the 2024 presidential campaign.⁴⁰² But the PRC, when faced with the likelihood of an onslaught of tariff measures early in the second Trump administration, appears to have made the calculation that an early cooperative move on fentanyl was unlikely to make a dent in the larger trade war brewing. Indeed, its response indicated that it viewed the fentanyl tariffs as the opening salvo of a trade war, issuing retaliatory tariffs on U.S. energy and agriculture exports to China, as well as imposing new export controls and other nontariff retaliation measures.⁴⁰³

The U.S.-PRC trade war escalated rapidly with the Liberation Day tariffs. The PRC imposed further retaliatory tariffs, the United States responded, and the tariff rates on both sides soon reached 125 to 145 percent, a level that would be prohibitive for most trade.⁴⁰⁴ Recognizing the unsustainability of extreme tariffs, the United States and the PRC engaged in a series of negotiations starting in summer 2025 that brought the tariff levels back to manageable, if still high, levels.⁴⁰⁵ However, tariffs were not the only sticking point, as both sides also had introduced export controls to strengthen their negotiating leverage, with U.S. controls on jet engines and chip design software and PRC controls on certain rare earths.⁴⁰⁶ Tensions peaked again in October 2025, when the PRC issued sweeping, global controls on rare earths in response to a U.S. export control action that significantly expanded the U.S. Entity List, an export control tool used to block foreign companies from receiving U.S. technologies and often used against Chinese entities.⁴⁰⁷ With its dominant position in global rare-earth supply, the PRC had the ability to cripple the U.S. and global economies, which rely on the supply of rare earths as inputs for a wide range

of commercial and military products.⁴⁰⁸ During the same period, Chinese purchases of U.S. soybeans had been halted, presenting the possibility of a devastating harvest season for American farmers without their largest customer.⁴⁰⁹ A summit between President Trump and General Secretary Xi in fall 2025 de-escalated tensions momentarily, facilitating a mutual walk-back of export control measures and the resumption of soybean sales.

The U.S.-PRC trade wars have seen a furious amount of activity, but little progress in addressing the range of stated U.S. policy concerns. The Trump-Xi summit in fall 2025 resulted in a lowering of the fentanyl tariffs in return for a pledge of PRC cooperation, a vague commitment that does not meaningfully advance joint counterfentanyl efforts beyond what existed in prior administrations.⁴¹⁰ Talks between the two sides otherwise focused on finding off-ramps for the tariffs and export controls each have lobbed at the other. Efforts to push the PRC to reform its state-driven economy, including the laundry list of concerns that was the basis of the 301 actions in the first Trump administration, were no longer on the agenda. There are indications that Trump officials misread PRC intentions and underestimated the possibility of harsh retaliation.⁴¹¹ The playbook from the first administration backfired when the PRC shifted to a more aggressive retaliatory stance than anticipated.

Resetting the Perception of Economic Leverage

Even if détente is achieved, the new geopolitical baseline for the United States is worse than it was at the start of the Trump administration. The newly demonstrated willingness of the PRC to wield its dominance over global rare-earth supply has fundamentally changed the balance of coercive leverage between the two sides. The U.S. decisions to walk back tariffs and export controls in the face of PRC pressure reflects not just Trump's tendency toward inconsistency, but also the necessity of avoiding the damage that the PRC's retaliation could wreak on the U.S. economy. The threat of PRC rare-earth retaliation had always been latent, but the aggressive Trump actions forced it out into the open. By doing so, the United States created a hard new constraint on its own ability to take coercive economic actions against the PRC in the future.

Importantly, this constraint may apply to both the ad hoc tariff hikes, which have limited strategic value, as well as to actions intended to strengthen the U.S. position in the long-term technology competition with the PRC, such as the ecosystem export controls on AI and chips. By introducing export controls into the negotiations, the Trump administration reversed the principled U.S. position of not negotiating over measures that it believed were in its national security interest.⁴¹² Indeed, Ambassador Robert Lighthizer, writing about negotiations in the first Trump administration, referred to PRC attempts to push the United States to soften export controls as “chutzpah” and “essentially asking us to weaken our own national security

procedures. This was unacceptable.”⁴¹³ But now that export controls have been deemed negotiable, the United States likely will face pressure to eliminate controls in future negotiations, making already contentious export control discussions with the PRC even more challenging for U.S. security interests. The negotiation over export controls also has sparked concerns in the U.S. national security community, reinforcing fears that President Trump may prioritize transactional diplomacy for commercial purposes over a principled stance to defend U.S. strategic interests.⁴¹⁴

The second Trump administration's coercive approach to the PRC is significantly broader than it was in the first administration. Tariffs are intended to achieve a more diverse range of policy goals, including the introduction of security objectives alongside traditional trade issues. This breadth is a major part of what hampers the U.S. ability to coerce the PRC.⁴¹⁵ When tariff leverage is applied broadly on an economy-wide basis for multiple different objectives, it becomes harder to offer specific tariff relief for any one goal. After all, there is little value in a 10 percent tariff reduction when the overall tariff rate is several times larger and the threat of future tariffs is unabated. Ironically, in this regard the PRC may now be in a stronger position than other countries, as its forceful retaliation imposes an upper bound on the U.S. ability to impose new tariffs, a more meaningful constraint than relying on any promise from President Trump to exercise restraint.

If tariffs have proven counterproductive from a coercive standpoint, they have succeeded in shifting U.S.-China trade patterns as the private sector adjusts to the high U.S. tariff wall. The large U.S. trade deficit with China, a persistent complaint of President Trump, shrunk by 22 percent in 2025.⁴¹⁶ This shift was clearly the result of trade diversion, rather than a change in the PRC's long-standing model of export-led economic growth. In January 2026, PRC data showed that the country was running the “world's largest trade surplus ever.”⁴¹⁷ As China's exports continue apace, the U.S. tariffs have routed them to third-party markets, which have seen an increase in their imports from China over the past several years, resulting in increased dependency on China trade in other major markets.⁴¹⁸ Unilateral tariffs have proven to be most effective at shifting the burden of Chinese exports, rather than addressing the underlying structural imbalance of China's trade with the world.

The threat of a flood of Chinese imports, along with rising concerns about the PRC among U.S. allies, could have presented an opening for the United States to work with other major economies on a coordinated approach to the PRC's economic practices. At the start of the administration, several U.S. allies put forth ideas for enhancing economic security coordination, with the belief that the second Trump term, like the first, would include a strong counter-PRC component.⁴¹⁹ However, the U.S. trade wars proved to have a global scope, and U.S. trading partners were quickly embroiled in their own intense trade negotiations with

the Trump administration. There has also been a strong hesitancy among allies to target the PRC at a time when the United States seems to be softening its stance as part of its overall negotiations with the PRC.⁴²⁰ The U.S. decision to pull back controls on the export of certain AI chips to China reinforced allied concerns about getting out ahead of U.S. policy on the PRC.⁴²¹ While the PRC’s rare-earth move sparked important coordination with allies, for the most part, the United States has had to go it alone in its trade war with the PRC.⁴²²

Global Trade Coercion (2025–Present)

The second Trump administration brought its coercive trade approach to its relations with nearly every country around the world, upending the existing global economic order and launching trade wars on multiple fronts. The results have been decidedly mixed, with some success in forcing trade concessions from other governments but also rising concerns about the long-term durability of these agreements and broader worries about the role that America seeks to play in the global economy.



Near-Term Wins

The global trade wars have encompassed a sweeping range of tariffs, targets, and policy objectives. They have included new tariffs imposed on the so-called “Liberation Day,” intended to reset the entire U.S. tariff structure to include a universal baseline tariff of 10 percent and additional rates for individual countries under the reciprocal tariff program. The Trump administration has argued that universal baseline tariffs are needed to address

the U.S. trade deficit and restore America’s manufacturing base.⁴²³ Reciprocal tariffs are intended to force other countries to address barriers to U.S. exports, ensuring that trade is fair and reciprocal. Countries also were hit with the product-specific Section 232 tariffs, which included critical sectors for major U.S.

The totality of those tariffs was a wholesale reset of the U.S. trading relationship with the world, conducted completely outside the bounds of existing international trade rules and architecture.

trade partners, including automobiles, steel and aluminum, and pharmaceuticals.⁴²⁴ The totality of those tariffs was a wholesale reset of the U.S. trading relationship with the world, conducted completely outside the bounds of existing international trade rules and architecture.

When trade coercion has been used to achieve trade-related aims, the Trump administration can claim some immediate success. During the presidential campaign, Trump promised to impose 10 to 20 percent tariffs on all countries. That has now largely been achieved, with little retaliation from other countries (with a few notable exceptions). In a sign of the coercive nature of the tariffs, their imposition sparked a race by foreign governments to negotiate with the United States, with several agreements of varying degrees of formality announced with a broad range of countries. These deals largely follow similar contours, with some reduction in U.S. tariffs offered in exchange for large commitments of investments in the United States, purchases of U.S. exports, and elimination of barriers to U.S. exports. It is not clear yet what impact the tariffs may have on the long-term economic health of the United States, but so far, by its own accounting, these are largely the trade results that the administration was looking for.

Long-Term Fragility

The durability of the trade wins is highly uncertain, however.⁴²⁵ The trade deals themselves are fragile, as they are mostly lopsided agreements that force concessions from the trading partner without a commitment from the United States to refrain from future tariff threats. Certain agreements have resulted in formal negotiated text of an Agreement on Reciprocal Trade (ART), including with Malaysia, Cambodia, El Salvador, Guatemala, Argentina, Bangladesh, and Taiwan.⁴²⁶ The ARTs are detailed and technical, and in some respects resemble the traditional nitty gritty work of trade negotiators to eliminate specific trade irritants. Innovative and productive commitments, including on pressing issues such as labor, environment, and economic security, have been included, which is a positive sign. When considered holistically, however, these are strikingly unbalanced agreements, in that they are not negotiated as win-win outcomes

for both partners but instead represent a documentation of what the foreign trading partners conceded as a means to blunt the threat of U.S. trade coercion and stabilize relations. They also provide no relief to the trading partners in terms of safety from future tariff threats.

For other deals with major trading partners, such as Japan, the agreements are political and informal, without the release of detailed text, leading to immediate disagreements over what exactly was agreed upon.⁴²⁷ For example, as part of its political trade deal with the United States, Japan committed to \$550 billion in investments in the United States, including unusual arrangements for profit-sharing with the United States.⁴²⁸ Questions immediately arose about the commercial viability of the investment plans. In early 2026, Japan announced its first set of investments under the agreement, in an effort to maintain good relations in advance of a summit between Trump and newly elected Japanese Prime Minister Sanae Takaichi. This progress notwithstanding, the projects are understood to be “strategic but less than bankable,” indicating that they are driven mostly by political rather than commercial motivations.⁴²⁹ Similar concerns hang over the investment commitments made by other trading partners, where announcements of large investment promises have been important political signals but may be untethered from normal economic considerations.

For both the ARTs and the political trade deals, implementation remains uncertain. In the event of a disagreement, the likely result is additional tariffs from the United States as there are no other enforcement mechanisms contemplated. For example, President Trump has threatened tariffs on South Korea for not moving quickly enough with its investment commitments.⁴³⁰ Continual tariff threats undermine the value of the agreements, which are intended to stabilize trading relations. Additionally, the ARTs include commitments from trading partners that are novel and may be difficult for partners to implement. For example, commitments to align with U.S. export control or investment screening policy are important measures on the counter-PRC agenda. But most partners have weak institutional capacity for economic security programs and may struggle to accommodate U.S. requests to implement specific economic security measures, absent a broader cooperative effort to strengthen their capacity. The sheer number of agreements has also led to bandwidth issues, as U.S. negotiators juggle multiple, complex negotiations at once. Given these dynamics, implementation seems likely to present continued challenges for the overall effectiveness of the trade coercion efforts.

While the trade wars have had some notional success when addressing trade issues, the record is decidedly more mixed for other areas. The administration has issued ad hoc tariffs or tariff threats for a range of security or political reasons, such as on Colombia (related to deported migrants) and Brazil (related to the prosecution of former Brazilian President Jair Bolsonaro). It has developed the novel tool of secondary tariffs to punish

National leaders have been strongly motivated to push back on, rather than accommodate, the United States when trade coercion has had noneconomic aims.

countries engaged in energy trade with Russia and Iran.⁴³¹ These largely have not succeeded. Brazil’s President Luiz Inácio Lula da Silva, supported by immense domestic resistance to U.S. tariffs, has fended off the U.S. coercion and secured the rollback of tariffs on Brazilian coffee and other key agricultural goods.⁴³² Secondary tariffs on purchasers of Iranian or Russian oil will lack a punch unless the administration is willing to target China as a major buyer, which to date it has not been. At the same time, India, which was the only country hit with the secondary tariffs, secured a trade deal and elimination of the secondary tariffs after a difficult negotiation that blended trade and security issues, though the exact nature of India’s commitment to reduce purchases of Russian energy remains ambiguous.⁴³³ As explored further in the North American and transatlantic cases, national leaders have been strongly motivated to push back on, rather than accommodate, the United States when trade coercion has had noneconomic aims.⁴³⁴

The state of the global trade wars remains fluid. Initial successes in negotiating technical or political deals may lead to trade stability but are just as likely to be upset by implementation challenges or unabated tariff threats from the U.S. president. The Supreme Court decision ruling that emergency powers–based tariffs are unlawful injects additional uncertainty, though the administration quickly announced plans to reconstruct tariff rates through other legal authorities.⁴³⁵ Those efforts have also been subject to litigation. Foreign governments have questioned the legal basis for their trade deals, and some have paused implementation of their own commitments as they assess next steps. At the same time, while the president faces new constraints on the ability to use certain tariffs to pursue trade coercion, the Supreme Court decision did not alter his ability to wield other tools, such as outright bans on trade or sanctions. Most foreign governments are likely to realize that their economic vulnerability to U.S. pressure remains, regardless of the underlying mechanism used.

Where trade coercion has focused squarely on economic goals, it has gained more traction, though potentially at the cost of incentivizing longer-term diversification away from trade with the United States. Additionally, any negative economic effects of the historically high tariff rates could accumulate over time, leading to more pronounced impacts on day-to-day life for Americans and rising political resistance to the administration’s trade policy. That the administration has started to introduce some exceptions and carve-outs to the tariffs indicates a sensitivity to these concerns.

North America Trade Coercion (2025–Present)

America’s continental partners were hit early with security-related tariffs, and the North American relationship has been on rocky ground ever since. Canada and Mexico’s deep reliance on trade with the United States has left them among the most vulnerable to U.S. trade coercion. The U.S. trade coercion has sparked strong resistance to the United States, both because of the economic damage that it has caused and due to the highly provocative nature of the U.S. threats toward Canadian and Mexican sovereignty.



In the first Trump administration, the United States, Canada, and Mexico negotiated the U.S.-Mexico-Canada Agreement (USMCA), which was touted as a gold standard trade agreement, one that Congress passed with bipartisan support and Trump hailed as a signature accomplishment.⁴³⁶ USMCA became the legal framework for a highly connected North American market. Canada and Mexico both send around 75 percent of their exports to the United States, and the countries are consistently the top two markets for U.S. exports, underscoring the mutually beneficial nature of North American trade.⁴³⁷ A large portion of this trade is in products, such as automobiles, that pass borders several times during the production process, highlighting the deep integration of the three markets. However, the commercial value of the integrated market and the legal protection of the USMCA have so far been insufficient to guard the North American neighbors from the damaging impact of Trump’s tariffs.

Tariffs Early and Often

Less than two weeks after it came into office, the second Trump administration imposed a 25 percent tariff on Canada and Mexico in an attempt to push them to take further actions to combat illicit fentanyl trade, in the same set of actions that saw fentanyl-related tariffs imposed on China.⁴³⁸ U.S. concerns about drug flows from Mexico were not new, and prior U.S. administrations had used financial sanctions to target Mexican drug cartels.⁴³⁹ The rationale for targeting Canada was far less clear, as Canada is not a major source of fentanyl. The 2024 *National Drug Threat Assessment* from the U.S. Drug Enforcement Administration does not mention Canada once as a major source of illicit drugs.⁴⁴⁰ Volumes of fentanyl flows from Canada into the United States are negligible, with one-tenth of 1 percent of U.S. fentanyl flows attributable to Canada, which, as the Canadian government has pointed out, is less than drug flows into Canada from America.⁴⁴¹ Despite this lack of a factual grounding, Canadian officials (as well as Mexican counterparts) were already engaged in cooperation with the United States on counterfentanyl issues, with offers to enhance this work as a way to address the stated U.S. concerns.⁴⁴² The fentanyl tariffs on Canada were therefore a measure to coerce a U.S. ally into taking actions that were already underway to address an issue that largely did not exist.

The 232 tariffs also had strong negative impacts on Canada and Mexico. In the USMCA negotiations, Canada and Mexico had secured commitments from the United States on how future 232 tariffs would be imposed, reflecting their concern about the steel and aluminum tariffs already in place and the possibility of an automobiles 232 tariff.⁴⁴³ These commitments notwithstanding, 232 tariffs hit strategically important sectors for Canada and Mexico, including steel, aluminum, and automobiles. On a relatively more positive note, Canada and Mexico were not included in the Liberation Day tariffs. Additionally, after intense diplomatic efforts from Canadian and Mexican leaders, along with the business community, a partial compromise was reached in which goods or content that were compliant with the terms of the USMCA would be exempt from certain additional tariffs.⁴⁴⁴ This was not entirely a get-out-of-jail-free card, as the goods had to follow strict rules-of-origin requirements to be USMCA compliant, but it was nonetheless an important signal about the value of the USMCA and a mechanism for a large portion of North American trade to be shielded from negative tariff impacts.

Diverging Canadian and Mexican Responses

Canada and Mexico have taken different stances in responding to the U.S. tariff threats, which are potentially existential for their economies, given the high degree of dependence both have on access to the U.S. market. Both countries also had to contend with growing U.S. rhetoric that impacted core issues of their territorial sovereignty. For Canada, this was President Trump’s continued commentary about Canada becoming the “51st state”

of America, an idea that Canadians vehemently reject.⁴⁴⁵ Then-Prime Minister Justin Trudeau warned that the tariffs imposed on Canada were intended to weaken the country economically so that it would be easier for the United States to annex.⁴⁴⁶ For Mexico, concerns revolved around whether the United States would take unilateral military action within Mexico, and over Mexico’s objection, to strike at the drug cartels.

Canada was among the few countries to impose retaliatory tariffs on the United States, despite the fact that the United States clearly enjoyed escalation dominance.

Canada has taken a more oppositional stance, while still seeking to negotiate with the United States where possible. It was among the few countries to impose retaliatory tariffs on the United States, despite the fact that the United States clearly enjoyed escalation dominance.⁴⁴⁷ Current Prime Minister Mark Carney was elected in early 2025 in a surprise victory after voters turned decisively on his opponent, who was viewed as a Canadian-style Trump.⁴⁴⁸ Surging anti-American sentiment in Canada has played a strong role in the country’s response to Trump, with a majority of Canadians viewing America unfavorably.⁴⁴⁹ Canadians assess that America is both Canada’s most important ally and its largest threat, a striking assessment from one of America’s closest security allies.⁴⁵⁰

In a series of high profile moves in early 2026, Carney’s future strategy for managing the American risk became evident. Canada reduced tariffs on certain Chinese goods, as a hedging move to keep trade lanes open with China as trade with the United States becomes more uncertain.⁴⁵¹ In a speech at Davos that received a standing ovation, Carney laid out in blunt terms that the United States had caused an irrevocable “rupture” in the rules-based order.⁴⁵² In the new order, governed by power politics rather than rules or traditional alliances, Carney called for Canada and other middle powers to stand firm against the American bully. The remarks, predictably, provoked threats of additional tariffs from President Trump.⁴⁵³

Mexico’s response to date has been more accommodating, seeking dialogue with the United States while maintaining a firm stance on Mexican red lines.⁴⁵⁴ Mexican President Claudia Sheinbaum has combined a low-key diplomatic style with specific steps to appease the United States, while avoiding public flare-ups with Trump. For example, Mexico has dedicated additional troops within Mexico to combat the fentanyl trade. It also imposed its own tariffs on Chinese imports, mitigating U.S. concerns that Chinese goods were being transshipped through Mexico to benefit from the preferential trade terms of the

USMCA. At the same time, Sheinbaum has consistently pushed back against the possibility of U.S. strikes within Mexico, calling it a matter of Mexico’s sovereignty.⁴⁵⁵

Despite their divergences, neither Carney’s more provocative stance nor Sheinbaum’s strategy of private diplomacy have succeeded in mitigating the danger of U.S. trade coercion. The Trump administration correctly identified that continued access to the U.S. market was an enormous source of leverage to wield against its North American partners. Despite Carney’s efforts to hedge against U.S. economic dominance, achieving economic independence from a partner that accounts for a majority of a country’s trade is a formidable challenge. The ongoing review of the USMCA, which includes a provision that enables a review of the agreement’s effectiveness and potential withdrawal by any of the three countries, heightens risks for Canada and Mexico. At the same time, neither country appears set to yield on core issues related to their national sovereignty, signaling that the U.S. trade coercion on these issues has so far been ineffective and counterproductive.

Transatlantic Trade Coercion (2025–Present)

The transatlantic relationship has seen significant turbulence since Trump returned to office. Europe’s commitment to a rules-based international order and the WTO has been upended by the U.S. trade coercion. U.S. threats against Greenland, including the possibility of U.S. tariffs on Europe for refusing to accommodate President Trump’s demands, have exacerbated deep worries in Europe about the state of the relationship.



Europe has been forced to find an unsettling accommodation with the United States as it balances economic and security interests, while holding firm on red lines related to matters of its territorial integrity.

Fraying Alliance

The trade coercion takes place against a broader decline in transatlantic relations. In a stark contrast from the Biden administration, which hailed the transatlantic alliance for its cooperation on countering Russia's invasion of Ukraine, the Trump administration has demonstrated a deep hostility toward Europe. Vice President JD Vance's speech at the Munich Security Conference early in the administration castigated Europe on culture war issues.⁴⁵⁶ The administration's *National Security Strategy* warned of "civilizational decline" in Europe.⁴⁵⁷ The Trump team's push to end the war in Ukraine on terms highly favorable to Russia has evoked deep anxiety in Europe, where many assess a high probability of a Russian invasion of NATO territory in Europe in the coming years.⁴⁵⁸

Trump's trade coercion has exacerbated European fears of American abandonment. The administration imposed a 20 percent reciprocal tariff rate on Europe, and European trade was also highly impacted by Section 232 tariffs in key sectors. The EU considered retaliation but prioritized negotiations to resolve the trade dispute.⁴⁵⁹ In August 2025, the EU and the United States agreed to a trade détente that would see Europe's reciprocal tariff rate lowered to 15 percent and set a cap on the level of certain Section 232 tariffs, while both sides agreed to eliminate tariffs entirely in a narrow set of industrial sectors. In exchange, Europe agreed to purchase U.S. energy and AI chips and to make \$600 billion in investments in the United States.⁴⁶⁰ Almost immediately, questions arose about how the deal would be implemented, including whether the \$600 billion in promised investment was a commitment of new capital or simply a reflection of ongoing capital flows. However, like most of the agreements negotiated at the time, the deal was primarily a political handshake deal at the leader level rather than a jointly negotiated legal text, leading to inevitable confusion over what had been agreed.

The EU was criticized for accepting the lopsided deal with the United States, including because doing so meant that the EU had stepped completely outside the bounds of WTO trade rules and processes.⁴⁶¹ But, as other countries were striking deals with the United States, Europe risked its key export sectors being placed at a relative disadvantage vis-à-vis other exporters. The Trump negotiating strategy had effectively exploited coordination problems among major U.S. trading partners, all of whom would likely have been better off taking a firm, coordinated stance against the United States but none of whom wanted to get left behind once other countries started making deals.⁴⁶² Europe also sought to balance the trade dispute with its broader strategic interests in keeping America in the fold. Ultimately, the tariff deal was

accepted as a necessary evil to keep the United States committed to Ukraine and to the NATO alliance.

Greenland Dispute

Tensions erupted once again in early 2026, this time over Trump's demands that Greenland, a semiautonomous territory of Denmark, be sold to the United States. Trump's claims on Greenland have been a source of tension dating back to the first Trump administration, but the U.S. provocations took on a new light shortly after the U.S. military conducted a strike inside Venezuela that resulted in the arrest of long-time authoritarian ruler Nicolás Maduro.⁴⁶³ An emboldened Trump renewed hostile rhetoric about the status of Greenland and threatened to impose a 10 to 25 percent tariff on Denmark and other European nations that had supported Greenland.⁴⁶⁴ For a period of time, Trump refused to rule out taking the territory by force, and European countries placed military assets in Greenland, marking the first time that a NATO country had deployed troops to deter military action from another member.⁴⁶⁵ Trump ultimately backed down after reaching an ambiguous "framework" for further dialogue with NATO Secretary-General Mark Rutte.⁴⁶⁶ The possibility looms, however, that the U.S. threats will re-emerge, and the transatlantic relationship was badly damaged by the U.S. aggression on the Greenland matter.

European countries placed military assets in Greenland, marking the first time that a NATO country had deployed troops to deter military action from another member.

The administration's Greenland stance was difficult to rationalize.⁴⁶⁷ While Greenland has clear strategic significance due to its natural resources and presence in the Arctic, a long-standing defense agreement allows the United States to maintain and expand its military presence there.⁴⁶⁸ The status of Denmark as a NATO ally would have seemed to augur well for a cooperative approach to any joint security issues related to Russia and the PRC, which President Trump has cited as part of his rationale. Neither Greenland nor Denmark is interested in the U.S. acquisition, and most Americans oppose the idea as well.⁴⁶⁹ However, it appears to have been the stiffer-than-anticipated European resistance rather than a renewed interest in strategic logic that caused the Trump reversal, at least for the moment.

The transatlantic relationship has been battered, but it is not yet clear what an effective strategy will be for Europe to respond to U.S. trade coercion. While Europe's trade dependence on the United States is less extreme than that of Canada and Mexico, it nonetheless still relies on trade and is already struggling with sluggish growth and competitiveness.⁴⁷⁰ Europe does not have a

strong track record in diversifying economic relations away from strategic adversaries, as their decades-long dependence on Russian energy demonstrates. In the sanctions context, prior U.S. administrations have been frustrated by the slow-moving nature of the European bureaucracy, as well as the need for consensus of all 27 EU member states, which has watered down and delayed effective sanctions aligned with America. Now, those same factors will hamper EU alignment against America. The Greenland incident shows that U.S. tariff threats will continue relentlessly, regardless of any notional deal on trade that is reached, as the U.S. president relies on trade coercion to pursue his geopolitical impulses.

Lessons Learned from Trade Coercion Cases

The Trump administration’s trade coercion has been highly controversial at home and abroad. By assessing the trade coercion based on the criteria associated with best practices for economic pressure, several vulnerabilities are apparent, and these may ultimately prove fatal for the trade coercion efforts.

To its credit, the Trump administration correctly identified the massive amount of leverage the United States has due to its large and previously open domestic market. Threats to abruptly cut off access to the U.S. market would impose high costs on other countries, and the race by many foreign governments to negotiate off-ramps to the U.S. tariffs shows that these costs were meaningful. The administration essentially created a trade war version of the prisoner’s dilemma, in which no one country wants to oppose the United States alone and counter-U.S. coordination takes a backseat to attempts to preserve one’s own relative advantage in accessing the U.S. market.⁴⁷¹ This dynamic has led to the negotiation of several trade deals that accommodate U.S. trade

and investment demands. Yet, even these deals are hamstrung by their coercive nature, with no mechanisms for the United States to enforce the commitments of other governments other than threatening additional tariffs, undermining the stability that the deals are intended to provide. Legal issues could introduce further complexity, as the U.S. Supreme Court has ruled that the use of emergency powers to impose tariffs is unlawful, impacting the initial legal basis for many of the tariffs as well as the deals that the administration subsequently negotiated with foreign trading partners.

The short-term wins of the reciprocal trade deals are overshadowed by the broader implications of a U.S. foreign policy centered on trade coercion. Rather than incentivizing foreign governments to align with U.S. policy preferences, the trade coercion has created significant political incentives for them to resist the United States and align with each other against America. By using coercion on America’s friends, the Trump administration has inflicted lasting damage on American alliances with little to show for it in return. Canada and Mexico could have been persuaded to strengthen cooperation on fentanyl without being bullied. Denmark has not agreed to sell Greenland. By taking a coercive rather than cooperative approach with allies, Trump’s trade coercion has sparked rising anti-American sentiment in some of America’s closest partners, along with a significant “rally around the flag” effect for political leaders that push back on Trump. This is particularly true when trade coercion is combined with threats of military force, as in the North American and transatlantic cases. Unsurprisingly, the trade coercion has inspired no alignment from allies, other countries, or the broader international community.

Overall Trade Coercion Effectiveness

	China		Global Trade	North America	Transatlantic
	2018-2025	2025-present			
Overall Foreign Policy Success Rating	⊖	⊗	⊖	⊗	⊗
	Mixed	Failure	Mixed	Failure	Failure
Criteria of Economic Pressure					
Strategic Context					
Clear articulation of realistic goals	●	●	●	●	●
Backed by military force	●	●	●	●	●
Operational Construction					
Effective chokepoint	●	●	●	●	●
Reversibility	●	●	●	●	●
Impact on political incentives	●	●	●	●	●
Allied alignment	●	●	●	●	●
Nonallied participation	●	●	●	●	●
Implementation	●	●	●	●	●
Durability					
International legitimacy	●	●	●	●	●
Sustainability for U.S. economy	●	●	●	●	●
Systemic effects	●	●	●	●	●

Even if one were less concerned about the impact on alliances, the mechanics of the coercion appear faulty. Coercion can work when the target understands what they need to do to alleviate the economic pressure, and when the coercer can credibly promise to offer relief when the target's behavior changes. Trump's coercion does the opposite, levying tariffs for a wide range of goals and continuing to issue threats of more tariffs with no end in sight. Frequent targets, including China, Canada, and Europe, have recognized that acceding to Trump's demands in one instance guarantees no safety from trade coercion in the future. Any deal with Trump is fragile, which makes it more difficult for foreign governments to justify to their own citizens why they should take meaningful actions to accommodate U.S. concerns. And while foreign governments must take all tariff threats seriously, knowing specifically which ones will be implemented remains a challenge, as Trump only follows through with a quarter of his proposed tariffs.⁴⁷² Without more discipline and a commitment to refrain from using tariffs in the future, the tariff escalations may prove to be more disruptive and punitive rather than genuinely coercive.

The trade coercion approach of the Trump administration has had large systemic effects on the geoeconomic environment. It has created new disadvantages for U.S. economic and security interests in the strategic competition with the PRC in three distinct ways. First, the U.S. actions toward the PRC have led to a more assertive PRC posture, including by prompting the PRC to deploy its own highly coercive measures, such as the rare-earth export controls. As a result, the United States will be constrained from taking defensive measures, such as additional export controls, as the likelihood of strong PRC retaliation is now higher. Second, U.S. cooperation with allies on countering the PRC has been slowed as the United States seeks a *détente* with the PRC. No U.S. partner wants to get out ahead of the United States on China actions, as doing so would leave them vulnerable to PRC retaliation themselves.⁴⁷³ Third, the tariffs on allies may lead these countries to hedge against the risk of future U.S. trade coercion by expanding trade ties with China. The combination of stronger PRC retaliation, frozen allied cooperation, and increased hedging from traditional U.S. partners creates a substantial structural disadvantage for the United States in its competition with the PRC.

The systemic effects extend more broadly to the role that the United States plays in the global economy. Carney's Davos speech was a call for countries to move away from the United States in their economic relations. Countries that have successfully withstood U.S. trade coercion are also those that have found new outlets for their trade, such as China and Brazil.

Foreign governments are seeking new trade arrangements with each other, including notable efforts such as the EU-India free trade agreement and discussions for the EU to join the Comprehensive and Progressive Agreement for TransPacific Partnership (CPTPP), an agreement that Trump withdrew from in his first term.⁴⁷⁴ While these efforts will take longer to negotiate than the quick-hit reciprocal trade agreements with the United States, they are more likely to be enduring as they are based on a predictable system of rules and are structured to benefit both sides.

The durability of the trade coercion approach is also questionable when it comes to domestic sustainability. Affordability is a potent political issue, and to the extent that the tariffs cause or can be politically linked to rising prices in the U.S. market, they will become a political liability for President Trump. A strong majority of Americans disapprove of the Trump administration's tariff policies and think that the tariffs have led to increased prices for goods they buy.⁴⁷⁵ Congress has started to voice objections, including advancing resolutions disapproving of certain tariff efforts.⁴⁷⁶ This potential for negative impacts on the U.S. economy is a striking difference between trade coercion and other economic pressure efforts, which almost always seek to avoid imposing domestic economic costs. Litigation opposing the tariffs reflects the high degree of domestic opposition that the tariffs face. Importantly, the administration's economic

view on tariffs is weighted differently, recognizing that there may be short-term costs but arguing that the overall benefit for the U.S. economy will come through the longer-term rebuilding of U.S. manufacturing and exports. Under this perspective, a certain amount of economic dislocation and adjustment is a feature, not a bug, of the high tariffs.

Despite the flaws in the trade coercion approach, it is clear there is no turning back the clock to a time when the United States engaged in international trade in a neutral, rules-based manner. For decades, the United States assessed that it had an overarching interest in a stable, predictable global economic environment, and that agreeing to be bound by an intricate system of trade rules was an essential way to promote that environment. Today, the overarching U.S. interest, as articulated by the Trump administration's *National Security Strategy*, is to get what America wants and to use trade coercion as the means to do so.⁴⁷⁷ Trump has moved America, and the world along with it, into a new world order in which economic leverage defines the relations between nations. Yet, as the track record to date shows, this shift may not benefit the United States strategically as the world turns against it. America first is in fact America alone, when it comes to trade coercion.

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Chapter 5: Building Blocks of an Economic Pressure Doctrine

THE CASE STUDIES EXPLORED in the preceding chapters provide rich lessons in what works, and what does not, in wielding the economic leverage of the United States. This chapter integrates those lessons across all 20 cases with the goal of building a holistic set of principles to guide economic pressure in the future.

Eleven criteria were used in the case studies to examine specific aspects of an economic pressure campaign that typically are thought to be important for a campaign to succeed. In this chapter, each individual criterion is assessed across all 20 cases to enable a comparison across different types of economic pressure campaigns, with the goal of arriving at principles that are applicable in all. The analysis of each criterion includes a table that sorts the 20 economic pressure cases in a matrix of whether the case succeeded in meeting its stated foreign policy or national security goals, cross-walked with whether that criterion was met. This analysis offers clear-cut guidance for some criteria. For example, without clear and realistic goals, an economic pressure campaign is likely to fail. Others, however, are more complex, such as the role of allied cooperation and the use of military force alongside economic pressure in pursuit of a foreign policy goal.

The 11 criteria address the strategic context of the economic pressure effort, its operational construction, and its durability.

Strategic Context

Two of the assessed criteria relate to the strategic context of the economic pressure case, including whether: 1) clear and realistic foreign policy or national security goals were established, and 2) military force was among the instruments of national power brought to bear in support of the goal.

Clear Articulation of Realistic Goals

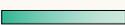
The overall foreign policy or national security goal was clearly articulated and realistic, and the role that economic pressure was to play in achieving that goal was also well articulated and realistic.

Key Takeaways

- Set clear foreign policy or national security goals and realistic expectations for the use of economic pressure to achieve those goals.
- Distinguish between economic impact and political effect, recognizing that political effect is the ultimate goal.
- Ambition in goal-setting is supported by policy flexibility when tied to changes in target behavior and geopolitical context, rather than shifts in U.S. policy preferences.
- Beware of goals that seek to “impose costs” without clear benchmarks for success.

Clear Articulation of Realistic Goals

	⊗ Policy Failure	⊖ Mixed Results	⊙ Policy Success
Unclear or unrealistic goal	<ul style="list-style-type: none"> E Cuba Iraq S Iran (POST-JCPOA) Venezuela (PRE-2025) T China (2025-PRESENT) North America Transatlantic 	<ul style="list-style-type: none"> S Venezuela (POST-2025) 	
Unrealistic expectation for economic pressure's role in achieving foreign policy or national security goal	<ul style="list-style-type: none"> S DRPK D Russia export controls 	<ul style="list-style-type: none"> S Russia D Chinese telecommunications restrictions T Global (2025-PRESENT) 	
Clear, realistic goal		<ul style="list-style-type: none"> D Strategic trade controls T China (2018-2025) 	<ul style="list-style-type: none"> E South Africa Libya (WMD) Libya (TERRORISM) S Iran (PRE-JCPOA) D AI and chip ecosystem controls

E EMBARGO **S** SANCTIONS **D** TECHNOLOGY DENIAL **T** TRADE  NUMBER OF CASES, MOST TO LEAST

Establishing a clear and realistic foreign policy or national security goal, as well as clear and realistic expectations for how the use of economic pressure may support the pursuit of that goal, is one of the most important things the United States has done in successful economic pressure cases. This is stating the obvious, perhaps, but it is nonetheless an important and often overlooked criterion, particularly when a foreign policy or national security challenge presents little in the way of surefire options.

Clear and realistic goals do not have to mean low-ambition goals. Objectives that economic pressure has helped achieve include convincing dangerous governments to agree to constraints on their pursuit of nuclear weapons (Iran pre-JCPOA and Libya), dismantling of an entire system of government (South Africa), and delaying technological development in a highly capable and innovative economy (AI and chip ecosystem controls). The ultimate success of these cases depended on a wide range of other variables, but it all started with articulation of a reasonable theory of victory when it came to setting foreign policy or national security goals.

On the flip side, certain policy objectives may be out of reach, regardless of the skill of the diplomats or sanctioning officials involved. When an objective threatens the security of the regime in power in the target country, economic pressure can harden opposition to the United States rather than serve as effective leverage, as the examples of Cuba, the DPRK, and Iran post-JCPOA show. The trade coercion cases also show the risks of trying to achieve too much with a single tool, as the overuse of tariffs to solve a host of economic and security challenges has undercut the ability to achieve any one objective.

Adjusting foreign policy or national security goals to adapt to changed circumstances can increase the chances of success. In South Africa, the end of the Cold War opened policy space by reducing the need for engagement with the apartheid government for purposes of regional stability. Cuba is a case in point in the other direction, where the embargo has remained stubbornly in place regardless of its perceived effectiveness or changing geopolitical context. The DPRK case presents an important example in which moderating objectives to reflect the DPRK's status as a nuclear armed state may open more possibilities for dialogue to manage the risks of conflict, rather than continuing to push for what may be an unrealistic objective of complete denuclearization. Similarly, one might wonder how the sanctions debate would have played out in the Iraq case if the embargo had been eased after the First Gulf War, rather than extended for a new set of policy goals.

However, while flexibility is good, flip-flopping is not. To the extent that U.S. policy toward Cuba has moderated, it has been due to shifts in U.S. domestic political sentiment, rather than driven by changes in Cuba's behavior, teaching the lesson that the U.S. position on the embargo is not directly linked to Cuba's actions. The U.S. withdrawal from the JCPOA and the

start of intensified sanctions pressure on Iran upended a carefully calibrated negotiation that had brought Iran to the table and obtained rare cooperation from the PRC. Recent actions to reverse some of the AI and chip ecosystem controls without a clear strategic rationale have caused confusion among U.S. partners that had previously aligned with U.S. efforts. While the ability of each U.S. president to set their own policy is fundamentally important in a democratic system, large shifts in policy goals can nonetheless erode the potency of ongoing pressure efforts if the changes are driven more by U.S. policy preferences rather than observed changes in the target's behavior.

There are times when ambitious policy goals are set not because they are realistic, but because they are necessary. The coordinated sanctions on Russia are a case in point. Sanctioning an economy as large as Russia's was always going to be a difficult proposition, and indeed it has proven to be so, even with strong coordination between the United States and allies. Yet, not sanctioning Russia would have had equally damaging effects, if its blatant territorial aggression and violation of international

Effective goal setting distinguishes between the impact of economic pressure and observed political changes that align with the U.S. foreign policy goals.

law had gone without a strong response from the international community. In such cases, the United States needs high marks on every other criterion for economic pressure to succeed, which unfortunately has not been the case with the Russia sanctions and export controls. The stated goals have shifted from bringing the Russian economy to its knees to the markedly milder objective of imposing an ambiguous set of costs over an indeterminate period. Secondary goals, such as sending a deterrent signal to other would-be aggressors, may be worthwhile, but leaning too heavily on this rationale is a slippery slope toward a post-hoc justification of a floundering economic pressure campaign. And one should be wary of what other aggressor states read from an economic pressure attempt that has struggled to find purchase.

Finally, effective goal setting distinguishes between the impact of economic pressure and observed political changes that align with the U.S. foreign policy goals. The United States has applied significant economic pressure to heavily sanctioned states, such as the DPRK and Cuba, leading to profoundly negative economic impacts. Yet, in these sanctions stalemate cases, economic pressure has not aggregated to the desired political effect, and the ultimate foreign policy goals remain unmet. The Chinese telecoms case is another example of this distinction between economic impact and political effect, as U.S. restrictions have clearly hampered Huawei's commercial prospects, but the unclear and wide-ranging goals of the United States have made it difficult to determine if the political effect has been achieved.

Backed by Military Force

Military force supported the foreign policy or national security goal. This criterion is limited to direct, overt U.S. military action. It does not include covert or intelligence operations, cyber actions, or arms provisions to proxies.

Key Takeaways

- If military force is an available and appropriate option, the threat or use of force can complement economic pressure for foreign policy or national security goals that are coercive and targeted at U.S. adversaries.
- Difficult but necessary goals are hard to achieve when military force is ruled out and coercive sanctions are the primary instrument of U.S. pressure.
- Use of force for economic and technology competition objectives is not part of U.S. economic pressure practice, nor should it be.
- Use or threats of force against U.S. partners and allies are counterproductive and result in highly negative systemic effects.

The possibility of military force can be an essential component of an overall foreign policy or national security strategy. The interplay of economic pressure and armed force, however, is not clear cut, as economic pressure is often used as a substitute for, rather than complement to, armed force, and there are many cases in which military action would be inadvisable.

For some goals, military force has been clearly taken off the table. None of the technology denial cases involved the threat of force. Force would be inappropriate to address what is essentially an economic and technological competition, and many of the entities targeted by the controls are civilian rather than military, making it deeply problematic to target them with force. The trade coercion cases that involve predominantly trade-related objectives (global trade and the China trade cases) have similar characteristics. U.S. military action was also not contemplated in the South Africa case, which did not pose a direct threat to U.S. security interests.

The North American and transatlantic trade coercion cases involved an implied threat of force, with President Trump’s statements about Canada and Greenland becoming part of the United States, along with consideration of military strikes within Mexico to target drug cartels. The suggestion that force might be on the table has provoked a strong backlash against the United States, both because these threats are aimed at close U.S. partners and because they violate core principles of national sovereignty. To date, the threat of force in the North American and transatlantic trade cases has remained predominantly rhetorical, but leaders in the foreign governments have taken it seriously enough that it has caused a severe strain on relations with the United States.

The Russia and DPRK cases are examples where economic pressure is used as a substitute for force, even in the context of a foreign policy challenge that presents high enough risk that force might be contemplated. In both, the desire to avoid military

Backed by Military Force

	⊗ Policy Failure	⊖ Mixed Results	⊕ Policy Success
Military force ruled out	<ul style="list-style-type: none"> S DPRK Venezuela (PRE-2025) D Russia export controls T China (2025-PRESENT) 	<ul style="list-style-type: none"> S Russia D Strategic trade controls Chinese telecommunications restrictions T China (2018-2025) Global 	<ul style="list-style-type: none"> E South Africa D AI and chip ecosystem controls
Military force understood to be an option	<ul style="list-style-type: none"> E Cuba T North America Transatlantic 		<ul style="list-style-type: none"> E Libya (WMD) S Iran (PRE-JCPOA)
Military force used	<ul style="list-style-type: none"> E Iraq S Iran (POST-JCPOA) 	<ul style="list-style-type: none"> S Venezuela (POST-2025) 	<ul style="list-style-type: none"> E Libya (TERRORISM)

E EMBARGO **S** SANCTIONS **D** TECHNOLOGY DENIAL **T** TRADE NUMBER OF CASES, MOST TO LEAST

escalation is a major factor. The United States has ruled out military engagement in Ukraine to avoid a direct military conflict with Russia and the possibility of nuclear escalation, though it did start providing lethal aid to Ukraine after the 2022 invasion. In the DPRK case, the likelihood of conventional escalation against South Korea in response to a preemptive strike on DPRK nuclear facilities is an influential factor. Economic pressure in these cases bears the brunt of the coercive burden, and in both cases success has proven elusive.

The Iran pre-JCPOA and Libya cases are examples of foreign policy successes that involved both economic pressure and the threat of force. U.S. negotiators credited the threat of force as providing critical leverage in the JCPOA negotiations with Iran. Similarly, a fear of U.S. military action after the U.S. invasion of Iraq played a strong role in Qaddafi's decision to forgo terrorism and WMDs. In both cases, the threat of force was a proportionate response to the danger to U.S. lives and security interests posed by the possibility of Iran and Libya becoming nuclear states. In other cases, however, a threat of force could be counterproductive, as with the DPRK, where pursuit of a nuclear capability is seen as guaranteeing regime security in the face of perceived external threats.

Once a case escalates to the actual use of force, it can imply failure of either sanctions or the overall U.S. foreign policy approach. President Reagan struck Libyan military forces in the 1980s after declaring that sanctions had failed to deter Qaddafi's reign of terror. U.S. military actions in Iraq followed extensive sanctions campaigns that were insufficient to force a change in Saddam Hussein's behavior. The second Trump administration escalated to military action in Iran and Venezuela as it assessed that sanctions had failed. Whether the military actions produce more progress on dismantling Iran's nuclear program or ensuring democracy and stability in Venezuela remains to be seen.

Operational Construction

Six of the criteria relate to how an economic pressure operation was constructed, including whether: 1) a chokepoint existed or could be constructed; 2) easing of economic pressure was linked to behavioral change (i.e., reversibility); 3) economic pressure was designed to productively influence the target's political incentives; 4) allies aligned with U.S. economic pressure; 5) nonallies aligned with U.S. economic pressure; and 6) economic pressure operations were effectively implemented, resourced, and enforced.

Effective Chokepoint

The United States effectively identified an asymmetric point of leverage or chokepoint and designed economic pressure measures to assert full control over that chokepoint.

Key Takeaways

- Beware the false promise of chokepoints. Genuine chokepoints are rare.
- Specific chokepoints are less important than the overall balance of economic leverage.
- Efforts to create chokepoints through coordination, rather than direct U.S. control over the underlying market activity, are vulnerable to carve-outs and defections that undermine the effectiveness of the chokepoint.

True chokepoints, in which the United States has full control over the underlying economic activity to be denied, are exceedingly rare. Even when chokepoints exist, they may be insufficient in the face of a target's capacity to retaliate or structural dependencies that prevent the full chokepoint power from being leveraged.

Two of the success cases leveraged genuine U.S. chokepoints. The AI and chip ecosystem controls were designed around the dominance of U.S. suppliers in the production of advanced chips and the tools necessary to make such chips. Coordination with other countries was pursued, but predominantly to ensure that the small handful of other firms capable of backfilling the U.S. technology did not do so. The Iran sanctions, though targeted at Iran's energy exports, relied heavily on dollar-based sanctions to create a chokehold over Iran's ability to conduct the financial transactions necessary to engage in energy trade.

In the Libya case, restrictions on investments in energy sector upgrades created an important pressure point at the right time, even though the sanctions were never able to fully cut off Libya's energy trade with European countries. Similarly, the South Africa embargo was patchy, but applied enough pressure to amplify other economic stressors at the time, such as the country's debt issues and capital flight. In these cases, good timing and targeted pressure was enough even without the presence of genuine chokepoints, but the overall achievement of the foreign policy goals was heavily dependent on other factors.

In most other cases, the United States did not enjoy an organic chokepoint nor was it able to construct one through coordination with other countries, and this undercut the effectiveness of economic pressure. The bulk of the embargo and modern sanctions cases required some level of coordination with other countries. But just as often, coordination was undermined by defections from the sanctions coalition (Iraq, strategic trade controls), structural dependencies that prevented imposition of stronger sanctions by partners (every case involving Europe and energy), or a lack of strategic alignment with key nonallied governments (the PRC in the DPRK, Russia, Venezuela, and Iran post-JCPOA cases). Economic pressure was applied nonetheless, but it represented less than a full chokepoint given these dynamics. (In the Venezuela post-2025 case, the U.S. military quarantine facilitates stronger control over energy exports, but this has been achieved via military rather than economic means.) In some

Effective Chokepoint

	⊗ Policy Failure	⊖ Mixed Results	✓ Policy Success
No chokepoint exists/major market participants do not align with the United States	<ul style="list-style-type: none"> E Cuba Iraq D Russia export controls 		
United States/partners have meaningful but partial influence over chokepoint	<ul style="list-style-type: none"> S Iran (POST-JCPOA) DPRK Venezuela (PRE-2025) T China (2025-PRESENT) Transatlantic 	<ul style="list-style-type: none"> S Russia Venezuela (POST-2025) D Strategic trade controls T China (2018-2025) Global 	<ul style="list-style-type: none"> E South Africa Libya (WMD) Libya (TERRORISM)
United States/partners control chokepoint	<ul style="list-style-type: none"> T North America 	<ul style="list-style-type: none"> D Chinese telecommunications restrictions 	<ul style="list-style-type: none"> S Iran (PRE-JCPOA) D AI and chip ecosystem controls

E EMBARGO **S** SANCTIONS **D** TECHNOLOGY DENIAL **T** TRADE NUMBER OF CASES, MOST TO LEAST

cases, extraterritorial measures were used to substitute for other countries' help in constructing a chokepoint, which sometimes worked but just as often backfired by riling up allied tensions.

In certain cases, the United States leveraged its chokepoints but was unwilling to take enforcement actions against violators who assisted the pressure target, eroding the potency of the chokepoint. In the Russia campaign, for example, the United States used its most aggressive sanctions and export controls tools to punish Russia. It refrained, however, from sanctioning the PRC for its continued support of the Russian war effort, beyond targeting specific lower-level companies, out of concern about economic escalation with the PRC. That energy transactions were carved out of the financial sanctions, due to concerns over energy market stability, also undercut the sanctions impact. Despite high levels of allied coordination and wielding of some of the most powerful economic pressure tools, broader strategic considerations and the existence of structural economic dependencies meant the economic pressure was not as powerful as anticipated.

The Russia case and the China trade coercion cases show that, while chokepoints may exist at certain points, coercive attempts must account for the retaliatory capability of the target. The United States has a chokepoint in the U.S. dollar, but it can be countered by the PRC's chokepoint in rare earths or Russia's control over Europe's energy supply. The U.S. chokepoint over

advanced AI chips can be countered by the PRC's growing share of legacy chips. So on and so forth. A narrow focus on chokepoints that does not account for the full balance of economic leverage between the United States and its target misses the forest for the trees.

The difficulty in constructing potent chokepoints has led to the accumulation of measures on heavily sanctioned targets, as the United States layers additional restrictions and designations on top of one another to maintain economic pressure. This also includes a mixture of instruments, as financial sanctions, export controls, and other restrictions are deployed in tandem to achieve the maximal amount of pressure. Most of the heavily sanctioned countries have de facto embargoes, even if these were achieved through accumulation rather than imposed in one fell swoop. This has meaningful implications for the idea of smart sanctions or the hope to impose persuasive economic force that impacts predominantly the political elite, rather than the civilian population. U.S. sanctions practice has shown that a large amount of economic force is necessary to alter target behavior, and this amount of economic force necessarily has impacts throughout the target economy. Brute economic force remains an unavoidable element of modern U.S. sanctions practice.

The trade coercion cases expanded on the idea of chokepoints by leveraging the commercial attractiveness of the U.S. domestic market writ large. For many countries, the United States is an

important trading partner, particularly for its massive consumption that soaks up exports from around the world. The abrupt and highly disruptive nature of the U.S. tariffs imposed real costs in the short term, creating an effective leverage point for the United States. However, for most countries, this leverage is not a true chokepoint, as over time they can diversify trade away from the United States. Doing so would be painful and particularly difficult for traded sectors that rely heavily on the U.S. market, but it is more feasible than, for example, moving off the U.S. dollar. The exception may be countries that have extreme dependencies on the United States, such as Canada and Mexico, both of which send more than three-quarters of their exports to America. Yet, even with this dependency, the North America case shows how U.S. trade coercion has hardened opposition to the United States, as economic integration between allies is weaponized in novel and offensive ways.

Reversibility

Economic pressure was linked to changes in target behavior. When target behavior changed to align with U.S. policy, the United States offered relief from economic pressure.

Key Takeaways

- The ability to credibly offer relief from economic pressure is essential for effective coercion. Pressure without the possibility of relief is punitive, not coercive.

- Technology denial efforts are unique in that they prioritize constraining a target’s abilities and options, rather than using coercive pressure to force near-term changes in intent.
- In cases of sanctions stalemates, sanctions are most useful as a negotiating chip in endgame negotiations rather than a means to further increase pressure.

The legacy embargo, modern sanctions, and trade coercion cases have coercive goals in that the United States sought to use economic pressure to persuade another government to do something it otherwise would not. To be coercive, the economic pressure must include both a credible threat to impose the pressure, as well as a credible commitment to relieve pressure when the target accedes to U.S. demands. A high degree of reversibility, tied to observed changes in target behavior, should increase the coercive nature of an economic pressure operation.

However, across the legacy embargo and modern sanctions cases, the United States has a serious problem with sanctions stalemates. Economic pressure has been in place for decades on targets such as Cuba and the DPRK with little to show for it. Some cases, such as Iran and Venezuela, escalate to military action, but even these remain essentially unresolved. Removing sanctions is politically unpalatable, and may send a dangerous signal that sanctions targets can simply wait out the United States. On the other hand, settling into a sanctions stalemate means that sanctions have become more punitive than coercive.

Reversibility

	⊗ Policy Failure	⊖ Mixed Results	⊙ Policy Success
Economic pressure is not linked to target behavior	<ul style="list-style-type: none"> E Cuba S Iraq S Iran (POST-JCPOA) D Russia export controls T North America Transatlantic 	<ul style="list-style-type: none"> S Russia S Venezuela (POST-2025) D Strategic trade controls Chinese telecommunications restrictions T Global 	<ul style="list-style-type: none"> D AI and chip ecosystem controls
Partial link between economic pressure relief and behavior change	<ul style="list-style-type: none"> S Venezuela (PRE-2025) DPRK T China (2025-PRESENT) 		<ul style="list-style-type: none"> S Iran (PRE-JCPOA)
Economic pressure relief negotiated for behavior change		<ul style="list-style-type: none"> T China (2018-2025) 	<ul style="list-style-type: none"> E South Africa Libya (WMD) Libya (TERRORISM)

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It may also have an unhelpful demonstration effect showing that U.S. sanctions are nonnegotiable, undermining the ability of the United States to use sanctions to effectively coerce other targets in the future.

In some instances, stalemates can be broken when underlying conditions shift, as was the case in South Africa and Libya, and sanctions can become an important bargaining chip in endgame negotiations driven by other factors. This argues for maintaining entrenched economic pressure programs, even if forward progress from additional economic pressure measures seems unlikely. It also means that policymakers could consider sanctions relief as a means for increasing pressure, in that allowing a certain level of economic interaction and facilitating a U.S. commercial presence in a heavily sanctioned jurisdiction could provide more leverage than maintaining an absence of ties.

The trade coercion cases highlight differences in reversibility and its importance in leading to behavioral change. The China trade coercion case in the first Trump administration directly linked tariff relief to PRC commitments made in the Phase One agreement, which strengthened the coercive nature of those tariffs. In the second Trump administration, tariff threats toward the PRC have been undisciplined and often reversed, not because of positive changes in PRC behavior but due to the threat of PRC retaliation. This threat of retaliation has reduced the volatility of the Trump tariff threats toward the PRC, bringing the U.S. position closer to one where tariffs and corresponding PRC actions are more directly linked as part of a negotiated process. But this negotiating dynamic is one where the United States is on its back foot, with the PRC as an equal sparring partner rather than just a target of coercion.

No other country has achieved the same coercive balance with the United States as the PRC. While several U.S. trading partners have negotiated political deals to reduce the level of tariffs imposed on their exports to the United States, they all still have been subject to additional tariff threats. The key failing of the Trump trade coercion approach has been the lack of credibility to offer genuine tariff relief once the target countries accede to his demands. Additionally, certain tariffs, such as the universal baseline tariff, are nonnegotiable, further reducing the reversible and therefore coercive nature of the overall U.S. trade coercion approach.

The goal of the technology denial cases is different, in that these efforts seek to alter the target's behavior by constraining its military capabilities over time. To the extent that technology denial operations alter target behavior, it is by taking options off the table rather than forcing near-term changes in the target's intentions. Reversibility is less important in this context. There is no real expectation on the part of U.S. policymakers that export controls will change, for example, the overall regional aggression of the PRC. Thus, export controls traditionally have been viewed as nonnegotiable and nonreversible, seeking to alter the military

balance of power rather than acting as coercive leverage in the way that other types of economic pressure efforts often do. This position holds somewhat in the second Trump administration, which has reversed controls on advanced AI chips but has done so based on commercial considerations rather than by linking the export control changes to changes in PRC behavior. In other instances, the administration has introduced new export controls explicitly to build leverage in negotiations with the PRC and subsequently removed them as part of the overall negotiations. However, the fact that the United States needed to increase leverage even after imposing massive tariffs on China may reflect the evenly matched balance of coercive power between the two superpowers more than it does an effective use of reversible economic pressure.

Impact on Political Incentives

The economic pressure brought to bear on a target was designed to alter its political incentives and make it more likely that the target would accommodate U.S. demands, based on a deep understanding of the target's perception of its own interests and a realistic projection of how the target may respond to economic pressure.

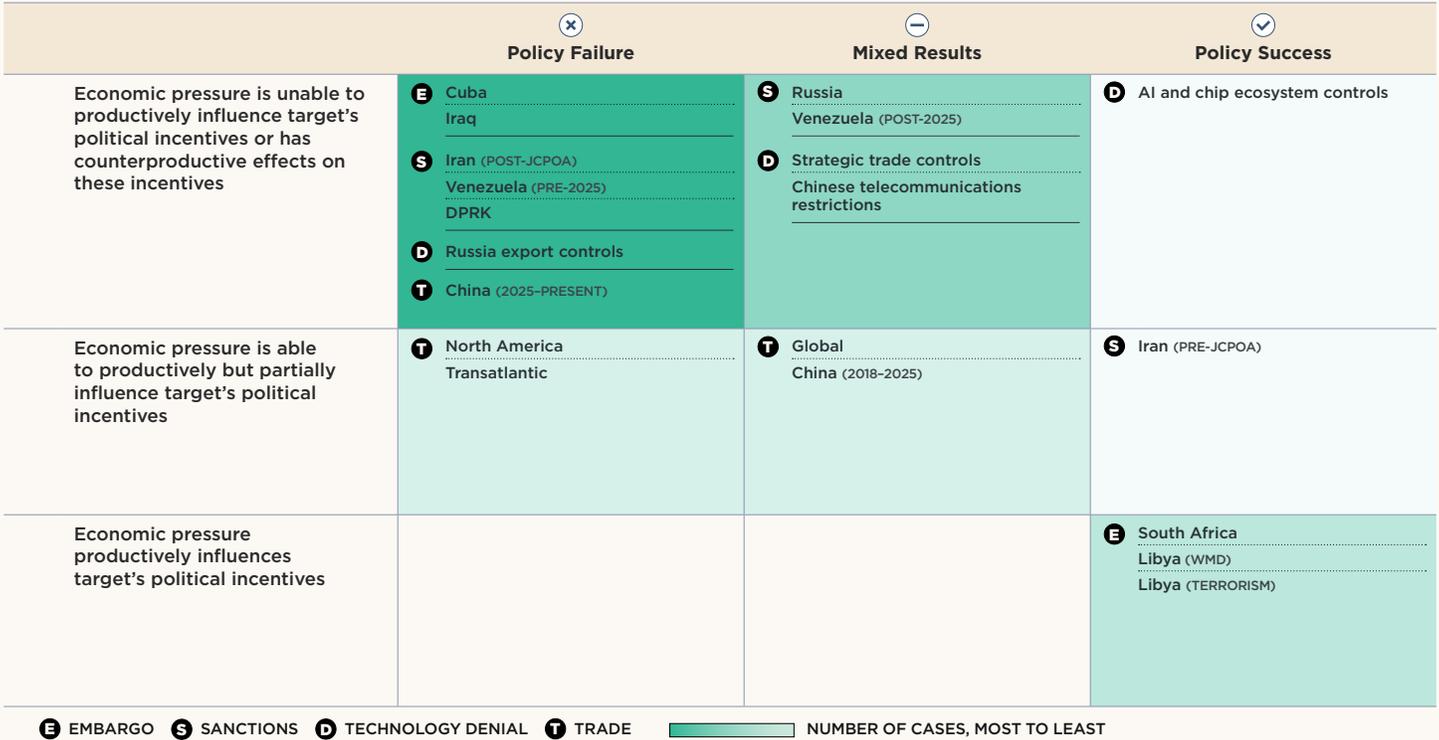
Key Takeaways

- Political incentives are as important as economic vulnerabilities in determining the effectiveness of economic pressure operations.
- Economic pressure may be productive or counterproductive, depending on the target's political incentives and its perception of its interests.
- Technology denial efforts tend to have counterproductive effects on the target's political incentives by spurring indigenous innovation, which may matter more for long-term systemic effects rather than short-term effectiveness of the operations.

Economic pressure is intended to result in political impact, and effective economic pressure operations will be based on a deep understanding of how a target perceives its own political incentive structure and how economic pressure may alter this structure. In the Russia case, for example, policymakers may have underestimated the importance of victory in Ukraine to Putin's perceptions of his own regime survival, leading to stronger than anticipated Russian resolve to withstand severe U.S. and allied economic pressure.

Some cases that appear similar on their face have led to different outcomes based on the target's political incentives. Consider the comparison of the DPRK and Libya, both of which involved dictators pursuing a nuclear weapon and who had good reason to fear U.S. military action following the invasion of Iraq. Yet, Qaddafi relinquished his WMDs, while Kim Jung Un has not.

Impact on Political Incentives



This is in part attributable to the different stages of each program, with Libya years away from a weapon by the time the DPRK had developed one. But it also reflects the particular pressure points and political calculus each was facing. Qaddafi faced internal threats, high costs from pursuing an ineffective WMD program, and sanctions-based restrictions preventing critical upgrades to energy infrastructure. International engagement became more valuable in his strategy to preserve his leadership. Kim and his father, on the other hand, both saw the key to their regime’s security as possessing a nuclear weapon. A similar U.S. sanctions playbook played out very differently against the backdrop of these differing sets of political incentive structures.

Domestic stakeholders can play an important role in shaping a target’s political incentives. In South Africa, the strong domestic opposition was perhaps the most critical factor in forcing the end to apartheid. In Iran, a relatively more open society (compared to the DPRK, for example) protesting declining living standards thanks to sanctions was influential in setting the political conditions for the JCPOA negotiations, including bringing the more reform-minded Hassan Rouhani into office. Prior research has found that autocratic regimes can be more resistant to sanctions pressure, as there are fewer channels for domestic dissent to influence political decision-making.⁴⁷⁸ This report is not inconsistent with that finding, given the relatively higher number of

cases involving economic pressure failure and nondemocratic governments.

The trade coercion cases highlight how economic pressure can be counterproductive, in that domestic opposition to the U.S. tariffs in the target countries has stiffened political resolve to resist U.S. pressure more forcefully. In the democratic countries facing U.S. trade coercion, there has been a significant “rally around the flag” effect for political leaders pushing back against the United States. This is especially pronounced in the North American and transatlantic trade coercion cases involving matters of national sovereignty. At the same time, however, even these cases have seen some accommodation of U.S. demands, such as the reduction of certain trade barriers, promised investments in the United States, and a heightened focus on security issues in Greenland, reflecting a complex mix of political resistance to the United States and the strategic necessity to stabilize relations.

The technology denial cases also have a counterproductive impact on political incentives, in that they can fuel domestic appetite for indigenous innovation in the target country. As noted above, technology denial efforts are typically not reversible, meaning that adaptation and innovation to blunt the impact of U.S. controls is a more realistic pathway than seeking to negotiate relief in most cases. This also has systemic effects, as described in a later section.

Allied Alignment

The United States and its allies were aligned on an economic pressure effort, both in terms of assessment of a threat and the role that economic pressure could play in addressing the threat.

Key Takeaways

- Aligning threat assessments is a necessary precondition for allied cooperation.
- Full alignment with allies is neither possible nor necessary. Unilateral measures can be effective when broadly aligned with complementary efforts from allies.
- Extraterritorial measures cannot substitute for allied coordination.
- Addressing structural dependencies of allies on potential economic pressure targets can enable a more productive role for allies in coordinated efforts.
- Targeting allies in one context makes building allied coalitions more difficult in other contexts.

Allied coordination is often hailed as a hallmark of economic pressure success stories. Yet, while allied coordination has often supported U.S. economic pressure goals, it is no guarantee of success. U.S. foreign policy history is rife with examples of U.S. disputes with allies over economic pressure efforts.

There are no cases where entirely unilateral U.S. measures have led to a foreign policy or national security success. The

Venezuela post-2025 case has had some success, but primarily because the military strike—not economic pressure—partially achieved regime change goals. The China trade (2018–2025) and global trade cases led to superficial outcomes in terms of achieving negotiated deals to relieve tariff pressure, but the China trade deal did not lead to lasting changes in PRC behavior, and the global trade coercion case remains in flux as countries contend with ever shifting demands from the Trump administration.

Partial alignment with allies can support success cases. On Libya, the United States was the major force pushing for Libya to dismantle its WMDs, and it continued U.S. unilateral sanctions for WMD reasons even after the UN had lifted its terrorism-related sanctions. Similarly, in technology denial cases, allied cooperation where feasible supported the effectiveness of these efforts, though as the strategic trade controls case amply demonstrated, cooperation was often not forthcoming. In certain cases, acting as a unilateral first mover can spur allied coordination, as was the case when the United States initially imposed the AI and chip ecosystem controls then kicked off an intense diplomatic effort to garner support from other key producer countries. Unilateral sanctions against Iran may have precluded commercial engagement in Iran by European companies, making it easier for Europe to support multilateral sanctions later.

Allied coordination is insufficient to overcome larger issues with an economic pressure campaign, such as weak enforcement,

Allied Alignment

	⊗ Policy Failure	⊖ Mixed Results	⊙ Policy Success
U.S. unilateral measures	<ul style="list-style-type: none"> E Cuba S Iran (POST-JCPOA) T China (2025-PRESENT) North America Transatlantic 	<ul style="list-style-type: none"> S Venezuela (POST-2025) T China (2018–2025) Global 	
Partial alignment with U.S. allies	<ul style="list-style-type: none"> E Iraq S Venezuela (PRE-2025) 	<ul style="list-style-type: none"> D Strategic trade controls Chinese telecommunications restrictions 	<ul style="list-style-type: none"> E South Africa Libya (WMD) Libya (TERRORISM) D AI and chip ecosystem controls
Full coordination with U.S. allies	<ul style="list-style-type: none"> S DPRK D Russia export controls 	<ul style="list-style-type: none"> S Russia 	<ul style="list-style-type: none"> S Iran (PRE-JCPOA)

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presence of major suppliers outside the economic pressure coalition, or unrealistic policy goals, as the Russia sanctions and export control cases show. Even full multilateral coordination, as existed for the DPRK and Iraq cases, may not be sufficient under such conditions.

When considering the role of allies, the United States must contend with the contentious history of its prior coordination efforts. In over half of the cases, extraterritorial measures substituted for allied coordination, as the United States and allies differed on either the strategic threat or the prudence of using economic pressure to address the threat. The list of U.S. extraterritorial measures aimed at U.S. allies is extensive: the Helms-Burton Act (Cuba), the Iran-Libya Sanctions Act, CISADA (Iran), CAATSA (Iran, Russia, and the DPRK), the Battle Act (strategic trade controls), sanctions on Japan and Norway for CoCom violations (strategic trade controls), and the proliferation of FDPRs (Chinese telecoms, Russia export controls, AI and chip ecosystem controls), to name a few. In all instances except for the FDPRs, strong allied resistance has meant that the United States has waived requirements or otherwise found ways not to impose extraterritorial measures on its allies. (In this sense, the reversal of Trump's tariff threats on European countries over Greenland in the face of European outrage is among the most traditional sanctions actions he has taken.) Nonetheless, the threat of U.S. extraterritorial measures has led U.S. allies to implement blocking statutes to shield their companies from the long reach of U.S. law.

The continual re-emergence of extraterritorial measures has multiple drivers. The U.S. Congress is typically the stronger proponent of extraterritorial measures, with the U.S. president resistant due to broader concerns about relations with allies. The congressional push is often based on concerns that allies maintain commercial ties with bad actors that threaten U.S. interests. This dynamic is clearly seen in cases involving Europe and energy, where European energy imports from Libya and Russia led to carve-outs in sanctions programs that undercut their overall effectiveness over a prolonged period. European resistance is particularly maddening when there is a sense that Europe's interests are equally threatened, as they were with Qaddafi's drumbeat of terrorist attacks within Europe and Russia's potential to coerce Europe through its energy dependence.

The trade coercion cases are unique, in that they target allies directly and in no cases are U.S. actions matched by those of other partners. Allied coordination is a moot point when the targets of the U.S. action are the allies themselves. The China trade coercion cases offer a slight nuance, in that some traditional U.S. allies have taken small steps on counter-PRC tariffs and may be coerced into stiffening these measures (e.g., tightening rules-of-origin to eliminate Chinese content in goods destined for the U.S. market) as part of their efforts to secure a trade deal with the United States. However, this potential alignment with the United States may be countered by broader trends of diversification away from the

U.S. market and hedging actions that allied governments pursue, including prioritizing general trade ties with China over derisking from China.

Nonallied Participation

Countries other than U.S. allies have incentives to align with U.S. economic pressure.

Key Takeaway

- Successful economic pressure campaigns included an approach that neutralizes the PRC's incentives to play a sanctions spoiler role.

Allied cooperation is often cited as enabling economic pressure success, but the role of nonallied countries has been just as influential. In the Cold War era, the Soviet Union played an important sanctions spoiler role, including in the Cuba case. Today, the PRC plays that same role, at a much larger scale given its more extensive trade relations globally and the sheer size of its economy.

For the Cuba, Venezuela, Iran, Russia, and DPRK cases, continued commercial engagement with China has allowed them to blunt the impact of U.S. and UN sanctions (even where the PRC initially agreed to UN sanctions). The Iran pre-JCPOA case was the outlier, where the PRC was incentivized to cooperate due to its own concerns about a nuclear-armed Iran and because U.S. diplomats found a way to ease the transition off Iranian oil. Without that structured diplomatic process after the United States withdrew from the JCPOA, there was no longer an incentive for the PRC to align with the U.S. sanctions. The sanctions spoiler role of the PRC highlights that, even with the powerful tool of dollar-based sanctions, U.S. sanctions only work if highly relevant alternative suppliers or purchasers have a reason to align with U.S. policy.

The United States does target Chinese persons who violate U.S. sanctions. The CNAS Energy, Economic, and Security program's sanctions data shows that the most frequent reason that Chinese persons receive an SDN designation is because of their involvement in facilitating the evasion of sanctions and export controls imposed on other countries.⁴⁷⁹ However, strategic reluctance to target PRC behaviors at a systemic level, rather than a company or individual level, has meant that PRC state support for heavily sanctioned countries persists.⁴⁸⁰

Nonalignment with the PRC and other countries also increases the chance of failure for the trade coercion cases. While the U.S. trade coercion does effectively reduce access to the U.S. market, it largely does not impact countries' ability to trade with partners other than the United States, with the possible restriction noted earlier regarding Chinese content in goods destined for the U.S. market. The breadth of the trade coercion cases, which are global in scale, mean that the entire world is outside of the economic pressure coalition, heightening the risk of trade diversification over time.

Nonallied Participation

	⊗ Policy Failure	⊖ Mixed Results	✓ Policy Success
Significant market participants exist outside the U.S./allied coalition	<ul style="list-style-type: none"> E Cuba S Iran (POST-JCPOA) Venezuela (PRE-2025) D Russia export controls T China (2025-PRESENT) North America Transatlantic 	<ul style="list-style-type: none"> S Russia Venezuela (POST-2025) T China (2018-2025) Global 	<ul style="list-style-type: none"> E Libya (WMD)
Market participants exist outside the U.S./allied coalition	<ul style="list-style-type: none"> E Iraq S DPRK 	<ul style="list-style-type: none"> D Strategic trade controls Chinese telecommunications restrictions 	<ul style="list-style-type: none"> E South Africa Libya (TERRORISM) D AI and chip ecosystem controls
Nonallies are incentivized to participate in the sanctions			<ul style="list-style-type: none"> S Iran (PRE-JCPOA)

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The technology denial cases have not involved nonallied cooperation, but for the most part this has not eroded their effectiveness, as significant market participants did not exist outside of the pressure coalition. The Russia export controls case is a notable exception, as China’s role as an alternative source of dual-use goods has had serious consequences for the effectiveness of this technology denial effort.

Implementation

The economic pressure campaign was effectively implemented, including that the U.S. government provided sufficient resources to execute the campaign and the economic pressure measures were effectively enforced as an administrative matter.

Key Takeaways

- Circumvention and adaptation are inevitable and should be accounted for when designing an economic pressure operation.
- Enforcement requires substantial government resources and prioritization, both for U.S. efforts and to support the efforts of U.S. partners and allies aligned with the U.S. economic pressure campaign.
- The accumulation of multiple, major economic pressure operations poses significant challenges for effective implementation, including the need for sufficient resources and

staff, constrained political attention for each operation, and overextension of the overall enforcement posture.

Weak enforcement is a frequent cause of economic pressure failure, even for operations that have well-articulated policy goals and strong international coordination. The Iraq embargo and the Russia sanctions and export controls are examples of operations that enjoyed broader international support, yet were undermined by frequent evasion and violations. Other efforts, such as the strategic trade controls, relied on partner governments for enforcement, even when those governments often turned a blind eye to violations from their own companies. Every technology denial case included concerns about a lack of resources to effectively enforce the imposed controls.

It is a myth that economic pressure is costless for the United States. While it is true that the goal is to impose costs primarily on the target, giving economic pressure teeth requires significant investments of government resources to enforce the imposed measures. Most economic pressure efforts today significantly outsource compliance to the private sector. For example, U.S. financial institutions collectively spend up to \$60 billion annually for sanctions compliance, compared to a combined budget of around \$500 million for the government’s main sanctions and export control agencies.⁴⁸¹ While the private sector has an important role to play in ensuring compliance in their operations,

Implementation

	⊗ Policy Failure	⊖ Mixed Results	☑ Policy Success
Implementation issues severely undermined economic pressure	<ul style="list-style-type: none"> E Iraq D Russia export controls T China (2025-PRESENT) North America Transatlantic 	<ul style="list-style-type: none"> D Strategic trade controls T China (2018-2025) Global (2025-PRESENT) 	
Implementation issues impacted economic pressure	<ul style="list-style-type: none"> E Cuba S Iran (POST-JCPOA) Venezuela (PRE-2025) DPRK 	<ul style="list-style-type: none"> S Russia Venezuela (POST-2025) D Chinese telecommunications restrictions 	<ul style="list-style-type: none"> E South Africa Libya (WMD) Libya (TERRORISM) D AI and chip ecosystem controls
No major implementation issues			<ul style="list-style-type: none"> S Iran (PRE-JCPOA)

E EMBARGO **S** SANCTIONS **D** TECHNOLOGY DENIAL **T** TRADE NUMBER OF CASES, MOST TO LEAST

adequate resourcing and prioritization of enforcement by the government clearly influences the success or failure of economic pressure operations.

While the U.S. government has challenges with resourcing and enforcement, it has exponentially more capacity to design and enforce economic pressure measures than any of its partners and allies. Where strategic alignment exists, as was the case for the Russia sanctions and export controls, U.S. support on intelligence sharing, analytic support, and enforcement efforts have been crucial to enable partners to amplify U.S. economic pressure efforts. (This section is primarily focused on enforcement as a technical and administrative matter, rather than the political question of whether the United States is willing to take enforcement actions against sensitive targets, which is addressed elsewhere.)

In addition to stronger resources, U.S. policymakers should anticipate that evasion will occur and that the target will develop adaptation strategies, as has happened in quite literally every single case. Maintaining economic pressure, therefore, requires a dynamic campaign to address circumvention and adaptation as it occurs. An economic pressure operation that is static is one that is alleviating pressure, not maintaining it. For many cases, a campaigning approach means a steady drumbeat of enforcement actions and new designations to target evasion networks, along

with a willingness to enforce against sensitive targets, such as the PRC. For technology denial cases, this may mean expanding restrictions to cover a wider range of activities, as was seen in the ecosystem controls case that started with controls predominantly on goods (e.g., chips and tooling) then expanded to cover investments and services transactions. For the trade coercion cases, effective enforcement may entail addressing transshipment or other tariff evasion techniques, though the primary adaptation method (diversifying trade away from the United States) may be difficult to counter.

The trade coercion cases received low marks on implementation primarily because of the informal nature of the political deals being negotiated to relieve tariff pressure. Enforcement is difficult if the two sides have disagreements over what was actually agreed, a common occurrence as countries began implementation of the handshake deals reached with President Trump. The trade coercion cases may also face implementation challenges arising from litigation contesting the lawfulness of certain tariffs, as indicated by the Supreme Court’s ruling that the tariffs based on international emergency economic powers are unlawful. The first China trade coercion case did result in a specific negotiated text, but the enforcement provisions of that agreement were never invoked to their fullest extent. The scale of the new tariffs may also create implementation challenges, and it is uncertain if

the U.S. government has capacity to address the volume of tariff evasion that may occur as it moves from a low tariff environment (where evasion is not incentivized) to a high tariff environment (where it is).

Durability

Three criteria relate to whether an economic pressure campaign is durable, including whether the campaign: 1) enjoyed international legitimacy; 2) was sustainable for the U.S. economy; and 3) led to systemic impacts on U.S. coercive economic power.

International Legitimacy

The international community supported or was neutral on the economic pressure campaign, and there was a connection between the use of economic pressure and upholding the rules-based international order.

Key Takeaway

- Engagement with the international community can support political signaling around U.S. coercive efforts.

The connection between international legitimacy and economic pressure success is not as strong as advocates for internationalism might hope. Just as many failed or mixed results cases involved international support as success cases. Strongly unilateral cases still tend more toward failure (Cuba embargo,

trade coercion), and there are no success cases without at least some international support. However, broadening an economic pressure coalition to the entire international community does not appear to guarantee success, as shown by the DPRK, Russia sanctions and export controls, and Iraq cases, all of which enjoyed international support and still struggled to change target behavior.

Multilateral efforts can have important political signaling effects, as in South Africa where multilateral sanctions amplified existing economic pressures on the apartheid government. The Libya case also benefited from strong international support and UN sanctions. Yet, the coercive effects of UN sanctions tend to be small. Embargoes are rarely comprehensive, usually targeting arms trade or a small number of high-impact sectors. In some cases, UN embargoes were voluntary, meaning that countries could opt out easily, or otherwise included substantial carve-outs to secure support from major economies. UN sanctions also rely on national-level implementation and enforcement, which has been historically weak as most other countries lack the institutional sanctions capacity of the United States. Seeking UN support may be helpful in building political support for an economic pressure effort, but it typically does not meaningfully extend the coercive effect that the United States can achieve working with a smaller handful of partners.

The lesson is not that working with other countries is unimportant. Indeed, the case studies show the opposite—that

International Legitimacy

	⊗ Policy Failure	⊖ Mixed Results	⊙ Policy Success
No international support	<ul style="list-style-type: none"> E Cuba S Iran (POST-JCPOA) T China (2025-PRESENT) North America Transatlantic 	<ul style="list-style-type: none"> T China (2018-2025) Global 	
Some international support	<ul style="list-style-type: none"> E Iraq 	<ul style="list-style-type: none"> S Venezuela (POST-2025) D Strategic trade controls Chinese telecommunications restrictions 	<ul style="list-style-type: none"> E Libya (WMD) D AI and chip ecosystem controls
Strong international support	<ul style="list-style-type: none"> S Venezuela (PRE-2025) DPRK D Russia export controls 	<ul style="list-style-type: none"> S Russia 	<ul style="list-style-type: none"> E South Africa Libya (TERRORISM) S Iran (PRE-JCPOA)

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unilateral actions tend not to work and at least some level of cooperation with other major economies is usually necessary. But the influential factor appears to be engagement with those countries whose participation is most meaningful to building economic pressure, rather than the full international community.

The role of the international community is nonetheless important in encouraging guardrails on the use of economic pressure, particularly related to the civilian impacts that economic pressure can cause. Despite attempts to craft smart sanctions, economic pressure is rarely contained to political elites, instead spreading throughout a target economy. Extreme inflation in Venezuela, difficulty in importing medical goods in the DPRK and Cuba, and depressed living standards in Iran are just a few of the economy-wide impacts that economic pressure can cause. As the Iraq case shows, severe civilian suffering that leads to defections from the sanctions campaign can erode economic pressure, in addition to raising moral concerns.

Sustainability for U.S. Economy

The economic pressure campaign did not cause negative impacts on the U.S. economy broadly or on influential groups of key economic stakeholders.

Key Takeaways

- Economic pressure that does not involve costs for the U.S. economy broadly, or for concentrated groups of domestic stakeholders, is most sustainable.

- A low tolerance for accepting costs will limit economic pressure options against larger economies where economic leverage is more balanced.
- The current trade coercion approach of the United States cuts against the grain of traditional economic pressure practice by potentially imposing high costs on the U.S. economy.

The United States traditionally has not implemented economic pressure operations resulting in substantial costs to the U.S. economy. Indeed, a core part of the received wisdom on economic pressure is to wield asymmetric points of economic leverage, with the goal of hurting the target more than yourself. As the United States typically pressured smaller economies, this practice did not undermine the overall ability to bring sufficient economic force to bear. It also meant that domestic opposition to economic pressure did not materialize, outside of specific impacted stakeholders.

The Russia sanctions case tested the viability of building economic pressure without accepting economic costs. Russia’s economy was the largest that the United States had sanctioned and a major energy producer. By carving out energy transactions essential for European energy security, the allied sanctions once again limited the imposition of costs on themselves, but the trade-off was undermining the potency of the economic pressure campaign. This calls into question whether the United States can use economic pressure persuasively against larger economies if it remains unwilling to accept costs for itself or allies. The energy

Sustainability for U.S. Economy

	⊗ Policy Failure	⊖ Mixed Results	✓ Policy Success
Strongly negative impacts on U.S. economy	T North America Transatlantic	T Global	
Negative but manageable effects on U.S. domestic economy	S Iran (POST-JCPOA) T China (2025-PRESENT)	S Russia D Strategic trade controls Chinese telecommunications restrictions T China (2018-2025)	D AI and chip ecosystem controls
No meaningful costs to U.S. economy	E Cuba Iraq S Venezuela (PRE-2025) DPRK D Russia export controls	S Venezuela (POST-2025)	E South Africa Libya (WMD) Libya (TERRORISM) S Iran (PRE-JCPOA)

E EMBARGO **S** SANCTIONS **D** TECHNOLOGY DENIAL **T** TRADE NUMBER OF CASES, MOST TO LEAST

crisis arising from the U.S.-Iran conflict, and the subsequent easing of U.S. sanctions on Iran and Russia, underscores this point.

The technology denial cases had a different pattern, as they all involved concentrated impacts on key industries that vocally opposed expanding controls. In the strategic trade controls, Chinese telecoms, and AI and chip ecosystem controls cases, there was a strong domestic debate about whether controls helped U.S. interests by slowing competitors down or harmed them by denying critical commercial opportunities in global markets. Controls were perceived to have costs for U.S. companies, and U.S. policy evolved over the decades to address the need to balance strict controls with overall U.S. leadership in global markets.

The trade coercion cases collectively may be an important test case of whether economic pressure measures that impose substantial domestic economic costs are sustainable. Impacts in the China trade (2018–2025) case were largely manageable, though the United States still needed to provide economic support to key impacted domestic stakeholders, including U.S. farmers. Polling also tends to show that Americans are more supportive of tariffs on China than on other economies.⁴⁸² However, tariff rates are substantially higher, more volatile, and broader in geographic scope now than they were in the first Trump administration. High tariffs alone may lead to negative domestic effects such as higher inflation. However, the trade coercion cases also involve high uncertainty, as tariffs are constantly raised and threatened for a range of unpredictable reasons, which may impact business confidence in the U.S. economy. Trade diversification may also damage U.S. economic interests, including by hampering U.S. competitiveness in global markets. These effects are still speculative, and the Trump administration has made a case that the economic benefits of the tariffs will outweigh any short-term costs. However, the risk of negative economic impact appears higher in the trade coercion cases than is typically the case in other U.S. economic pressure precedents.

Systemic Effects

The economic pressure campaign did not lead to countermeasures, retaliation, or other actions by states to alter economic systems in ways that erode the future economic leverage of the United States.

Key Takeaways

- Heavy use of economic pressure has led to adaptation and countermeasures, which at scale erode future U.S. coercive power. This effect is pronounced when considering the overall accumulation of major economic pressure operations utilizing a wide range of pressure instruments, for a diverse set of policy goals, and targeting an unprecedented number of countries.

- Assessing systemic risk requires a holistic analysis of potential impacts of the use of economic pressure on the economic and geopolitical orders and a consideration of counterfactuals in which economic pressure was not applied.

Economic pressure incentivizes the target to develop methods for engaging in economic activity outside the constraints of the restriction. At low levels, this does not negatively impact the United States' ability to wield economic pressure in the future. However, in several cases, the scale of adaptation led to systemic effects that are more broadly corrosive for U.S. economic power. These can occur whether or not the case succeeded, though they tend to be more associated with sanctions failure cases.

Among the most worrisome systemic effects are those that impact U.S. dollar-based sanctions, as they have the potential to undermine one of the more powerful economic pressure tools. The DPRK has become adept at evading financial sanctions through cyber theft and illicitly obtained digital assets. The financial sanctions on Russia, which included not just U.S. but also (to the surprise of the Russians) European measures, showed the risk of transacting primarily in Western currencies, leading to new urgency around efforts to develop alternative financial systems. This includes PRC efforts to develop a digital currency capable of facilitating transactions entirely outside of the traditional financial infrastructure. These efforts do not threaten the overall dominance of the U.S. dollar, but they do create meaningful pathways for sanctions circumvention that can quickly be scaled up as needed.⁴⁸³

Iran represents a case where innovations in sanctions evasion in one country are adopted by others. It pioneered evasion techniques, such as ship-to-ship transfers to evade oil sanctions, that are now used by the DPRK as well by the Russian shadow fleet to evade the oil price cap. Russia, which has been under technology-related restrictions since the Cold War, has well-established trade sanctions evasion techniques that were put to use in the Russia export controls case. Heavily sanctioned states learn from their own history, as well as from each other.

The Chinese telecoms and AI and chip ecosystem controls present a different sort of systemic effect due to their role in accelerating indigenous innovation. While the PRC has long supported strategic industries, the U.S. controls in these cases more fundamentally altered both government and private sector perceptions in China about the risks of relying on U.S. technologies.

The trade coercion cases have a high risk of systemic effect, including through political and private sector reactions to the coercion. The prime minister of Canada, one of America's closest economic and security partners, warned of the "rupture" in the international order caused by the trade coercion and related U.S. actions, in comments that resonated widely.⁴⁸⁴ The first China trade coercion case showed that the private sector will adapt to tariffs, even if the coerced government does not alter its behavior, an effect that will likely be more pronounced now that the United

Systemic Effects

	⊗ Policy Failure	⊖ Mixed Results	☑ Policy Success
High systemic effects	<ul style="list-style-type: none"> S DPRK T China (2025-PRESENT) North America Transatlantic 	<ul style="list-style-type: none"> S Russia D Chinese telecommunications restrictions T Global 	<ul style="list-style-type: none"> D AI and chip ecosystem controls
Some systemic effects	<ul style="list-style-type: none"> E Cuba Iraq S Iran (POST-JCPOA) D Russia export controls 	<ul style="list-style-type: none"> D Strategic trade controls T China (2018-2025) 	<ul style="list-style-type: none"> E Libya (WMD) Libya (TERRORISM) S Iran (PRE-JCPOA)
No systemic effects	<ul style="list-style-type: none"> S Venezuela (PRE-2025) 	<ul style="list-style-type: none"> S Venezuela (POST-2025) 	<ul style="list-style-type: none"> E South Africa

E EMBARGO **S** SANCTIONS **D** TECHNOLOGY DENIAL **T** TRADE
 NUMBER OF CASES, MOST TO LEAST

States has historically high levels of tariffs on all its major trading partners. That the current trade coercion has global scale is an aggravating factor heightening the risk of systemic effects, as both allies and adversaries consider countermeasures and diversification away from the United States.

Failing to use economic pressure also may have systemic effects. For example, the Russia sanctions may have spurred additional interest in alternative financial systems, but it arguably would have been worse for the international order to let blatant territorial aggression go unanswered. Allowing unchecked nuclear proliferation could be deeply destabilizing for global security. The AI and chip ecosystem controls arguably eroded part of the economic order, but for the purpose of advancing U.S. goals in the security order. Assessments of systemic risk must account for the interplay between the economic, geopolitical, and security orders and the risks to each of not deploying economic pressure.

Conclusion: An American Doctrine of Economic Pressure

DEVELOPING A DOCTRINE for economic pressure is intended to discipline and inform how U.S. policymakers consider the use of economic pressure alongside other instruments of national power.⁴⁸⁵ A doctrine is not a set of rigid policy prescriptions, nor is it a recommendation for or against any given set of actions. Instead, the goal of a doctrine is to provide a common framework for guiding the use of economic pressure, promoting strategic coherence and impact in its deployment.

A doctrine may include components at the strategic, operational, and tactical levels. At the strategic level, a doctrine would inform how and when economic pressure is used in support of political objectives. At the operational level, a doctrine would guide the deployment of economic pressure instruments, including how they work alongside military force, intelligence, diplomacy, and other instruments of national power. At the tactical level, a doctrine can discipline or enable specific actions taken in support of the operational objectives and the larger political goals. Doctrinal principles set forth here are aligned with the strategic and operational levels, along with a brief explanation that draws from the lessons of the case studies and the cross-case comparison of key criteria in Chapter 5.

Principles of an Economic Pressure Doctrine

Strategic Principles: Theories of Victory, Failure, and Restraint

At the strategic level, policymakers should set forth three theories: a theory of victory that articulates how economic pressure may aggregate into political effect, a theory of failure that determines when an economic pressure campaign has failed, and a theory of restraint that sets limits on the use of economic pressure for strategic, practical, or moral reasons. The three theories are conceptualized to work in tandem, with each on equal footing. Each, and all three together, must be continually assessed throughout the course of an economic pressure effort.

1

Principle One

A theory of victory sets a clearly defined foreign policy or national security goal, articulates the role that economic pressure can play in achieving that goal, and establishes conditions to determine when the foreign policy or national security goal and the economic pressure goal have been achieved.

Economic pressure is not applied for its own sake, but only in the pursuit of a larger foreign policy or national security

goal as articulated by the political leadership of the United States. Policymakers assess all available instruments of power and determine whether their combined use is sufficient to achieve the stated foreign policy or national security goal. If it is, they develop a clear theory of victory for the combined application of the levers of power to achieve that goal. If it is not, policymakers determine whether restraint or inaction poses a greater risk to U.S. interests than proceeding with a strategy that has uncertain prospects for success. Policymakers determine whether they are willing to use military force in support of the foreign policy or national security goal, and if so, what kind of force and under what conditions.

Both the foreign policy goal and the national security goal, as well as the role that economic pressure is to play in supporting that goal, are clearly defined. The guiding question is how economic pressure may be applied to productively alter the target's political incentive structure to make it more likely to accommodate the U.S. position. Successful strategic goal setting reflects a deep understanding of how economic pressure is intended to aggregate into political effect.

Conditions are set for determining when the foreign policy or national security goal has been achieved, as well as for when the economic pressure goal has

been achieved, recognizing that these two sets of conditions may be related but that success in one does not guarantee success in the other. Conditions are also set for when economic pressure may be relieved, either because goals have been achieved or because relief is assessed to better serve U.S. strategic interests.

2

Principle Two

A theory of failure sets conditions under which an economic pressure campaign will be deemed to be failing to meet its objectives.

Economic pressure campaigns can fail. A theory of failure determines in advance when an economic pressure campaign will be seen as failing to meet its objectives, either in terms of applying economic pressure or having that economic pressure translate into political effect. If an economic pressure campaign is failing, policymakers recalibrate the use of economic pressure accordingly. Other instruments of national power become more important if economic pressure is failing.

In some cases, economic pressure may succeed in causing economic damage to the target without such damage leading to political effect, or the success of an economic pressure campaign may be unable

to overcome broader challenges with a flawed foreign policy or national security effort. In such cases, policymakers re-assess the overall foreign policy or national security goals and strategy, including whether other levers of power may be more effective than economic pressure in achieving the stated goals.

3

Principle Three

A theory of restraint sets limits to determine what the United States should not do as part of its economic pressure campaign.

A theory of restraint sets out a rationale for limiting the use of economic pressure. Restraint may be warranted for strategic, practical, or moral reasons.

A theory of restraint for any particular economic pressure effort accounts for a hierarchy of U.S. foreign policy and national security goals, recognizing that economic pressure will be calibrated to account for other, higher-priority goals where such goals are present and that such calibration may limit the amount of economic pressure that the United States can apply. Economic pressure against U.S. allies and partners is limited and accounts for the overall strategic value of the U.S. alliance structure.

The systemic effects of additional economic pressure campaigns are considered as part of a theory of restraint, including the potential for significant counter-measures, retaliation, and adaptation. Negative systemic effects and the potential erosion of future U.S. economic leverage is weighed against the benefits of using economic pressure to pursue the stated foreign policy or national security goal. Policymakers also consider the systemic effects on other U.S. interests, including stability of the international order, if economic pressure is not deployed. The decision to apply, or not apply, economic pressure accounts for these economic, political, and security dynamics in a holistic manner.

A theory of restraint sets out what actions the United States is unwilling to pursue due to the anticipated impacts on the U.S. economy or the economies of U.S. partners and allies. This includes immediate negative economic shocks, as well as longer-term economic impacts such as the loss of U.S. competitiveness in advanced technology sectors. Policymakers determine what domestic economic costs they are willing to bear to pursue the foreign policy or national security goal and calibrate expectations for the scale and strength of economic pressure operations accordingly.

The ability to effectively enforce economic pressure measures is assessed. This assessment recognizes the large existing stock of economic pressure campaigns, the coordination between nations facing U.S. economic pressure, and the significance of existing efforts to counter U.S. economic leverage. It accounts for the administrative capacity to enforce measures, including that there are a large number of ongoing economic pressure campaigns and the reality that policymakers can prioritize only a small handful of efforts. It also includes a clear-eyed assessment of the political will to take enforcement actions against politically sensitive targets. If sanctions spoilers are present and the United States is unwilling to take enforcement actions against those spoilers, whether allies or adversaries, the theory of restraint articulates why and estimates the impact on the overall economic pressure effort.

Finally, moral arguments for restraint are incorporated. The decision to use economic pressure is couched in an ethical framework that considers civilian impacts and incorporates meaningful ways to minimize these impacts while concentrating pressure on political elites and key leverage points.

**Operational Principles:
Building Economic Pressure**

At the operational level, policymakers should design economic pressure

campaigns based on a holistic assessment of the economic leverage that the United States possesses relative to the target, accounting for each’s position in the global economy and for the target’s adaptation.

4

Principle Four

Structural leverage is the center of gravity for economic pressure.

The relative balance of economic leverage heavily influences whether, and if so to what extent, the United States can pressure another country through economic means. Determining the balance of economic power is done on a holistic, economy-wide basis, which includes but extends beyond the assessment of whether each country possesses specific economic chokepoints or points of influence. The coercive power inherent in each country’s relative position in the global economy is weighed alongside the balance of power within the bilateral relationship between the United States and its target. It also accounts for the possible alignment of other countries with either the United States or its target and the associated economic leverage that may provide.

5

Principle Five

Allies and adversaries are equally important for building economic pressure.

Economic pressure operations account for the nature of global markets, including whether U.S. allies or U.S. adversaries are significant economic partners of the pressure target. Economic pressure operations are designed to maximize the amount of market coverage for the economic activity to be restricted, regardless of whether that requires alignment from allies or adversaries or both. Policymakers recognize the potential for any country to be a sanctions spoiler, depending on the target and the economic pressure campaign.

Positive inducements for alignment are more productive than extraterritorial measures or enforcement threats. Where necessary, the United States assesses its willingness to take enforcement actions against politically sensitive countries, including both allies and adversaries. If it is not willing to take strong enforcement actions against certain countries, it designs operations to account for this vulnerability.

6

Principle Six

Target adaptation is inevitable and strategically consequential.

The United States expects the pressure target to have strong resolve to evade and otherwise resist economic pressure. It also expects that market participants outside of an economic pressure coalition will continue to engage in commercial interactions with the target, unless doing so subjects them to a credible threat of U.S. enforcement actions. Economic pressure operations account for target resolve and adaptation, including anticipating the need for robust monitoring and enforcement actions. At scale, target adaptation is understood to have the potential for systemic effects on America’s future economic pressure capabilities.

7

Principle Seven

Economic pressure is designed and executed as a campaign.

Economic pressure is understood to be a dynamic, iterative process that requires a campaigning mindset. Economic force is applied with a desired economic and political end state in mind, and it is recalibrated as needed based on target adaptation, market dynamics, and evolving geopolitical conditions to maintain a trajectory toward that end state. A campaign that is static is most likely to reduce, rather than maintain, pressure.

Effectiveness of economic pressure campaigns is continually assessed, with a distinction made between operations that successfully build economic pressure and the higher-level, strategic goal of translating economic pressure into political effect. Policymakers have processes and personnel to assess operational impact and strategic effectiveness on an ongoing basis.

8

Principle Eight

Economic pressure is calibrated to be productive rather than counterproductive.

Too little economic pressure does not yield political effects, but too much can have counterproductive effects. Based on an understanding of the target’s political incentive structure, economic pressure is calibrated to be persuasive enough to induce a positive change in behavior without exceeding the point at which it serves primarily to harden opposition to the United States. It also contemplates scenarios in which building or retaining economic ties with a target may allow the United States greater political influence than disrupting or severing ties via an economic pressure operation.

Economic pressure is deployed in a proportionate manner. Economic pressure operations that disproportionately lead to civilian suffering are seen as counterproductive and are not pursued.

9

Principle Nine

Economic pressure requires substantial government resources, efficient administration, and bureaucratic structures that facilitate integrated planning efforts.

Economic pressure is not costless for the U.S. government. Economic pressure operations are planned to account for available government resources to effectively implement, monitor, enforce, and evaluate the operations. The government

adopts a strategic planning mindset for economic pressure operations, projecting what foreign policy and national security challenges may arise over a longer time horizon and engages in a continuous planning process to prepare economic pressure contingency plans and align necessary resources to anticipated needs for future economic pressure campaigns.⁴⁸⁶

Where partners and allies are willing to align with U.S. policy, the United States empowers them to amplify economic pressure, including through intelligence sharing, training and capacity building, and joint planning efforts.

Implementing an Economic Pressure Doctrine

An economic pressure doctrine is not effective if it is just words on paper. U.S. policymakers must commit to the idea of a doctrine that truly shapes and disciplines the wielding of U.S. economic pressure. Specific actions that U.S. policymakers could take to implement an economic pressure doctrine include the following:

- **Develop an economic pressure strategy:** Each new administration should develop an economic pressure strategy that outlines how it intends to use economic pressure in furtherance of U.S. foreign policy and national security goals. The economic pressure strategy should flow from the *National Security Strategy*, taking its overall direction from it and developing a strategic vision for how economic pressure can support the goals laid out therein. It should describe the theories of victory, failure, and restraint that will guide the use of U.S. economic pressure generally, as well as the theories for major economic pressure operations ongoing or contemplated. An economic pressure strategy could be an independent strategy or could be integrated into a larger economic security strategy that also encompasses a wider range of positive statecraft tools intended to preserve and extend U.S. structural advantages in the global economy.
- **Align legislation and appropriations with doctrine:** U.S. Congress should consider a holistic review of the legal authorities and requirements for U.S. economic pressure efforts. Economic pressure authorities are voluminous, complex, and only occasionally aligned with the doctrinal principles identified in this paper. Legislation to align economic pressure programs with doctrine, including an emphasis on assessing the effectiveness of each program, can enhance the overall effectiveness of U.S. economic pressure efforts. Legislation also can provide guardrails on the use of economic pressure against U.S. allies. Congress may want to consider mandating the release of an economic pressure strategy or imposing reporting requirements to strengthen its oversight role. Congress should use its appropriations role to ensure that major economic pressure operations are sufficiently resourced, recognizing the ongoing, iterative nature of effective economic pressure campaigns.
- **Mandate annual reviews of economic pressure campaigns:** Either the administration or Congress should require an annual review of all economic pressure campaigns, assessing whether such campaigns align with the three strategic principles regarding theories of victory, failure, and restraint. Annual reviews can impose more discipline in regularly assessing the effectiveness of economic pressure campaigns, adjusting or terminating campaigns that are failing, and prioritizing limited government resources on the highest priority campaigns.
- **Strengthen strategic planning:** The government should establish dedicated functions and personnel for economic pressure strategic planning in each of the major economic agencies and in a centralized and empowered office that can integrate strategic planning across the interagency. Economic pressure operations tend to be reactive and ad hoc, making it difficult to infuse a disciplined, doctrine-based approach to planning and implementation. Longer-term efforts can enable earlier identification of structural economic vulnerabilities or other constraints that may impair the ability to build economic pressure. Dedicated staff that have the skills and expertise to engage in strategic planning can strengthen the ability of the United States to effectively wield its economic power in a manner consistent with the doctrinal principles suggested in this paper or other areas of doctrine that the government may develop.
- **Expand on an economic pressure doctrine:** The doctrinal principles suggested in this paper are a high-level starting point for an economic pressure doctrine. Additional work could expand on these principles to develop more detailed doctrine for each area of economic pressure operations, as well as integrating the economic pressure doctrine with doctrine that exists for other instruments of national power.

Conclusion

American power is at a critical juncture. While America remains the predominant economic and security power, its position is challenged by systemic competitors as well as a profound shift in the way that America views its role in the world. Economic power and competition are fundamental elements of how the emerging international order will be determined. The ability to persuasively wield economic pressure will have an outsized impact on how America engages with the world moving forward, allies and adversaries alike. The economic pressure doctrine laid out here is intended to inform the use of economic pressure in the future, as well as encourage a deep consideration of when economic pressure is, or is not, in America's strategic interests.

Appendix A: Methodology for Assessing Economic Pressure Cases and Combined Case Study Tables

To enable comparison across the 20 economic pressure cases included in this report, a methodology was developed to 1) provide each case with an overall rating of whether the stated foreign policy or national security goals were achieved and 2) provide an assessment of whether 11 criteria often associated with successful economic pressure were met.

Overall Policy Success Ratings

The overall case rating is the author's qualitative assessment of whether the stated foreign policy or national security objective for an economic pressure campaign was met, based on observable facts. These ratings were validated through consultation with other economic pressure experts, including in a workshop held to preview the report findings. The rating is based predominantly on whether the stated foreign policy or national security goal was met, even if other instruments of national power (e.g., diplomacy, intelligence, military force) may have been involved in achieving that success. For example, the Venezuela (post-2025) case receives a "mixed" rating, an improvement over the Venezuela (pre-2025) case rating of "failure," primarily because the military operation to extricate former President Maduro partially achieved U.S. goals of regime change. Unless an economic pressure case is divided into more than one period, the ratings are given for the entire duration of the case with an emphasis on the status in recent years.

The overall ratings denote whether the foreign policy or national security effort was a "success," "mixed," or "failure."

Criteria for Successful Economic Pressure

Each case is separately assessed on whether it met a set of 11 criteria that are often associated with successful economic pressure. These criteria, organized by category, are:

- **Strategic context**
 - Clear articulation of realistic goals
 - Backed by military force
- **Operational construction**
 - Effective chokepoint
 - Reversibility
 - Impact on political incentives
 - Allied alignment
 - Nonallied participation
 - Implementation
- **Durability**
 - International legitimacy
 - Sustainability for U.S. economy
 - Systemic effects

Specific guidance for how each criterion is assessed is below. As with the overall foreign policy and national security success rating, the ratings for criteria of successful economic pressure were based on the author's qualitative assessment in consultation with other economic pressure experts.

Importantly, the ratings for the 11 criteria of economic pressure best practices do not aggregate or otherwise roll up into the overall foreign policy and national security success rating. That is, there is no numerical relation between how many positive marks a case receives on the 11 criteria and whether or not it is rated as a foreign policy or national security "success." Indeed, it is possible that a foreign policy or national security goal can fail even if the economic pressure campaign has performed well. Instead, the criteria ratings are used to probe which criteria seem most impactful for each case in determining the role that economic pressure played in the overall foreign policy or national security effort. In some cases, one criterion outweighs all the others, and in other cases, the outcome is driven by a unique combination of the criteria. This complexity defies efforts to develop a precise numerical relationship between the criteria and the chances of success or failure. Thus, the analysis does not attempt to force precision where it does not exist and instead uses the criteria as a way to examine similar factors for each case and then to enable a qualitative criteria-by-criteria comparison across all 20 cases in chapter 5. The goal is to develop generally applicable principles for each criterion, which then can be assembled into a set of doctrinal guidance for U.S. economic pressure efforts.

Combined Case Study Tables

	Legacy Embargo Cases					Modern Sanctions Cases					Technology Denial				Trade Coercion				
	Cuba	South Africa	Libya	Iraq	North Korea	Iran	Russia	Venezuela											
			WMD	Terrorism		Pre-JCPOA	Post-JCPOA	Pre-2025	Post-2025	Strategic Trade Controls	Chinese Telecommunications Restrictions	AI and Chip Ecosystem Controls	Russia Export Controls	China	Global Trade	North America	Transatlantic		
Overall Foreign Policy Success Rating	✗	✓	✓	✓	✗	✓	✗	—	✗	—	—	✓	✗	—	✗	—	✗	✗	✗
	Failure	Success	Success	Success	Failure	Success	Failure	Mixed	Failure	Mixed	Mixed	Mixed	Success	Failure	Mixed	Failure	Mixed	Failure	Failure
Criteria of Economic Pressure																			
Strategic Context																			
Clear articulation of realistic goals	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Backed by military force	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Operational Construction																			
Effective chokepoint	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Reversibility	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Impact on political incentives	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Allied alignment	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Nonallied participation	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Implementation	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Durability																			
International legitimacy	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Sustainability for U.S. economy	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Systemic effects	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

Criteria Ratings

Strategic Context

Clear articulation of realistic goals

The overall foreign policy or national security goals were clearly articulated and realistic, and the role that economic pressure was to play in achieving those goals was also well articulated and realistic.

- = Foreign policy or national security goals and economic pressure goals were unclear or unrealistic.
- = Foreign policy or national security goals were clear, but expectation for economic pressure's role in achieving those goals was unrealistic.
- = Foreign policy or national security goals were clearly stated and realistic, as were expectations for the role that economic pressure would play.

Backed by military force

Military force supported the foreign policy or national security goals. This criterion is limited to direct, overt U.S. military action against the target. It does not include

covert or intelligence operations, cyber actions, or arms provisions to proxies.

- = Military force was explicitly ruled out.
- = Military force was understood to be an option for the policy goals.
- = Military force was used.

Operational Construction

Effective chokepoint

The United States effectively identified an asymmetric point of leverage or chokepoint and designed economic pressure measures to assert full control over that chokepoint.

- = No organic chokepoint existed; coordination with other countries/producers/suppliers was insufficient to build a coordinated chokepoint.
- = The United States had elements of a chokepoint or was able to work collaboratively with allies or other countries/suppliers/producers to assert control over a meaningful portion of the global market using economic tools alone.

- = The United States had full control over a chokepoint or had full coordination with other countries to create joint control.

Reversibility

Economic pressure was linked to changes in target behavior. When target behavior changed to align with U.S. policy, the United States offered relief from economic pressure.

- = Sanctions were sticky and unlikely to come off regardless of target behavior. There was no momentum toward negotiations related to economic pressure relief.
- = Change in target behavior may have been associated with some economic pressure relief. Negotiations may have occurred related to economic pressure relief but did not progress significantly or did not lead to behavior change.
- = Economic pressure relief was explicitly negotiated in exchange for a change in target behavior.

Impact on political incentives

The economic pressure brought to bear on a target was

designed to alter their political incentives and make it more likely that the target would accommodate U.S. demands, based on a deep understanding of the target's perception of its own interests and a realistic projection of how the target may respond to economic pressure.

- = Economic pressure was unable to productively influence target's political incentives or had counterproductive effects on these incentives.
- = Economic pressure was able to productively but partially influence target's political incentives.
- = Economic pressure productively influenced target's political incentives.

Allied alignment

The United States and its allies were aligned on an economic pressure effort, both in terms of assessment of a threat and the role that economic pressure could play in addressing the threat.

- = U.S. unilateral measures were imposed without allied support.
- = Partial alignment with U.S. allies.
- = Full coordination with U.S. allies.

Nonallied participation

Countries other than U.S. allies had incentives to align with U.S. economic pressure.

- = Significant market participants existed outside the U.S./allied coalition.
- = Market participants existed outside the U.S./allied coalition.
- = Nonallies were incentivized to participate in the economic pressure.

Implementation

The economic pressure campaign was effectively implemented; the government provided sufficient resources to execute the campaign, and the measures were effectively enforced.

- = Weak enforcement, lack of resources, or other implementation issues significantly undercut effectiveness of economic pressure.
- = Enforcement, resources, or other implementation issues impacted effectiveness of economic pressure.
- = Economic pressure measures were adequately enforced, resourced, and implemented.

Durability

International legitimacy

The international community supported, or was neutral on, the economic pressure campaign, and there was a connection between the use of economic pressure and upholding the rules-based international order.

- = Unilateral sanctions, no significant international support, no clear link to upholding international rules-based order.
- = Economic pressure had support from at least some other countries; the United States made a connection between use of economic pressure and upholding the international rules-based order.
- = UN sanctions or other indicators of broad international support for economic pressure campaign.

Sustainability for U.S. economy

The economic pressure campaign did not cause negative impacts on the U.S. economy broadly or on influential groups of key economic stakeholders. This includes short-term economic shocks as well as longer-term economic impacts, such as impacts on U.S. competitiveness and technology leadership.

- = Economic pressure had strongly negative effects on the U.S. domestic economy, or on specific stakeholders that were able to rally political support against the economic pressure effort.
- = Economic pressure had negative but manageable effects on the U.S. domestic economy.
- = Economic pressure had no meaningful costs to the U.S. economy.

Systemic effects

The economic pressure campaign did not lead to countermeasures, retaliation, or other actions by states to alter economic systems in ways that erode the future economic leverage of the United States (e.g., de-dollarization, acceleration of indigenous innovation, trade restructuring).

- = Economic pressure led to countermeasures, retaliation, or other actions by other states to alter economic systems to the disadvantage of the United States.
- = Economic pressure may have led to long-term systemic effects, but these are uncertain.
- = Economic pressure was not anticipated to have long-term systemic effects.

Appendix B: Key Sources

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