The Search for Balance: The United States and Multilateral Export Controls, 1946-1991

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CHAPTER 1:
Introduction and Literature Review

I. ARGUMENT OVERVIEW

During World War II, the United States drew upon its economic might to wage war against Nazi Germany and Imperial Japan. It implemented oil and gas embargoes against the Japanese empire. It passed the Lend-Lease Act to place U.S. industrial capacity in the service of the Allied war-making effort. And it froze assets and implemented sanctions to pressure adversaries to adjust their behavior. Never a substitute for war fighting, economic policies served as a crucial component of the American war-time arsenal.

As World War II ended, U.S. officials did not retire these economic tools, but rather adjusted and amplified them as elements of U.S. foreign policy throughout the Cold War. These officials believed they could harness the power of the U.S. economy to advance U.S. national security interests and counter Soviet influence. As in World War II, Cold War economic statecraft took a variety of forms, such as foreign aid and sanctions. Foreign aid is often referred to as the 'carrot,' a reward for pursuing policies aligned with U.S. goals. Sanctions are the complementary 'stick,' a punishment for working against U.S. interests. But these are not the only mechanisms of economic statecraft.

Export controls have long been another vital, but rarely analyzed, component of national security policy. While sanctions restrict financial transactions and are designed to persuade foreign actors to change their behavior, export controls restrict the trade of specific goods and are designed to directly alter a country's economic, military, and industrial capabilities. They target an adversary's supply chains and seek to disrupt its acquisition of strategic goods and technologies, especially technologies that possess military value.[1]

Few historians, however, have written about the use of export controls as an element of economic statecraft during the Cold War. As such, this thesis seeks to analyze the use and application of multilateral export controls throughout the Cold War and aims to answer the following research questions. How did the United States use multilateral export controls—institutionalized through the Coordinating Committee on Multilateral Export Controls (COCOM)—as a tool of economic statecraft during the Cold War? How did its approach change over the course of the Cold War? Did U.S. allies support these multilateral restrictions, and if so, why? Were U.S. export controls an effective policy to constrain the Soviet Union's war-making capabilities and technological development? Did they contribute to the weakening of the Soviet bloc and the collapse of the Soviet Union? If so, to what degree?

Drawing on a wide array of primary sources from the Department of States' *Foreign Relations of the United States* series to archival documents from the International Trade Administration held at the National Archives, this essay will argue that U.S. officials used export controls as a vital foreign policy tool to operationalize vague concepts like containment and détente. It will demonstrate that export controls were never a core driver of U.S. strategy but rather emerged in response to broader political developments. This work will additionally argue that Western Europeans supported multilateral export controls only under three conditions: when

[1] Jere W. Morehead, "Controlling Diversion: How Can We Convert the Toshiba-Kongsberg Controversy into a Victory for the West," *Northwestern Journal of International Law & Business* 9 no. 2 (1988): 12, https://scholarlycommons.law.northwestern.edu/cgi/viewcontent.cgi?article=1255&context=njilb., Jackie L. Masden, "Trade Regulation - Export Controls - CoCom Agrees on New Multilateral Export Guidelines Allowing Eastern Bloc to Purchase Low Level Technology Legally," *Georgia Journal of International and Comparative Law* 16, no. 1 (1986): https://digitalcommons.law.uga.edu/gjicl/vol16/iss1/8/.

facing pressure from the United States, when there was a shared belief in the controls' end goal, or when support for export controls advanced other European security and foreign policy goals.

There were, however, many times when the United States' European allies worked counter to U.S. interests and failed to back U.S. trade policies. European opposition to multilateral controls—particularly the stricter policies—resulted from: the fact that export controls sometimes ran counter to European economic interests, they were politically challenging to implement, and they conflicted with European reconciliation efforts. This work ultimately concludes that while export controls constrained Soviet military and technological developments in some key areas and limited the Soviet bloc's range of action, multilateral export control policy did not fundamentally alter the trajectory of the Cold War and often served as a signaling mechanism to communicate the United States' foreign policy agenda to its adversaries.

This work also fills a substantial literature gap in the historiography of U.S. economic statecraft during the Cold War. Addressing this gap not only enriches our understanding of the Cold War, but can also provide insights for how the United States cooperates with its allies today. The United States continues to rely on export controls as a key instrument of foreign policy, especially in times of significant overseas conflict such as Russia's 2014 invasion of Ukraine or during geopolitical tensions with the People's Republic of China. Thus, understanding changing Cold War policies can help current policymakers refine these policies and better understand their benefits and limitations. As Richard Cupitt and Suzette Grillot note in their post-Cold War analysis of export controls, "Understanding how COCOM members cooperated has wider implications for developing policy tools for the post-Cold War world."[2]

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[2] Richard T. Cupitt and Suzette R. Grillot, "COCOM is Dead, Long Live COCOM: Persistence and Change in Multilateral Security Institutions," *British Journal of Political Science* 27, no. 3 (July 1997): 4. https://www.jstor.org/stable/194122.

II. LITERATURE REVIEW

Few scholars have analyzed the United States' use of multilateral export controls during the Cold War, and even fewer have assessed the issue through a historical lens. As one scholar wrote in the early 1990s, "The Western allies' control of exports to the Soviet bloc, institutionalized in the Coordinating Committee (CoCOM), is a rarely analyzed and poorly understood aspect of the Cold War."[3] Little historical analysis has been added to the existing literature in the 30 years since this comment.

One of the earliest historical analyses of the subject is Gunnar Adler-Karlsson's 1968 study entitled *Western Economic Warfare, 1947-1967: A Case Study in Foreign Economic Policy*.[4] For many years, scholars viewed this work as the definitive historiography of COCOM's development and early multilateral export control policy. Adler-Karlsson lays out a detailed analysis of this period. He begins with a focus on the origins of this policy, the motives behind it, the development of the supporting institutions, and the reactions from different sectors of American society. Adler-Karlsson then pivots to a discussion of international reactions. Throughout this work, he argues that these export control policies were the main economic mechanism in the gradual escalation of the Cold War. But while some details of his analysis are now out of date in light of new documentary evidence, his work still serves as a useful account of this period and provides a vital compilation of relevant economic statistics from these early years.

Yoko Yasuhara is one of the few historians to expand upon and critique Adler-Karlsson's analysis. In her 1984 dissertation entitled "Myth of Free Trade: COCOM and CHINCOM, 1945-1952," she was the first to analyze many declassified U.S. and British sources on COCOM's early

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[3] Tor Egil Førland, "'Economic Warfare' and 'Strategic Goods': A Conceptual Framework for Analyzing COCOM," *Journal of Peace Research* 28, no. 2 (May 1991): 191-204. https://www.jstor.org/stable/424388.
[4] Gunnar Adler-Karlsson, *Western Economic Warfare, 1947-1967: A Case Study in Foreign Economic Policy*. (Stockholm: Almqvist & Wiksell, 1968).

development.[5] Yasuhara argues that these new sources shed light on other facets of COCOM's development and thus presents a number of arguments that contradict Adler-Karlsson and other scholars' earlier conclusions. First, she finds that export controls highlight the United States' willingness to "impose" its empire on Western Europe, rather than the empire by invitation that some Cold War scholars defend. Second, she argues that U.S. policymakers made ample use of crisis diplomacy to mold the re-building Western European economies to the United States' will. Third, Yasuhara posits that the U.S. export control regime simultaneously demonstrates the limits of U.S. power through its failure to prevent Soviet military development and inability to completely redirect European trade away from the Soviet bloc. In the years to follow, Yasuhara continued to analyze other facets of COCOM's early years, focusing specifically on angles that only became possible to analyze with recently declassified materials.

Tor Egil Førland is one of the few other historians writing on Cold War export controls. Like Yasuhara, his work focuses on the early years of the Cold War with particular attention on the Truman and Eisenhower administrations. His 1990 article on a disputed NATO embargo resolution assesses the Truman administration's approach and the challenges of pursuing economic statecraft.[6] A later analysis contrasts Dwight Eisenhower's export control policy with Harry Truman's approach.[7] Førland particularly addresses how and to what degree Eisenhower himself influenced the direction of U.S. policy. He highlights three of Eisenhower's core positions—his rejection of the strategic versus non-strategic good binary, his emphasis on whether the Soviet

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[5] Yoko Yasuhara, "Myth of Free Trade: COCOM and CHINCOM, 1945-1952." PhD diss., The University of Wisconsin-Madison, 1984. ProQuest, http://proxy01.its.virginia.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fdissertations-theses%2Fmyth-free-trade-cocom-chincom-1945-1952%2Fdocview%2F303313804%2Fse-2%3Faccountid%3D14678.
[6] Tor Egil Førland, "An Act of Economic Warfare? The Dispute over NATO's Embargo Resolution, 1950-1951." *The International History Review* 12, no. 3 (August 1990): 490-513. https://www.jstor.org/stable/40106228.
[7] Tor Egil Førland, ""Selling Firearms to the Indians": Eisenhower's Export Control Policy, 1953-54." *Diplomatic History* 15, no. 2 (1991): 221-244. https://www.jstor.org/stable/24912093.

Union benefited from East-West trade, and whether trade could be used to detach the communist satellites form the Soviet Union—and tracks their influence on subsequent policy developments. His work also provides insights into the early development of the U.S. export control regime and how U.S. policies interacted with Western European policies. Besides Førland and Yasuhara's work, however, few other historians have made a significant effort to evaluate, or re-evaluate, Cold War export controls since Adler-Karlsson's early analysis.

Beyond these more focused texts, the primary Cold War scholarship devotes little space to economic statecraft with even less attention directed to COCOM and the U.S. export control regime. For example, Melvyn Leffler and Odd Arne Westad's three-volume series *The Cambridge History of the Cold War* focuses heavily on the Cold War's political history with only occasional attention allocated to economic affairs.[8] Its limited economic discussions address how the United States used the international economic system to complement its military and political agendas and how various political crises impacted the global economy. Yet specific economic policies are rarely discussed outside of sanctions, the Bretton Woods system, and monetary policy.

The volume's sole mention of COCOM and export controls can be found in Jussi Hanhimäki's chapter entitled "Détente in Europe, 1962-1975." In this chapter, Hanhimäki argues that the détente of the 1960s and early 1970s was a European project at its core.[9] He follows this claim with a number of examples detailing how Western European countries led the process of détente and *Ostpolitik*. Throughout his analysis, Hanhimäki highlights Washington's increasingly limited control on various aspects of European policy, one of which was trade policy. Here,

[8] Melvyn P. Leffler and Odd Arne Westad, eds. *The Cambridge History of the Cold War* (Cambridge: Cambridge University Press, 2010).
[9] Jussi Hanjimäki, "Détente in Europe, 1962–1975," in *The Cambridge History of the Cold War, Volume II*, ed. Melvyn P. Leffler and Odd Arne Westad (Cambridge: University of Cambridge Press, 2010), 198.

COCOM is mentioned solely as a tangible example of a fora where the European powers pushed back against U.S. hegemony and worked to advance their own economic interests.

Other major Cold War scholars similarly devote little effort to the economic side of the Cold War. For example, Odd Arne Westad's book *The Cold War: A Global History* also dedicates a sole paragraph to COCOM and export controls.[10] Like Hanhimäki, he discusses COCOM in the context of détente and the changing nature of East-West trade. Meanwhile, while John Lewis Gaddis takes economic considerations into account in his 1972 book *The United States and the Origins of the Cold War, 1941-1947*, his later works focusing on the subsequent decades barely address economic policies.[11] For example, in 1982, Gaddis published a book entitled *Strategies of Containment: A Critical Appraisal of American National Security Policy During the Cold War*.[12] Economic considerations were vital aspects of containment, and export controls more specifically played a key role. Gaddis, however, barely touches on economic policy. There is minimal discussion of East-West trade—a useful and common metric when evaluating containment—much less any mention of specific policy instruments like sanctions and export controls.

In short, the major Cold War scholars fail to give proper attention to the role of economic policies on Cold War outcomes and relegate the task of analyzing specific economic policies to shorter, more peripheral analyses. This scholarly neglect can be due to a number of factors. Cold War economic policy more broadly can appear dry and unappealing to tackle; few would expect the public to gravitate toward a book addressing the issue. More specific to export controls, not many people outside its daily practitioners or the businesses facing the consequences of these

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[10] Odd Arne Westad, *The Cold War: A World History*. (New York: Basic Books, 2017).
[11] John Lewis Gaddis, *The United States and the Origins of the Cold War, 1941-1947* (New York: Columbia University Press, 1972).
[12] John Lewis Gaddis, *Strategies of Containment: A Critical Appraisal of American National Security Policy During the Cold War* (Oxford: Oxford University Press, 1982).

decisions knew COCOM existed much less how it operated and the global impact of its policies. As such, export controls simply do not feature prominently in the existing Cold War scholarship. The failure of the existing scholarship to account for the role of economic policies like export controls in these broader Cold War analyses has serious implications for how historians draw conclusions, make causal statements, and evaluate policy outcomes.

Much of the other commentary on Cold War export controls comes from other academic disciplines. Michael Mastanduno, for example, is a political scientist focused on political economy. He published a book in 1992 entitled *Economic Containment: CoCom and the Politics of East-West Trade* and has written many other pieces analyzing the issue.[13] His 1985 analysis on economic containment, for example, focuses on economic warfare and develops a sort of typology that played a key role in the development of the political science export control literature in the late 1980s and early 1990s.[14] His work overlaps with the end of the Cold War, the collapse of COCOM, and the policy debates surrounding the reincarnation of COCOM in the 1996 Wassenaar Arrangement. While Mastanduno's work includes relevant historical details, it is written through a political science and political economy lens with a focus on adjusting the U.S. export control regime for the post-Cold War era. This fails to fill the gap in the export control historiography.

Another political scientist focused on export controls is Gary Bertsch. His work similarly addresses how to adjust the U.S. export control regime for the post-Cold War era.[15] Bertsch is particularly interested in how export controls can be used to prevent nuclear and biological weapon

[13] Michael Mastanduno, *Economic Containment: CoCom and the Politics of East-West Trade* (Ithaca and London: Cornell University Press, 1992).
[14] Michael Mastanduno, "Strategies of Economic Containment: U.S. Trade Relations with the Soviet Union." *World Politics* 37, no. 4 (July 1985): https://www.jstor.org/stable/2010342.
[15] Gary K. Bertsch, "East-West Trade and Technology Transfer: Toward a Policy of Nonmilitary Free Trade." *SAIS Review* 4, no. 2 (Summer-Fall 1984): 93-104. https://muse.jhu.edu/article/434889/pdf.; Gary K. Bertsch, Richard T. Cupitt, and Steven Elliott-Gower, ed. *International Cooperation on Nonproliferation Export Controls: Prospects for the 1990s and Beyond*. (Anne Arbor: University of Michigan Press, 1994).

proliferation. Like Mastanduno, his work has some relevant historical details, but it has limited value to the historiography of Cold War economic statecraft.

The bulk of the literature on multilateral export controls, however, is from the legal field. Numerous law review articles analyze the legal intricacies that govern the U.S. export control regime. Harold Berman and John Garson, for example, focus on the legal impacts of the early export control legislation. In their 1967 article, they argue that the U.S. multilateral export control regime is in need of "drastic revision."[16] They argue against the prevailing divisions within the export control lists and the United States' refusal to adapt its export control policies to Western Europe's economic needs. They provide a series of recommendations designed to increase the efficacy of the export control regime and strengthen transatlantic relations in the process in light of the changing power dynamic between the United States and Western Europe.

Wende Wrubel, in contrast, focused on a later incident and wrote her law review article on the legal fallout of the 1987 Toshiba-Kongsberg incident, one of the most high-level breaches of the COCOM export control framework.[17] In her 2011 article, she details the illegal sale of Western technology to the Soviet Union and highlights the Japanese and Norwegian governmental response. She then transitions into an analysis of potential solutions that increase the efficacy of export control regimes.

Many law review articles focus on the transition from COCOM to the 1996 Wassenaar Arrangement. Karim Shehadeh, for example, addresses the implications of controls on encryption exports in his 1999 article.[18] Shehadeh argues that the United States' insistence on maintaining

[16] Harold J. Berman and John R. Garson, "United States Export Controls--Past, Present, and Future." *Columbia Law Review* 67, no. 5 (May 1967): 794. https://www.jstor.org/stable/1120967.
[17] Wende A. Wrubel, "The Toshiba-Kongsberg Incident: Shortcomings of Cocom, and Recommendations for Increased Effectiveness of Export Controls to the East Bloc," *American University International Law Review* 4, no. 1 (2011): https://digitalcommons.wcl.american.edu/cgi/viewcontent.cgi?article=1673&context=auilr.
[18] Karim K. Shehadeh, "The Wassenaar Arrangement and Encryption Exports: An Ineffective Export Control Regime that Compromises United States' Economic Interests." *American University International Law* Review 15,

stricter export controls for encryption products hurts the competitiveness of U.S. firms and fails to protect U.S. economic interests. He thus argues that Wassenaar must be turned into a binding export control regime with a stronger enforcement mechanism to ensure that the laws and regulations reflect market realities. While these and other legal articles analyze different facets of the issue and at times offer unique insights into the historical debate surrounding export control policy changes, these lawyers all focus on finding ways to increase the effectiveness of multilateral export control regimes rather than assess the broader historical themes this thesis aims to address.

Taken together, there are notable limitations to the literature on the Cold War's multilateral export control regime—especially in the historical realm. The existing commentary focuses on the early Cold War years. There is no comprehensive historical analysis on U.S. export controls during the Cold War nor is there much commentary on the substantial U.S. policy changes after the Eisenhower administration. This thesis aims to fill the literature gap.

III. EXPORT CONTROL BACKGROUND

At the core of America's Cold War export control policies lay a fundamental tension between free trade and national security, but this tension had not always existed. In the early decades of the 20th century, U.S. policymakers had ricocheted between protectionist and free trade policies. Yet coming out of World War II and witnessing how protectionist policies had exacerbated the adverse consequences of the Great Depression, U.S. politicians increasingly defended free trade. They argued that it promoted global economic prosperity, protected long-term U.S. interests, and provided tangible benefits for everyday Americans. They also believed free

no. 1 (1999): https://digitalcommons.wcl.american.edu/cgi/viewcontent.cgi?article=1264&context=auilr&httpsredir=1&referer=.

trade was integral in the fight against Communism.[19] As such, they advocated for policies that minimized barriers to international trade, like the elimination of tariffs, quotas, and subsidies. But not all U.S. officials supported unrestricted free trade. Some found that these trade interactions conflicted with U.S. national security interests. They argued that the United States' free trade policies were providing its enemies with the materials and technologies to facilitate their military development. Such an outcome, they believed, threatened U.S. security. Consequently, tensions emerged. Free trade advocates within the U.S. business community and the Department of State frequently clashed with the national security hawks within the Department of Defense and the intelligence community who were hyper-focused on fluctuations in Soviet military capabilities.

Export controls emerged as a potential solution for this tension. The controls carved out a sort of caveat to free trade, allowing trade that did not directly threaten U.S. national security interests to continue while restricting the export of goods that facilitated the military development of U.S. adversaries. In practice, this meant there was a spectrum of export control policies that tried to balance between free trade and national security interests. Where policymakers came out on this balance often depended on two factors. First, it depended on the state of the United States' political relationship with the Soviet Union.[20] During a relaxation in tensions—such as détente in the late 1960s and early 1970s—U.S. policymakers favored softer export controls while tighter controls typified more contentious periods—such as the Eisenhower administration's escalation to rollback communism. Second, the balance depended on institutional and bureaucratic preferences. The Department of Defense, for example, favored more expansive controls out of an abundance of caution while U.S. private firms often favored more liberalized controls because they better

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[19] Douglas A. Irwin, *Clashing Over Commerce: A History of US Trade Policy*, (Chicago: University of Chicago Press, 2017), 518.
[20] Mastanduno, "Strategies of Economic Containment," 517.

aligned with business interests.[21] Export controls were far from a perfect solution for this tension, but they at least served as a realistic attempt to find an operational middle ground.

In this spectrum between loose export controls favoring free trade and strict controls favoring national security, U.S. officials used export control lists to determine the direction of U.S. export control policy. These export control lists catalogued the goods and technologies that were forbidden from being exported to the Soviet bloc. They were highly secretive documents and only recently declassified files have begun to reveal their Cold War contents. Throughout the Cold War, they underwent many revisions, as countries and firms alike lobbied to get certain goods added or removed based on changing security circumstances and business interests. Fluctuations in these lists also provided critical insights into U.S. military priorities and technological advancements. As a result, they became frequent targets of communist espionage.

The export control lists were divided into a number of sub-lists. The first proposal, for example, had two sub-lists: list 1A and list 1B.[22] List 1A included 163 items slated for total embargo because they directly contributed to the Soviet bloc's war-making capabilities. It included items like bismuth metal and tanker vessels. List 1B included 290 items marked for quantitative control rather than complete embargo; these items were less strategic but still important to the development of Soviet heavy industries. It included items like steel and merchant vessels.[23] Lists 1A and 1B were the first in a long line of attempts to balance between free trade and national security through the use of strategic goods lists.[24]

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[21] Mastanduno, "Strategies of Economic Containment," 527.
[22] The 1A and 1B lists served as one of many iterations of the export control lists. Another prominent set of lists were the International Lists I, II, and II, which are discussed in Chapter 2. A copy of the International Lists I, II, and III can be found in Appendix A.
[23] Yasuhara, "Myth of Free Trade," 15.
[24] For more discussion on the different export control lists including discussion on national lists versus international lists versus Battel Act lists, see: Adler-Karlsson, *Western Economic Warfare, 1947-1967*.

Beyond the lists, export controls can be placed in two categories. One category is unilateral export controls. This occurs when a country, like the United States, uses national policy alone to restrict the exportation of certain goods to another country, like the Soviet Union, or a bloc of countries, like the Soviet bloc. The second category is multilateral export controls. This occurs when the United States works with its allies to ensure everyone has coordinated national-level policies that will uniformly restrict the exportation of the specified good to the other country or bloc of countries. Under a multilateral export control regime, a targeted country like the Soviet Union will have a much more difficult time finding suppliers to provide the forbidden good, and its economy, at least in theory, will face significant adverse effects.

There are tradeoffs between pursuing unilateral versus multilateral controls. Unilateral controls are easier to implement and can be better tailored to domestic interests. They can also successfully signal support or disapproval for an adversary's policies. But while logistically easier, they are far less effective than multilateral controls at damaging the adversary's economy and restricting its military development. Multilateral controls also have a greater ability to influence the trajectory of the adversary's domestic and foreign policy. These controls, however, are not a bulletproof solution either. When the United States engages in multilateral controls, it places its national security in the hands of an international coalition; it must depend on its partners' will and capabilities to prevent technology leakage.[25] When values and goals align, this creates a powerful bloc with the capacity to influence behavior in the international arena. But when conflict arises, significant vulnerabilities emerge that can leave the United States in a vulnerable position.

Cold War multilateral export controls were almost exclusively targeted toward the Soviet Union and Soviet bloc countries. The United States and its allies occasionally used controls against

[25] Morehead, "Controlling Diversion," 287.

the People's Republic of China, but it was not until the post-Cold War years that U.S. policymakers adjusted their use of these policies to target other adversaries and global issues. As such, COCOM—the informal international body that governed the creation and implementation of multilateral controls during the Cold War—was primarily a U.S. and Western European project targeting the Soviet bloc and Soviet influence.

In the process of constructing and implementing the United States' export controls during the Cold War, there were multiple influential actors that impacted the direction of U.S. policy. The first came from partners and allies—particularly the United States' Western European allies. These countries were able to influence the direction of U.S. policy through their participation in the international organizations tasked with negotiating, implementing, and enforcing multilateral controls. European interests were far from homogenous, and they fluctuated greatly over the course of the Cold War. Most often, however, they served as one of the most prominent voices advocating for the liberalization of export controls because they believed the controls were inhibiting Europe's economic recovery.[26] This often put the Europeans in conflict with U.S. interests and paved the way for some of the Cold War's high-profile technology leaks.

The second source of influence came from U.S. executive agencies. No single agency had the sole authority over U.S. export controls. Instead, the Departments of State, Commerce, and Defense split the responsibility. As a result, there was a marked lack of cohesion in U.S. policy because each department advocated for policies that furthered organizational goals.[27]

The third influential actor came from domestic business interests. U.S. firms were at the forefront of policy implementation and faced the brunt of policy fluctuations. Sudden legislation shifts could upend business and make international investments unprofitable. Thus, while U.S.

[26] Mastanduno, "Strategies of Economic Containment," 527.
[27] Masden, "Trade Regulation - Export Controls," 208.

business interests at the start of the Cold War were more willing to acquiesce to national security needs, as time progressed, they become some of the foremost advocates for liberalizing export controls.[28] This translated to concerted lobbying efforts designed to influence the direction of U.S. policy and added another element of uncertainty in an already turbulent process.

The fourth source of influence comes from Congress. Congress was the primary architect in developing the legislative architecture that governed the U.S. export control regime. It had a significant ability to influence the direction of U.S. policy, and, through the power of the purse, had the ability to constrain or expand executive agency operations. While the members of Congress were influenced by various lobbying efforts, each member also injected their own influence, as driven by constituent needs, party lines, and personal opinions. This injected another level of uncertainty into the policymaking process.

Each of these sources of influence impacted policymaking and implementation in different ways, but the most tangible and visible example of their influence is through the strategic goods lists. International, departmental, business, and congressional interests had a significant ability to influence the presence or absence of various goods on the lists. This involved everything from dedicated efforts to shrink the overall size of the list to more targeted lobbying campaigns to add or remove a specific good. During the various phases of the Cold War—from containment to détente to the confrontational approach of the Reagan administration—these influences would come in to play at different points and in different ways.

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[28] Michael Mastanduno, "The United States Defiant: Export Controls in the Postwar Era." *Daedalus* 120, no. 4 (Fall 1991): 96. https://www.jstor.org/stable/20025405. See the following source for more information on the role business interests played in export controls and the development of various tools of economic warfare. Mastanduno, “Strategies of Economic Containment,” 522.

IV. THESIS STRUCTURE

The following chapters will be broadly structured around three pieces of Cold War legislation that governed the evolution and development of the U.S. multilateral export control regime. These pieces of legislation will function as the central tenants of this thesis because they serve as critical markers for evolutions in U.S. policy.

Chapter Two will assess the early years of the post-World War II U.S. export control regime. It will begin by analyzing the development of COCOM and will then give particular attention to the 1951 Mutual Defense Assistance Act, which included significant provisions on export controls. Chapter Three will focus on the Export Administration Act of 1969. It will address how this piece of legislation marked a critical turning point from the 1951 legislation and the various influences that lead to this policy change. Chapter Four will focus on the Export Administration Act of 1979 and will include a short analysis of the 1987 Toshiba-Kongsberg incident as evidence of the weaknesses in the U.S. export control approach. The fifth and final chapter will analyze the implications of all these changes on the termination of COCOM at the end of the Cold War and the subsequent development of the Wassenaar Arrangement in 1996. This chapter will then offer a final assessment on how export controls influenced the economic trajectory of the Cold War and why the United States continued to use this policy instrument throughout the conflict. A conclusion will summarize the chief findings of the essay and reiterate the argument of the essay, namely, that the United States used export controls as a vital component of its Cold War statecraft.

CHAPTER 2:
The Origins of COCOM and the 1951 Battle Act

I. INTRODUCTION

At the end of World War II and during the first few years of the Cold War, U.S. officials had no intention of creating the world's first multilateral export control regime. They initially turned to trade controls as an economic necessity in the face of post-war shortages and the demands of Western Europe's economic recovery. But as conflict with the Soviet Union escalated, these controls evolved into one of the foundational pillars of U.S. Cold War economic statecraft, necessary to defend U.S. national security interests, slow Soviet military developments, and implement strategies like containment and détente.

This chapter focuses on the origins of COCOM and the 1951 Battle Act. It highlights how the United States weaponized its economic and political might to pressure European countries into greater compliance with U.S. policies and turn this cooperation into a powerful tool to restrict Soviet technological and military development. It also explains why Western European countries reluctantly agreed to work with the United States to create and implement these trade controls. In principle, Western European governments agreed that trade controls were necessary for mutual security, but U.S. interests and export control goals sometimes put U.S. policy in direct conflict with European economic and political interests.

II. WORLD WAR II AND HISTORICAL ROOTS

Although for much of its history the United States had rarely engaged in international economic statecraft, World War II served as a critical pivot point and provided U.S. officials with their first major opportunity to test and develop its fundamentals. These wartime years emphasized to U.S. and other global leaders how economic and trade policies could be used to advance state interests and project power within the international arena.

Given the importance of trade policies for U.S. national security, before World War II had even come to a close, the U.S. military had already begun planning to adjust wartime trade controls for the post-war era. The Joint Chiefs of Staff first raised the issue with Secretary of the Navy James Forrestal and Secretary of War Robert Patterson in November 1945. They requested more extensive study of trade controls because they believed that controls "would prevent the diminishing of our own [U.S.] war potential or the increase of the war potential of possible enemies." The study results and subsequent policy discussion did not happen until July 1946 at a State-War-Navy Coordinating Committee (SWNCC) meeting.[1]

At the July 1946 meeting, the committee concluded that the United States needed a control system that would ensure it did not run out of critical materials and that vital technological information and inventions were not exported to U.S. adversaries. Given this need, the committee recommended further study to determine the appropriate means and methods of implementing such a policy. Much to the consternation of the group's military representatives, the additional review led SWNCC to conclude in early 1947 that such actions were best dealt with by the National Security Resources Board and the National Munitions Control Board and thus determined that no further action was needed.[2]

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[1] "The Secretary of War (Patterson) and the Secretary of Navy (Forrestal) to the Chairman of the State–War–Navy Coordinating Committee (Hilldring)," July 1, 1946, *Foreign Relations of the United States* (hereafter *FRUS*), 1946, vol I, General; The United Nations, Document 594.; Yasuhara, "Myth of Free Trade," 55. See Yasuhara's commentary on SWNCC's role in formulating early export control policy. SWNCC served as a precursor to the National Security Council (NSC). It acted as the U.S. government's primary committee for formulating national security policy and dealing with high-level political and military issues. For more on SWNCC, see: University Library Microform: State-War-Navy Coordinating Committee Policy Files, 1944-1947, last accessed January 20, 2023, https://www.albany.edu/~dlafonde/MicroWebpage/state-war_navy1944-194.html.
[2] Yoko Yasuhara, "Myth of Free Trade: COCOM and CHINCOM, 1945-1952." PhD diss., The University of Wisconsin-Madison, 1984. ProQuest, 55-56.

The military's push for extended controls after World War II also found itself in conflict with the prevailing free trade and decontrol trends of the time. The Roosevelt administration believed it was necessary to tie together European countries and the Soviet Union in a new rules-based international system to achieve stability on the continent and facilitate its political and economic recovery. In the political realm, for example, President Franklin D. Roosevelt advocated for the creation of the United Nations, which would serve as a forum to help manage and enforce the post-war peace. In the economic realm, Roosevelt backed the newly-created Bretton Woods system, which established the International Monetary Fund and the International Bank for Reconstruction and Development—two institutions that would play critical roles in Europe's post-war economic recovery and twentieth-century global development. The Bretton Woods system also pegged all other currencies to the U.S. dollar at a fixed exchange rate.[3]

The establishment of these new organizations provided the broad institutional structure to place the United States and its allies at the helm of the new system, but there were many policy details that needed adjustment to better align national-level policy with these new goals. In the world of trade policy, this meant Roosevelt and his supporters argued for the elimination of trade barriers and advocated for the termination of wartime controls. They believed the existing export controls were inhibiting the functioning of their new international order. As such, they actively lobbied to deconstruct the destructive trade barriers of the 1930s.[4] The political winds were blowing in Roosevelt's favor and many were ready to support this new international order. As such, Congress found itself in a position ready to endorse the administration's goals and passed

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http://proxy01.its.virginia.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fdissertations-theses%2Fmyth-free-trade-cocom-chincom-1945-1952%2Fdocview%2F303313804%2Fse-2%3Faccountid%3D14678.

[3] Odd Arne Westad, *The Cold War: A World History*. (New York: Basic Books, 2017), 66-67.

[4] Douglas A. Irwin, *Clashing Over Commerce: A History of US Trade Policy*, (Chicago: University of Chicago Press, 2017), 456-457.; Westad, *The Cold War*, 69.

legislation to terminate war-time trade controls.[5] Such efforts contributed to the broader momentum to build more open trade networks and integrate the world's economies.

While President Harry Truman shared Roosevelt's desire to prioritize European recovery to avoid a repeat of the turbulent interwar years, he did not understand nor share Roosevelt's belief that the Soviet Union must be tied to this new international system if stability was to reign.[6] He saw the Soviet Union as a threat to U.S. interests and wanted to constrain its global influence rather than provide a platform for it to grow. Truman and his foreign policy team thus latched onto George Kennan's policy of containment. This new lens in which they viewed all foreign policy and national security decisions led the Truman administration to increasingly interpret the United States' prioritization of European recovery to mean the prioritization of *Western* European recovery. In contrast to Roosevelt's vision, officials in the Truman administration believed trade controls could be a key policy instrument to facilitate this narrower vision of European recovery, protect U.S. security and economic interests, and implement a policy of containment.

III. LAYING THE GROUNDWORK FOR THE FIRST PEACETIME USE OF EXPORT CONTROLS

Officials in the Truman administration did not intend to create an international export control regime when they turned to trade controls as a vital tool in implementing their European recovery agenda. Their initial vision was shortsighted and never intended to last for the duration of the century. Nevertheless, they made two foundational decisions that paved the way for the development of a more formal and long-lasting multilateral export control regime: the decision to

[5] Yasuhara, "Myth of Free Trade," 52.
[6] Westad, *The Cold War*, 65, 69.

pursue peacetime export controls and the decision to link U.S. recovery aid with export control compliance.[7]

This first decision to pursue the first ever use of peacetime export controls emerged in December 1947 from a Truman administration National Security Council (NSC) meeting. During this meeting, the NSC determined that the United States must terminate any exports in critically short supply within Europe to the Soviet bloc and block exports that would "contribute to the Soviet military potential."[8] As the Cold War progressed and the immediate post-war shortages abated, this two pronged initial justification—export controls for European recovery and export controls for U.S. national security—gave way to a predominately national security-based argument that continues to this day.[9] Regardless of the justification, this decision marked a pivotal moment in the development of U.S. economic statecraft; never before had the United States tried to weaponize trade during peacetime and on such a large scale.

The second pivotal decision came with Section 117(d) of the 1948 Economic Cooperation Act, or what is more commonly known as the Marshall Plan, in which Congress linked U.S. assistance with export control compliance. While the American people were initially willing to

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[7] In one of Yasuhara's articles, she points out three similar decision gates. Yasuhara argues that a December 1947 NSC meeting and Section 117(d) of the Economic Cooperation Act as well as a March 1948 cabinet decision "became the basis of U.S. negotiations with European countries." This work departs from her conclusion and finds that the March 1948 cabinet decision did not alter the U.S. position in any substantial manner; the other two changes were the main foundational elements of the U.S. negotiating position. See: Yasuhara, Yoko. "The Myth of Free Trade: The Origins of COCOM 1945-1950." *The Japanese Journal of American Studies* no. 4 (1991): http://www.jaas.gr.jp/jjas/PDF/1991/No.04-127.pdf.

[8] "Report by the National Security Council," December 17, 1947, *FRUS*, 1948, vol IV, Eastern Europe; The Soviet Union, Document 328.

[9] For evidence of this increasingly national security focus, see: "Mr. William L. Clayton, Adviser to the Secretary of State, to Senator Arthur H. Vandenberg," April 22, 1948, *FRUS*, 1948, vol IV, Eastern Europe; the Soviet Union, Document 342.; "Report by the Ad Hoc Subcommittee of the Advisory Committee of the Secretary of Commerce," May 4, 1948, *FRUS*, 1948, vol IV, Eastern Europe; the Soviet Union; Document 343. "Current Economic Developments," June 14, 1948, *FRUS*, 1948, vol IV, Eastern Europe; the Soviet Union, Document 348.; For commentary on this national security approach, see: Harold J. Berman and John R. Garson, "United States Export Controls--Past, Present, and Future." *Columbia Law Review* 67, no. 5 (May 1967): 794-795. https://www.jstor.org/stable/1120967.; For discussion on security justifications for the 2022 semiconductor export controls, see: Matthew Reynolds, "Assessing the New Semiconductor Export Controls," CSIS, November 3, 2022, https://www.csis.org/analysis/assessing-new-semiconductor-export-controls.

blindly support European recovery, as Cold War competition with the Soviet Union escalated, Americans and their congressional representatives increasingly came to view U.S. aid to Western Europe as incompatible with Western Europe's ongoing trade with the Soviet bloc.[10] The linkage of control compliance with military and economic support added a coercive element to U.S. policy. European countries were not in a position to reject U.S. military and economic assistance simply to protect their sovereignty on trade policy. Thus, the United States' economic power and Europe's vulnerability in these early Cold War years put the United States in a unique position to impose its policy preferences on the continent. In practice, however, there was little enforcement of this provision because export controls were a relatively new policy area for U.S. officials. This made it practically difficult to implement and enforcement would have caused a diplomatic uproar at a time when the United States wanted to preserve strong relationships with its Western European allies. As such, Section 117(d) mainly served as a reference point in later export control negotiations and a signal to Western Europe that its actions needed to change.

These decisions resulted in two main developments. First, they lay the groundwork for the necessity of a multilateral approach. During the initial implementation of the export control framework, the United States had a preponderance of economic power; no other European country or bloc of European countries was remotely close to competing with the might of the U.S. economy. If the United States imposed an embargo on a certain product, it would be very hard for the targeted country to source adequate supplies from the remaining suppliers. But as European economies recovered and export markets became necessary for economic growth, European officials increasingly took issue with the United States' approach and demanded a greater say in

[10] 80 Cong. Rec. H3267 (daily ed. April 9, 1947).; Yasuhara, "Myth of Free Trade," 58.; Yasuhara, "Myth of Free Trade," 129.; The following document also notes the powerful role of public opinion and Congress in pushing for stricter trade controls: "The Secretary of State to the Embassy in Poland," April 9, 1949, *FRUS*, 1949, vol V, Eastern Europe; the Soviet Union, Document 43.

policy development and implementation. As a result, the United States could not simply ignore European demands and pursue unilateral action, as unilateral action would have hurt the competitiveness of U.S. businesses more than damage the Soviet economy. If the United States wanted to continue using trade controls to advance its foreign policy agenda, U.S. officials would need to cooperate and coordinate with their allies through some sort of multilateral framework. This necessity pushed U.S. officials to pursue a multilateral approach throughout the remainder of the Cold War.

Second, these decisions alongside the United States' economic and political power demonstrated the dominant role the United States would play in subsequent negotiations. It enabled U.S. officials to initiate bilateral and multilateral discussions, contributed to the development of a multilateral regime on U.S. terms, and ensured discussions centered around the U.S. negotiating position, thereby making U.S. proposals the default or status quo option. But while the United States' influence was large, it was not unlimited. As the following chapters demonstrate, there were notable limits to the United States' ability to dictate its preferences and develop a multilateral export control regime that fully aligned with U.S. interests, even as it dominated export control policy throughout the Cold War years.

IV. U.S. EFFORTS TO BUILD THE WORLD'S FIRST MULTILATERAL EXPORT CONTROL REGIME

When U.S. officials began coordinating export controls with their European counterparts following the passage of the Marshall Plan, there were no plans to build a long-term export control framework nor did U.S. officials intend to codify any agreement with their European allies. These initial discussions were simply designed to persuade reluctant allies to cooperate with U.S. efforts to restrict materials that could facilitate immediate Soviet military development and protect the competitiveness of U.S. businesses. Within three years, however, U.S. and European officials had built the foundations and framework for the world's first multilateral export control regime—a regime that continues, albeit in a modified form, to this day. There were three main developments that facilitated the creation of COCOM: the initial multilateral negotiations on the 1A lists that led to the formal creation of COCOM, the Korean War as a turning point for 1B list cooperation, and the 1951 Battle Act.

1A Controls and Initial COCOM Negotiations

As early as March 1948, the United States called for international cooperation on export controls to prevent European countries from re-exporting American materials to the Soviet bloc, but the real impetus for multilateral negotiations centered around the increasingly urgent need for European cooperation on the 1A list.[11] The 1A list emerged in May 1948 from a Department of Commerce working group. This group had been tasked by Secretary of Commerce Charles Sawyer to formulate recommendations about the use of economic instruments of statecraft. Focusing on East-West trade, the group proposed a framework of four priority classes in which all commodities could be divided.[12] These classes were structured by necessity of control with Class 1 referring to commodities that had "direct military significance" and Class 4 referring to the "so-called "non-essential items.""[13] By the end of the summer of 1948, these priority classes had evolved into the 1A and 1B lists. The 1A list referred to materials or equipment that could "contribute to the war

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[11] See the following sources for some of the earliest calls for cooperation: "Memorandum Prepared in the Department of Commerce," March 9, 1948, *FRUS*, 1948, vol IV, Eastern Europe; the Soviet Union, Document 336.; "Memorandum by the Secretary of State," March 26, 1948, *FRUS*, 1948, vol IV, Eastern Europe; the Soviet Union, Document 338. Note that items related to atomic energy were handled separately and were not part of typical export control negotiations. For evidence of this distinction, see: "The Secretary of State to the Embassy in France," August 27, 1948, *FRUS*, 1948, vol IV, Eastern Europe; the Soviet Union, Document 359.
[12] As will be highlighted in subsequent chapters, early export control discussions focused on "commodities" or specific goods. It was not until the later years of the Cold War that the focus pivoted to intangible items, technologies, and other products.
[13] "Report by the Ad Hoc Subcommittee of the Advisory Committee of the Secretary of Commerce," May 4, 1948, *FRUS*, 1948, vol IV, Eastern Europe; the Soviet Union; Document 343.

potential of the Soviet Bloc to such an extent that no export of such material or equipment should be permitted." The 1B list, in contrast, referred to materials or equipment that were "highly important from the point of view of their contribution to the war potential of the Soviet Bloc and of which the high strategic characteristic is directly related to the quantitative extent to which they may be exported"; items on the 1B list were placed under quantitative control.[14]

U.S. officials at the Departments of Commerce and State quickly came to realize that multilateral cooperation on trade controls was necessary if 1A controls were to have any effect. One report from a Department of Commerce advisory committee demanded that countries participating in the European Recovery Program must "prohibit the export to the Soviet sphere of the same list of commodities that the US will not export for security reasons to that sphere."[15] Without this broader cooperation, the Soviet Union could easily obtain these prohibited items from European re-exportation, thereby hurting the competitiveness of U.S. businesses and threatening U.S. national security.

While the Truman administration relied on a number of officials across the Departments of State and Commerce to negotiate this multilateral cooperation, Sawyer and Secretary of State George C. Marshall leaned primarily on W. Averell Harriman and Paul G. Hoffman to broach the issue with European officials and manage the subsequent negotiations. Throughout World War II, Harriman had been a vital asset to the Roosevelt and Truman administrations. He served as the

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[14] "Memorandum from the U.S. Delegation Definitions of the U.S. 1A and 1B Lists," May 30, 1950, COCOM Doc No 58, Records of the International Trade Administration, Bureau of Foreign Commerce Office of Export Control Policy Planning Division, Records of the Coordinating Committee (COCOM) Subcommittee on Export Control, 1949-1959, Transshipment Controls Questionnaire 1953 to Belgian Controls, Box 3 of 3, National Archives at College Park, MD (hereafter NACP).; "The Secretary of State to the Embassy in France," August 27, 1948, *FRUS*, 1948, vol IV, Eastern Europe; the Soviet Union, Document 359.

[15] "Current Economic Developments," June 14, 1948, *FRUS*, 1948, vol IV, Eastern Europe; the Soviet Union, Document 348.; See the following source for the Department of Commerce calling for multilateral cooperation: "The Secretary of Commerce (Sawyer) to the Secretary of State," May 20, 1948, *FRUS*, 1948, vol IV, Eastern Europe; the Soviet Union, Document 345.

U.S. Ambassador to the Soviet Union from 1943 until 1946 followed by a six-month stint as the U.S. Ambassador to the United Kingdom and then a year and a half appointment as the Secretary of Commerce. In all of these roles, Harriman helped craft the post-World War II international order and was well versed in the details of the up-and-coming international organizations. Returning to the United States, Harriman played a leading role in crafting the intellectual and logistical underpinnings of what would become the Marshall Plan. Hoffman joined the project, becoming a close ally of Harriman. In 1948, Truman appointed Hoffman as the Administrator of the Economic Cooperation Administration (ECA), the newly-created agency tasked with administering the Marshall Plan.[16] While Hoffman managed the political dynamics at home, Truman sent Harriman to Europe as the Special Representative of the ECA given his experience managing European politics during the war.[17] Neither Harriman nor Hoffman had planned to get involved in the early development of a multilateral export control regime, but given the increasingly close ties between recovery aid and control compliance, both men inadvertently took on leading roles in the early export control debates.

In their initial conversations with their European counterparts, Harriman and other U.S. officials stationed in Europe demonstrated to their counterparts that they knew control compliance was no easy ask and understood these controls would lead to some economic pain and put them in a difficult position politically. For example, U.S. officials understood that implementing 1A controls could lead to a notable loss of exports and damage Western Europe's ability to import critical materials from the East if the Soviet Union retaliated with similar controls. Marshall also warned that if not approached carefully, controls could threaten existing commercial commitments

[16] Paul G. Hoffman, interview by Philip C. Brooks, Harry S. Truman Library and Museum, October 25, 1964, https://www.trumanlibrary.gov/library/oral-histories/hoffmanp.
[17] Rudy Abramson, *Spanning the Century: The Life of W. Averell Harriman, 1891-1986* (New York: William Morrow and Company, 1992), 406-438.

with Eastern Europe, which could "seriously jeopardize their political or economic relations with eastern European countries."[18] A careful and well-calibrated approach to trade control cooperation was therefore necessary if officials hoped for meaningful progress.

Harriman and his team responded by tailoring their negotiating approach and messaging to European countries. There was an initial effort by the State Department to shorten the list of prohibited items to ensure minimal interference with East-West trade and protect European recovery efforts.[19] Later, as U.S. officials prepared for formal negotiations, Secretary of State Dean Acheson directed them to avoid undue restrictions on East-West trade, focus on 1A over 1B cooperation, and emphasize voluntary participation. Acheson also urged his diplomatic team to pursue bilateral over multilateral negotiations to ensure no ally was steamrolled in the negotiating process.[20] Notably, however, in these bilateral negotiations, State Department officials only shared partial versions of the export control lists in an effort to maintain control over this sensitive information and carefully tailor the message for each country.[21]

Under the leadership of Lewis Williams Douglas, the U.S. ambassador to the United Kingdom, the U.S. negotiating team targeted the British Foreign Office to be one of its earliest allies in this export control effort because of their special relationship. British officials agreed early on to prohibit arms and other goods of military significance to the Soviet bloc but emphasized that the United Kingdom would be able to "exercise its own discretion" for other goods, especially

[18] "The Secretary of State to the Embassy in France," August 27, 1948, *FRUS*, 1948, vol IV, Eastern Europe; the Soviet Union, Document 359.
[19] "Current Economic Developments," June 14, 1948, *FRUS*, 1948, vol IV, Eastern Europe; the Soviet Union, Document 348.
[20] "The Secretary of State to the Embassy in France," August 27, 1948, *FRUS*, 1948, vol IV, Eastern Europe; the Soviet Union, Document 359.
[21] "Current Economic Developments," November 22, 1948, *FRUS*, 1948, vol IV, Eastern Europe; the Soviet Union, document 371. This document comes from later in the negotiations but references the initial decision not to apply uniform treatment to each of the participating countries (i.e., not provide them with the same information).

those not delivered by the United States under recovery program efforts.[22] Nevertheless, in 1948, UK officials assured Douglas that "it subscribe[d] in principle to the program" and was willing "to be of assistance in sponsoring the program with other participating countries."[23] The United Kingdom's willingness to play a lead role in coordinating cooperation with other European countries proved an instrumental factor in advancing the U.S. export control agenda in Europe, as demonstrated by their efforts to secure continental support for negotiations on 1A controls.[24]

Although Britain played a key role in coordinating European support, it was far from a Washington puppet. Britain emerged as the ringleader in developing an alternative '1A list.' Its list was similar to the original 1A list, but only covered 101 of its 161 items.[25] British officials worked hard to convince other European countries to coalesce around its modified version, and

[22] "The Ambassador in the United Kingdom (Douglas) to the Secretary of State," August 16, 1948, *FRUS*, 1948, vol IV, Eastern Europe; the Soviet Union, Document 356. Douglas played a key role in implementing the Marshall Plan in the United Kingdom and thus an instrumental role in the initial export control negotiations.

[23] "Current Economic Developments," November 22, 1948, *FRUS*, 1948, vol IV, Eastern Europe; the Soviet Union, Document 371. Note, however, that the United Kingdom did not subscribe blindly to the United States' 1A list and submitted a number of deletions and modifications to the included commodities. See also: "The Deputy Chief of the Economic Cooperation Administration Mission in the United Kingdom (Siegbert) to the Embassy in France," January 24, 1949, *FRUS*, 1949, vol V, Eastern Europe; the Soviet Union, Document 25.

[24] For more information about the American-Anglo nexus in these negotiations, see: Ian R. W. Jackson, "Waging the Economic Cold War: Britain and CoCom, 1948-54." In *Cold War Britain, 1945-1964*, edited by Michael F. Hopkins, Michael D. Kandiah, and Gillian Staerck, (London: Palgrave Macmillan, 2003).; "Current Economic Developments," November 22, 1948, *FRUS*, 1948, vol IV, Eastern Europe; the Soviet Union, Document 371.; While these countries all believed controls on critical materials were necessary, they differed on their definition of critical materials. For more on the British position, see: "The Deputy Chief of the Economic Cooperation Administration Mission in the United Kingdom (Siegbert) to the Embassy in France," January 24, 1949, FRUS, 1949, vol V, Eastern Europe; the Soviet Union, Document 25.; "The Deputy Chief of the Economic Cooperation Administration Mission in the United Kingdom (Siegbert) to the Embassy in France," January 31, 1949, *FRUS*, 1949, vol V, Eastern Europe; the Soviet Union, Document 27.; For more on the French position, see: "The Ambassador in France (Caffery) to the Acting Secretary of State," January 19, 1949, *FRUS*, 1949, vol V, Eastern Europe; the Soviet Union, Document 24. For more on the Swedish position, see: "The Ambassador in Sweden (Matthews) to the Secretary of State," January 7, 1949, *FRUS*, 1949, vol V, Eastern Europe; the Soviet Union, Document 21.; For more on the Swiss position, see: "The Minister in Switzerland (Vincent) to the Acting Secretary of State," January 19, 1949, *FRUS*, 1949, vol V, Eastern Europe; the Soviet Union, Document 23.; For more on the Finnish position, see: "The Executive Secretary of the Advisory Committee on Requirements (Garrett) to the Director of the Office of International Trade of the Department of Commerce (Blaisdell)," March 3, 1949, *FRUS*, 1949, vol V, Eastern Europe; the Soviet Union, Document 35.; For more on the Danish position, see: "Statement by the Commissioner for the European Recovery Program, Netherlands Foreign Ministry (Hirschfeld)," April 29, 1949, *FRUS*, 1949, vol V, Eastern Europe; the Soviet Union; Document 47.

[25] "The Deputy Chief of the Economic Cooperation Administration Mission in the United Kingdom (Siegbert) to the Embassy in France," January 24, 1949, *FRUS*, 1949, vol V, Eastern Europe; the Soviet Union, Document 25.

France proved to be the readiest partner. As a result, the Anglo-French list emerged as the strongest alternative to the American 1A list. By October 1949, however, it was still 48 items short of the U.S. 1A list, but served as an easy reference point for upcoming negotiations.[26]

During the discussions on the Anglo-French list, the United States made a critical adjustment and shifted from bilateral to multilateral negotiations. This pivot was in response to an adjustment in the European approach. Increased European discussion and cooperation on the Anglo-French list had led European governments to share their partial information on the American lists with each other.[27] In the face of pooled information and the increasingly unified European approach, it no longer made practical sense for the United States to pursue bilateral negotiations; the United States would be more likely to advance its agenda and counter the Anglo-French list through a multilateral negotiating process.[28]

As the United States turned to multilateral negotiations, calls began to emerge for a more formal body, a long-term approach to address export control policy, and a more organized negotiating process.[29] These calls resulted in the United States and its European allies finally

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[26] "The Special Representative in Europe for the Economic Cooperation Administration (Harriman) to the Administrator of the Economic Cooperation Administration (Hoffman)," October 15, 1949, *FRUS*, 1949, vol V, Eastern Europe; the Soviet Union, Document 74.
[27] "Current Economic Developments," November 22, 1948, *FRUS*, 1948, vol IV, Eastern Europe; the Soviet Union, Document 371.
[28] "Policy Paper Approved by the Foreign Assistance Correlation Committee," July 1, 1949, *FRUS*, 1949, vol V, Eastern Europe; the Soviet Union, Document 62. Note specifically the following quote from the document: "It was the consensus that multilateral concerting of action, with the US participating, is necessary if the most effective results are to be obtained."
[29] See the following documents for evidence of U.S. officials longer-term planning: "The Ambassador in the Soviet Union (Kirk) to the Secretary of State," October 1, 1949, *FRUS*, 1949, vol V, Eastern Europe; the Soviet Union, Document 72.; "The Assistant Secretary of State for European Affairs (Perkins) to the Secretary of State," October 25, 1949, *FRUS*, 1949, vol V, Eastern Europe; the Soviet Union, Document 80. One of the earliest calls to establish a formal cooperative mechanism came in May 1949 from the Department of State. Secretary of State Acheson argued that a formal organization was necessary to effectively address differences over the 1A list and the resulting challenges of enforcement. For evidence, see: "The Secretary of State to the Embassy in France," May 18, 1949, *FRUS*, 1949, vol V, Eastern Europe; the Soviet Union, Document 51. Acheson's approach attracted attention on the continent. In October, Belgium's foreign minister concurred that it was time to create a "full-time committee" that would give participants a forum to voice complaints and arrive at an agreement. For evidence, see: "The Chargé in Belgium (Millard) to the Secretary of State," October 13, 1949, *FRUS*, 1949, vol V, Eastern Europe; the Soviet Union, Document 73. Note that De Gruben emphasized the committee's informal nature and said Organization for

meeting in Paris on November 14, 1949. Harriman and other U.S. officials approached the meetings ready to obtain broader European agreement on the Anglo-French list and establish a permanent body.[30] Meanwhile, European officials were focused on gaining assurances that their European counterparts would enforce similar export embargoes to ensure the trade controls did not hurt their domestic business interests.[31] If everyone cooperated, controls seemed poised to benefit long-term European security and strengthen the transatlantic relationship; if, however, any European country opted to leak prohibited commodities and technology to the Soviet bloc, it would undermine the entire control framework.

From November 14 through November 23, officials met in secret to discuss the creation of this "full-time committee." From an American perspective, these meetings proved successful in advancing the U.S. export control agenda. Acheson wrote that he was "gratified in gen[eral] at [the] results" and "believe[d] substantial progress [had been] made on all subjects." These meetings led to a number of outcomes. First, the U.S. secured active participation in the group from the United Kingdom, France, Italy, Belgium, and the Netherlands with Denmark and Norway indicating an "attitude of sympathetic interest."[32] Second, the group moved toward greater consensus on the commodity control lists.[33] Third, although much of the practical details would

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European Economic Cooperation (OEEC) cooperation was important but U.S. participation imperative to the committee's success.

[30] "The Special Representative in Europe for the Economic Cooperation Administration (Harriman) to the Administrator of the Economic Cooperation Administration (Hoffman)," October 28, 1949, *FRUS*, 1949, vol V, Eastern Europe; the Soviet Union, Document 82.; "The Acting Administrator of the Economic Cooperation Administration (Foster) to the Embassy in France," November 4, 1949, *FRUS*, 1949, vol V, Eastern Europe; the Soviet Union, Document 86.; "The Special Representative in Europe for the Economic Cooperation Administration (Harriman) to the Administrator of the Economic Cooperation Administration (Hoffman)," November 5, 1949, *FRUS*, 1949, vol V, Eastern Europe; the Soviet Union, Document 87.

[31] "The Secretary of State to Certain Diplomatic Offices," April 26, 1950, *FRUS*, 1950, vol IV, Central and Eastern Europe; the Soviet Union, Document 44.

[32] "The Secretary of State to the Embassy in France," December 7, 1949, *FRUS*, 1949, vol V, Eastern Europe; the Soviet Union, Document 93.

[33] "The Deputy Special Representative in Europe for the Economic Cooperation Administration (Katz) to the Administrator of the Economic Cooperation Administration (Hoffman)," November 25, 1949, *FRUS*, 1949, vol V, Eastern Europe; the Soviet Union, Document 90. Some of the initial discussion of the I, II, and III lists emerged at

be hammered out at the next meeting in London on January 9, the governments agreed to form a permanent group with representatives from each of the governments.[34] Compared to the state of U.S. export controls at the start of 1949, this proved a significant advancement.

By the end of the January 1950 meetings, officials reached further agreement on COCOM's establishment. Most urgently, they reached consensus on 1A controls. Items found on both lists were placed under a new List I. Items of "significant strategic importance" but not all countries were ready to put under complete embargo were placed on List II for quantitative control. Items that did not result in complete agreement were placed on List III for further study (see Appendix A).[35] This marked notable progress and produced results acceptable to U.S. officials.

Representatives at these meetings also agreed to a number of procedural details about COCOM's operations, including, most importantly, to keep COCOM operations separate from the North Atlantic Treaty (NAT), the precursor to NATO. Shortly before the November 14 meeting, the U.S. delegation suggested addressing export control issues under the NAT framework. U.S. officials believed this framework would streamline the negotiating process and provide easy mechanisms to achieve unified action. The European reaction, however, was "rather cool."[36] British officials argued that working within the NAT framework would complicate negotiations with the Swedes and Swiss—vital partners in a successful export control framework who were not

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the November meetings.; See also: "The Secretary of State to the Embassy in France," December 7, 1949, *FRUS*, 1949, vol V, Eastern Europe; the Soviet Union, Document 93.

[34] "The Deputy Special Representative in Europe for the Economic Cooperation Administration (Katz) to the Administrator of the Economic Cooperation Administration (Hoffman)," November 25, 1949, *FRUS*, 1949, vol V, Eastern Europe; the Soviet Union, Document 90.; "The Secretary of State to the Embassy in France," December 7, 1949, *FRUS*, 1949, vol V, Eastern Europe; the Soviet Union, Document 93.; "The Secretary of State to the Embassy in France," December 13, 1949, *FRUS*, vol V, Eastern Europe; the Soviet Union, Document 94. This document in particular highlights Acheson's vision for structure moving forward and provides some key details on the administration side of the consultative group.

[35] For more details about the differences in the number of the commodities on each of the lists, see: "The Secretary of State to Certain Diplomatic Offices," April 26, 1950, *FRUS*, 1950, vol IV, Central and Eastern Europe; the Soviet Union, Document 44.

[36] "The Secretary of State to the Embassy in France," November 2, 1949, *FRUS*, 1949, vol V, Eastern Europe; the Soviet Union, Document 84. Note that Italy was the only European country willing to support the NAT proposal.

part of NAT and wanted no formal connection to the security arrangement. Furthermore, European officials feared that moving export control issues under NAT would give the appearance to the rest of Europe and the Soviet Union that it was engaging in targeted economic warfare.[37] Due to this sharp European reaction, Harriman and the U.S. officials withdrew their proposal and opted to pursue a separate permanent group.[38] Throughout the remainder of the Cold War, COCOM continued to operate in close proximity to NATO, and the secret COCOM deliberations were often held alongside NATO meetings.[39]

The negotiating parties also decided to keep the deliberations and COCOM's ongoing operations secret and informal, largely at the request of European officials. Acheson noted shortly after the January meeting that "for political and economic reasons nearly all European countries have taken [a] strong position that secrecy be maintained over multilateral aspects [of] export controls arrangements." This informal and secretive approach would complicate coordination with the various Parliaments and Congress because the details of the agreements "could not be made public…except with consent of all." If Western European countries were forced to admit the existence of COCOM, Acheson predicted that a "strong likelihood exists that they would withdraw from discussion and program." The negotiators therefore opted for a method of "informal consultation" with "no formal arrangement."[40] This 'gentlemen's agreement' meant the

[37] "The Secretary of State to the Embassy in France," November 2, 1949, *FRUS*, 1949, vol V, Eastern Europe; the Soviet Union, Document 84.
[38] "The Special Representative in Europe for the Economic Cooperation Administration (Harriman) to the Administrator of the Economic Cooperation Administration (Hoffman)," November 5, 1949, FRUS, 1949, vol V, Eastern Europe; the Soviet Union, Document 87.; For additional commentary, see also: Yasuhara, "The Myth of Free Trade," 137.
[39] "Agreed Report on the London Tripartite Conversations on Security Export Control, October 17–November 20, 1950," November 20, 1950, *FRUS*, 1950, vol IV, Central and Eastern Europe; the Soviet Union, Document 111. See this document for further evidence of the close interaction between COCOM, NATO, and the formation of export control policy. Note in particular the statement that the three governments agreed that they "could not in isolation prepare any comprehensive list of anticipated defence [*sic*] needs, and that this could only be done by the N.A.T.O. Powers."
[40] "The Secretary of State to Certain Diplomatic Offices," February 15, 1950, *FRUS*, 1950, vol IV, Central and Eastern Europe; the Soviet Union, Document 37. The "secrecy question" was a frequent topic of conversation at

participating countries only had non-binding political or moral commitments rather than any formal legal commitment.[41] While such an outcome was necessary to reach any sort of commitment on a control framework, it would create a number of challenges for enforcement and implementation in the coming years.

1950 and the Korean War as a Turning Point

With the conclusion of the January 1950 meetings, COCOM appeared to have the necessary foundation to begin tackling some of the thornier issues—such as trade with special-case countries like Yugoslavia, Finland, and Germany and finding common ground on 1B quantitative controls. This foundation, however, was not without its cracks; there were still sharp domestic divisions within each of the negotiating countries and substantial policy differences between Western Europe and the United States. It would take an event as momentous as the Korean War to begin clearing some of these road blocks.

Despite the appearance of a unified American view in the 1949-1950 Paris and London meetings, there were notable domestic divisions within the executive agencies. For example, the Department of State consistently pushed for finding a balance between blocking the military development of the Soviet bloc and strengthening the economic and political health of Western

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COCOM meetings and led the delegations to craft a number of guidelines for approaching the issue. For an example of the various countries' views on the question and how they went about implementing it, see: "COCOM Report on Secrecy Question," n.d., COCOM Doc No. 267, Records of the International Trade Administration, Bureau of Foreign Commerce Office of Export Control Policy Planning Division, Issuances of the Coordinating Committee (COCOM) Subcommittee on Export Control 1950-1956, Box 1, NACP. Leaks to the press were also a big concern for many European delegations, as highlighted by one outraged French official in a January 1950 letter to the COCOM chairman. See: Torfinn Oftedal to Mr. Chairman, January 4, 1950, COCOM Doc No 229B, Records of the International Trade Administration, Bureau of Foreign Commerce Office of Export Control Policy Planning Division, Issuances of the Coordinating Committee (COCOM) Subcommittee on Export Control 1950-1956, Box 1, NACP.

[41] Wende A. Wrubel, "The Toshiba-Kongsberg Incident: Shortcomings of Cocom, and Recommendations for Increased Effectiveness of Export Controls to the East Bloc," *American University International Law Review* 4, no. 1 (2011): 245 https://digitalcommons.wcl.american.edu/cgi/viewcontent.cgi?article=1673&context=auilr. See footnote 20 for more details on a gentlemen's agreement.

Europe. It argued that the United States should prioritize giving Western Europe "the greatest advantage" and provide them sufficient autonomy to adapt controls to their needs. The Department of Defense adopted a drastically different view and argued that "military security should be the deciding factor" and "overrid[e] recovery considerations." The National Security Resource Board and Department of Commerce agreed with the military's conclusions. Commerce, however, arrived at this conclusion for different reasons. It argued that East-West trade expansion was "no longer essential to economic recovery" and thus military security could be prioritized.[42] Given the notable differences and policy implications of these views, it was a miracle that the United States presented a united front at the initial COCOM negotiations.

While officials in Europe were debating various commodities on the 1B lists in hopes of preventing a future hot war with the Soviet Union, kinetic conflict was erupting in East Asia. On June 25, 1950, the North Korean army crossed the thirty-eighth parallel setting off the first major conflict since the close of World War II. The Truman administration quickly characterized the invasion as a blatant act of communist aggression and re-directed copious resources to the Korean peninsula. Throughout the three years of active conflict, warfighting destroyed the livelihoods of communities across the Korean peninsula, profoundly shifted the trajectory of its development, and left lasting scars that remain to this day. But from a U.S. and European strategic perspective, the Korean War served as a catalyst for the globalization of the Cold War military conflict and elevated their concerns about the growing Soviet threat.[43]

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[42] "Report by the Executive Secretary of the National Security Council (Lay) to the National Security Council," August 21, 1950, *FRUS*, 1950, vol IV, Central and Eastern Europe; the Soviet Union, Document 78. The document discusses the different departmental views on other export control issues, including how many commodities should be controlled, how to approach licensing policies for Austria and Sweden, and how far the United State should go to force Western Europe to comply with U.S. controls.; For additional commentary, see: Berman and Garson, "United States Export Controls--Past, Present, and Future."
[43] Westad, *The Cold War*, 159-182.

The outbreak of the Korean War almost single handedly united the U.S. executive branch around a more coherent export control approach, at least for the time being. The previously precarious balance between the Departments of Defense and State was quickly resolved in the military's favor.[44] Some State Department officials still tried to bring nuance into the discussions and warned that stricter export control policies would hurt relations with Europe. But few wanted to listen. Gone were the concerns about balancing East-West trade and European recovery with U.S. national security needs.[45] Export controls were now solely pursued to advance the security interests of the United States and slow the Soviet bloc's military development. In the view of the hawks, it was time to strengthen and expand these controls.

The U.S. negotiating position at COCOM meetings became increasingly shaped by the military's hawkish views. U.S. officials injected a newfound sense of urgency to the conversations, made ample use of crisis diplomacy to advance their agenda, and argued that the communist invasion highlighted the consequences of unfettered communist growth.[46] To stop the communist world from gaining a preponderance of military and economic power, they believed, in the words of NSC Executive Secretary James S. Lay, that it was time to "step up our [U.S.] efforts to impair the strength of the Soviet world through the intensification or extension of controls over its trade."[47] In practice, this meant the U.S. delegation pushed heavily to extend existing controls to

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[44] Tasuhara, "The Myth of Free Trade," 139-140.; Berman and Garson, "United States Export Controls--Past, Present, and Future," 799.
[45] "Memorandum by the Secretary of Commerce (Sawyer) to the National Security Council," January 17, 1951, *FRUS*, 1951, vol I, National Security Affairs; Foreign Economic Policy, Document 347. Charles Sawyer, the Secretary of Commerce, dismissed the State Department's concerns noting, "it is by no means certain that the proposed changes would, as claimed, have adverse effects on our relation with Western European Allies."
[46] Yasuhara, "Myth of Free Trade," 7-8.
[47] "Memorandum by the Executive Secretary of the National Security Council (Lay) to the National Security Council," February 12, 1951, *FRUS*, 1951, vol I, National Security Affairs; Foreign Economic Policy, Document 357.

cover new items, although U.S. officials differed over to what extent coercion should be used to advance those goals.[48]

But Western Europe was not as ready to drastically change their negotiating position to match the drama and fear of the Korean War. Two months after the initial North Korean invasion, the U.S. COCOM delegation warned that there was a high probability that other participating countries, including the United Kingdom, would not coalesce around U.S. 1B proposals.[49] The U.S. delegation viewed this as particularly alarming given Britain's ability to influence other European delegations. American officials feared that if the British position remained unchanged, many of the 1B items would be subject to no international control at all—a frightful prospect given their fears about the advancing communist threat.[50]

As time passed, however, the pressures from the Korean War began to "narrow…the divergence of views between participating countries as to the security importance of limiting the Soviet war potential through export controls."[51] Notable progress came in September 1950 when the United States, France, and the United Kingdom agreed to build a list of items that would "contribute substantially to war potential"—in other words, the U.S. 1B list.[52] By November, these tripartite talks resulted in quantitative controls for 1B items.[53] As the U.S. delegation in London

[48] "Report by the Executive Secretary of the National Security Council (Lay) to the National Security Council," August 21, 1950, *FRUS*, 1950, vol IV, Central and Eastern Europe; the Soviet Union, Document 78.
[49] "The Secretary of State to the Embassy in France," August 5, 1950, *FRUS*, 1950, vol IV, Central and Eastern Europe; the Soviet Union, Document 77.
[50] "The Secretary of State to the Embassy in France," August 5, 1950, *FRUS*, 1950, vol IV, Central and Eastern Europe; the Soviet Union, Document 77.; "The Secretary of State to the Embassy in the United Kingdom," August 22, 1950, *FRUS*, 1950, vol IV, Central and Eastern Europe; the Soviet Union, Document 80.
[51] "Report by the Executive Secretary of the National Security Council (Lay) to the National Security Council," August 21, 1950, *FRUS*, 1950, vol IV, Central and Eastern Europe; the Soviet Union, Document 78.
[52] "Agreed Minute of the United States, British, and French Foreign Ministers," September 19, 1950, *FRUS*, 1950, vol IV, Central and Eastern Europe; the Soviet Union, Document 88.; "The Acting Secretary of State to the Embassy in France," September 22, 1950, 1950, vol IV, Central and Eastern Europe; the Soviet Union, Document 90. This document details the acting Secretary of State's confidence that substantial progress could be achieved on these controls in the coming weeks.
[53] "Agreed Report on the London Tripartite Conversations on Security Export Control, October 17–November 20, 1950," November 20, 1950, *FRUS*, 1950, vol IV, Central and Eastern Europe; the Soviet Union, Document 111.

telegrammed Acheson, it considered the results of the conference to be "much more satisfactory than could have been anticipated."[54]

Over the next few months, the tripartite countries worked with their European allies to solicit their support and backing of these new controls. Few European countries backed the new control lists immediately, and acceptance of the new lists often came with reservations. The Dutch delegation, for example, wrote that its government was "in general prepared to accept the proposed form of control" but declared that it "must…make some reserves regarding the proposed form of control…on account of outstanding commitments under trade agreements with one or more Eastern European countries."[55] Similarly, the Danish delegation wrote that they were "prepared to accept the proposals subject to…[some] reservations." The Danes wanted the participating countries to include a clause that would keep open the possibility of exempting a country from these rules when "rigid observance of the rules would endanger trade agreements of vital importance to the economy of the country in question."[56]

But despite some countries' reservations and hesitancy to back the new lists, the ultimate agreement on the 1B lists was a significant outcome; just a year prior, international cooperation on 1B items was a distant possibility. Now, Western Europe was actively engaging in efforts to finalize details for quantitative control implementation. As Yoko Yasuhara writes in her dissertation, "It was during the [Korean] war that the United States could obtain the greatest degree

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[54] "The Chargé in the United Kingdom (Holmes) to the Secretary of State," November 21, 1950, *FRUS*, 1950, vol IV, Central and Eastern Europe; the Soviet Union, Document 112.
[55] The Netherlands Delegation, "Memorandum," January 8, 1951, Doc No 234/51, Records of the International Trade Administration, Bureau of Foreign Commerce Office of Export Control Policy Planning Division, Issuances of the Coordinating Committee (COCOM) Subcommittee on Export Control 1950-1956, Box 1, NACP.
[56] The Danish Delegation, "Memorandum," January 6, 1951, Doc No 230, Records of the International Trade Administration, Bureau of Foreign Commerce Office of Export Control Policy Planning Division, Issuances of the Coordinating Committee (COCOM) Subcommittee on Export Control 1950-1956, Box 1, NACP.

of cooperation from her aid recipients. Without the war situation, the export control network would not have become as tight as it was in the early 1950s."[57]

The 1951 Battle Act

Not only did the Korean War narrow the views on export controls within U.S. executive agencies and among the United States' European allies, but it created an opportunity for substantial Congressional action on export control policy and an escalation in the U.S. approach.

The Korean War created a political opening for congresspeople to garner political points by pushing for a harder line against the Soviet Union. Senator Kenneth Wherry, a Republican from Nebraska, was one of the first to try using economic policy. Wherry had been a strong opponent to the Marshall Plan and was angered by the impression of European non-cooperation on trade policy with the Soviet bloc. Frustrated by existing rules that gave the president discretionary power to override certain restrictions for European partners, Wherry proposed an amendment to block such actions. Sharp opposition from the Truman administration, however, led to the emergence of a compromise amendment that cut the teeth from Wherry's proposal.[58] While this compromise temporarily diffused some of the tensions, it did not end Wherry and his supporter's efforts to require stricter European compliance with U.S. trade controls.

As the Korean War continued, the issue re-emerged; more and more congresspeople wanted to force European compliance with the U.S. export control program and pass permanent legislation to implement a more aggressive trade policy. Few congresspeople, however, actually understand the intricacies of the economic and trade developments in Europe and fewer understood

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[57] Yasuhara, "Myth of Free Trade," 8.
[58] Gunnar Adler-Karlsson, *Western Economic Warfare, 1947-1967: A Case Study in Foreign Economic Policy*. (Stockholm: Almqvist & Wiksell, 1968), 26-27. This compromise amendment was called the Cannon amendment and required the president to work with the NSC for any exceptions to export control policies.

how COCOM fit into the picture. The general information they had received led many to conclude that the executive branch was poorly prepared to handle the issues. Still riding the waves of the McCarthy hysteria and bias for legislative action, they saw an opportunity to combat this perceived deficiency in U.S. policy and garner political points in the process.[59]

They channeled their efforts into the 1951 Mutual Defense Assistance Control Act—colloquially known as the Battle Act after its champion, Representative Laurie Battle of Alabama. Critically, however, Battle was no stranger to the issue and spent countless hours perfecting his piece of legislation. His commitment to his proposal—HR 4550—led him to quip one day on the House floor that some had suggested he even name his recently born daughter "HR 4550."[60] Battle introduced HR 4550 in the House on June 21, 1951—almost a year to the date since the North Korean invasion of South Korea—and outlined five ways in which Congress would update and change the U.S. export control regime. First, it codified U.S. export controls for all arms, ammunition, atomic-energy materials, and other items of primary strategic significance. Second, it declared that the United States would provide no aid unless the recipient followed similar embargos. Third, it put the administration of U.S. export controls under a single administrator. Fourth, it provided its own method of dividing commodities into three lists. Fifth, it invited non-Marshall plan recipients to collaborate with the United States to build an effective control framework.[61]

The congressional debate over Battle's bill was fierce. Battle, Representative Harold Elliott of Arizona, and other supporters of the bill made frequent references to the Korean War and drew

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[59] Adler-Karlsson, *Western Economic Warfare, 1947-1967*, 26.
[60] 82 Cong. Rec. H9436 (daily ed. August 2, 1951).
[61] 82 Cong. Rec. H9434-9446 (daily ed. August 2, 1951).

frequent parallels to U.S. trade with Japan at the dawn of World War II. One such supporter, in a sentiment frequently echoed during House and Senate debates, declared,

> "Our boys were dying on the battlefields of Korea. The very materials we permitted to reach Russia or its satellite countries could and undoubtedly were utilized in their destruction. The situation in this respect was no different than our experience in World War II. We had shipped scrap iron to Japan that was afterward used against us. We sent it as scrap. It was returned to us in the form of bullets that took the lives of our soldiers.[62]

With the 10-year anniversary of the Japanese attack on Pearl Harbor approaching later that year, invocations of this core memory quickly rallied the American public behind the new legislation.

Others also cited the attack on Pearl Harbor to argue that the bill did not go far enough in forcing compliance. For example, Representative Edith Rogers—the first woman elected to Congress from the Commonwealth of Massachusetts—reminded the members of Congress that she had protested "very bitterly" in the early days of World War II against shipping commodities of war to Japan only to have the Japanese "sta[b] us in the back at Pearl Harbor." She thus "heartily commend[ed]" Battle and his supporters for bringing the issue to Congress's attention, but found that "it d[id] not go far enough."[63] Rogers and other advocates of an even harsher response often advocated for stricter licensing policies to minimize the number of exceptions made to the existing restricted items lists.

Meanwhile, supporters of the Truman administration privy to the secret COCOM negotiations took issue with the bill, but their ability to articulate their frustrations was limited by their inability to share with Congress and the American public what had been transpiring behind closed doors.[64] Not only could they not share the immense amount of progress on list cooperation

[62] 82 Cong. Rec. H9434-9446 (daily ed. August 2, 1951).; See similar sentiments in the Senate debates as well: 82 Cong. Rec. S10661-10678, 10700-10715, 10718-10746 (daily ed. August 27, 1951).
[63] 82 Cong. Rec. H9440-9441 (daily ed. August 2, 1951).
[64] "United States Minutes of the Second Meeting of the United States–United Kingdom Foreign Ministers in Washington on September 11, 1951, 10:30 a. m.," September 11, 1951, *FRUS*, 1951, vol I, National Security Affairs; Foreign Economic Policy, Document 437.

and COCOM's creation, but they could not share the delicate nature of the negotiations. Since the inception of bilateral conversations, the U.S. delegation had made a pointed effort *not* to employ coercive measures to force compliance; there had been a heavy emphasis on voluntary cooperation. Meanwhile, the Battle Act took a sharply different approach and adopted coercive tactics to force greater compliance.[65] With a single piece of legislation, a wrench was about to be thrown into months of careful diplomatic maneuvers, and there was not much the U.S. delegation could do to stop the tidal wave of support it received.

Despite the reservations from the Truman administration, the House passed the legislation *viva voce*, the Senate passed it by a vote of 55 to 16, and Truman finally signed the bill on October 26, 1951.[66] As Gunnar Adler-Karlsson notes, the Battle Act "is the most important legislative document connecting the American foreign aid programme [*sic*] with specific demands upon the aid-receiving governments to conform to American regulations in their external commerce with communist nations."[67] It successfully institutionalized U.S. participation in COCOM and guaranteed Congress a heightened role to play in export control debates in the years to come.

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[65] "Differentials Between U.S. and Multilateral Controls," Council on Foreign Economic Policy, June 23, 1955, CIA Reading Room, https://www.cia.gov/readingroom/document/cia-rdp63-00084a000100090001-6.; See also Berman and Garson, "United States Export Controls--Past, Present, and Future," 836.

[66] Richard M. Boeckel, "Record of the 82nd Congress (First Session)," in *Editorial Research Reports 1951*, vol. II (Washington, D.C.: CG Press, 1951): 665-733, https://library.cqpress.com/cqresearcher/document.php?id=cqresrre1951102200.

[67] Adler-Karlsson, *Western Economic Warfare, 1947-1967*, 28. Note also that Jeffrey Golan said "This measure, coupled with U.S.-sponsored multilateral restrictions, perhaps marked the zenith of allied embargo efforts." Jeffrey W. Golan, "U.S. Technology Transfers to the Soviet Union and the Protection of National Security," *Law and Policy in International Business* 11 (1979), 1044, https://heinonline.org/HOL/Page?handle=hein.journals/geojintl11&id=1055&collection=journals&index=.

CHAPTER 3:
Trade Policy, Détente, and the 1969 Export Administration Act

"Nineteen sixty-nine was a key year in the evolution of the United States' attitudes toward trade with the Soviet Union and the Communist countries of Eastern Europe."[1]

I. INTRODUCTION

Between the passing of the 1951 Battle Act and the late 1960s, many transformative events happened in the world of geopolitics. Joseph Stalin died in 1953, setting off years of reckoning and reassessment within the Soviet Union. The Taiwan Strait crises of 1954 and 1958 almost prompted the United States to drop atomic bombs on the People's Republic of China. The United States and the Soviet Union came the closest they ever have to nuclear war during the Cuban Missile Crisis of 1961. U.S. involvement in Vietnam escalated and sent shockwaves across the region and throughout U.S. domestic politics. And economies around the world experienced record growth while also facing sudden recessions. The international arena was changing, and many observers increasingly came to see the necessity of resetting global relations. Thus, while containment typified the U.S. strategic approach in the early 1950s, détente was increasingly coming into vogue by the late 1960s.

Détente is a term frequently used to characterize the relaxation in tensions between the Soviet Union and the United States in the 1960s. While most of the détente literature focuses on arms control and highlights examples such as the start of the Strategic Arms Limitation Talks

[1] Lawrence C. McQuade, "U.S. Trade with Eastern Europe: Its Prospects and Parameters," *Law and Policy in International Business* 3 (1971):42, https://heinonline.org/HOL/Page?handle=hein.journals/geojintl3&div=12&g_sent=1&casa_token=&collection=journals.

(SALT) in 1969, trade policy constitutes another key element of the relaxation of Cold War tensions.[2] This chapter analyzes how U.S. and allied government officials operationalized détente through export control policy. It highlights how 1969 served as a pivotal year and marked the United States' transition from a policy centered in economic warfare terms to a policy designed to foster greater trade while still protecting U.S. national security. Additionally, it shows how U.S. officials used the relaxation in export controls as a signaling mechanism to the Soviet bloc and how Western European governments worked both with and against the fluctuations in U.S. policy to advance their own interests.

II. THE CHANGING ECONOMIC AND POLITICAL CLIMATE AND CALLS FOR TRADE LIBERALIZATION

There were two developments in the 1960s that created the conditions for U.S. officials to liberalize export controls. First was the collapse of the communist monolith. The collapse in relations between the People's Republic of China and the Soviet Union did not happen instantaneously but rather was something that occurred over a number of years. For much of the early Cold War, Mao Zedong had stood alongside the Soviets as leaders of the communist world, albeit in a more junior capacity. But over time, Mao grew increasingly disillusioned with how Nikita Khrushchev ran the Soviet bloc. Mao was horrified by Khrushchev's 1956 "secret speech" denouncing Joseph Stalin because he saw it as treasonous to the global communist movement. He was also disgusted with Moscow's moves toward rapprochement with Yugoslavia and the West and Khrushchev's increasing hesitation to back revolutionary movements around the world. These ideological qualms coupled with Moscow's decision to stop helping China build atomic weapons

[2] For broad discussion of these themes and the lack of discussion on trade policy and détente, see: Leffler, Melvyn P. and Odd Arne Westad. eds. *The Cambridge History of the Cold War*. (Cambridge: Cambridge University Press, 2010).

and other geopolitical tensions led Soviet leadership to recall its Soviet experts in China. By the summer of 1960, the communist monolith had crumbled. Throughout the remainder of the 1960s, tensions would continue to grow between the Soviet bloc and Mao's China. And while it took many years for the United States to fully understand the implications of this division, the Sino-Soviet split nevertheless revealed to many Americans that the communist world was not the ten-foot monster they had made it out to be. This split subsequently created the political space for more active East-West engagement.[3]

Second was the dramatically changing economic climate. During the late 1950s, the United States experienced its third post-war recession where GDP growth slowed, U.S. exports dropped precipitously, and the balance of payments deficit expanded.[4] Western European and Japanese growth rates had surpassed the United States since the 1950s, and since the mid-1960s, the productivity gap noticeably widened. The U.S. economy did not look quite like the "arsenal of democracy" that Franklin Roosevelt had trumpeted, but rather "was looking increasingly like a rentier superpower."[5] As a result, John F. Kennedy promised during his presidential campaign to "get the economy moving again"—a policy he pursued in the early 1960s by beginning to remove trade barriers and promoting U.S. exports.[6] Kennedy's commitment manifested itself in the 1962

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[3] For more on the Sino-Soviet split, see: Ronald Grigor Suny, *The Soviet Experiment: Russia, the USSR, and the Successor States* (New York: Oxford University Press, 2011), 436-438.; Gordon H. Chang, *Fateful Ties: A History of America's Preoccupation with China* (Cambridge: Harvard University Press, 2015), 206-208.; Westad, Odd Arne. *The Cold War: A World History*. (New York: Basic Books, 2017), 254-255; For more on the splintering Soviet world, see: McQuade, "U.S. Trade with Eastern Europe," 45.
[4] "The 1957-58 Recession in World Trade," *Federal Reserve Bulletin* (October 1958): 1153-1160, https://fraser.stlouisfed.org/files/docs/publications/FRB/pages/1955-1959/14330_1955-1959.pdf.; Broad characterization of this economic crisis in the context of export control policy can be found in: Richard Cooper, "Economic Aspects of the Cold War, 1962–1975," in *The Cambridge History of the Cold War*, eds. Melvyn P. Leffler and Odd Arne Westad, (Cambridge: Cambridge University Press, 2010), 51.
[5] Daniel J. Sargent, *A Superpower Transformed: The Remaking of American Foreign Relations in the 1970s* (Oxford University Press, 2015), 100-101.
[6] Richard Cooper, "Economic Aspects of the Cold War, 1962–1975," in *The Cambridge History of the Cold War*, eds. Melvyn P. Leffler and Odd Arne Westad, (Cambridge: Cambridge University Press, 2010), 51.

Trade Expansion Act and a number of efforts to address restrictive U.S. tariffs.[7] The most prominent example of this commitment, however, came from the administration's support for the Kennedy round of General Agreement on Tariffs and Trade (GATT) negotiations. The Kennedy round led to sharp decreases in dutiable imports from many countries around the world, established anti-dumping measures, and addressed a number of other non-tariff barriers to trade, like technical standards and regulations. These negotiations lasted from May 1964 until June 1967 serving as some of the longest and most difficult GATT negotiations to date.[8] And while Kennedy himself did not live to see these negotiations happen in practice, his successor—Lydon B. Johnson—shepherded the negotiations to the finish line.

The Soviet Union was also experiencing a changing economic climate, albeit in different ways. In the early 1950s, the Soviet Union experienced promising economic growth. Khrushchev's agricultural reforms, for example, led to a 74 percent increase in agricultural output between 1953 and 1964, and many industrial workers experienced improved standards of living. The early 1950s also saw gross national product (GNP) grow at annual rates upwards of 7 percent, but this period represented the peak in Soviet economic growth. From 1958 through Khrushchev's death in 1964 and for much of the years under the leadership of Leonid Brezhnev, Soviet economic growth stagnated and both labor and capital productivity declined.[9] Further complicating the Soviet economic picture was its reluctance to join international efforts to reduce trade barriers. As one scholar writes, "foreign trade did not fit comfortably into [Soviet] national central planning."[10]

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[7] Douglas A. Irwin, *Clashing Over Commerce: A History of US Trade Policy* (Chicago: University of Chicago Press, 2017), 521-527.
[8] Irwin, *Clashing Over Commerce*, 528-533.
[9] Suny, *The Soviet Experiment*, 433-434.; Robert C. Allen, "The Rise and Decline of the Soviet Economy," *The Canadian Journal of Economics* 34, no. 4 (November 2001): 859-881, https://www.jstor.org/stable/3131928.
[10] Cooper, "Economic Aspects of the Cold War," 48.

This limited the ability of the Soviet bloc to experience the benefits of the liberalization in international trade.

Meanwhile on the continent, economic growth and stability returned to Western Europe. The continent experienced record GDP growth and some of the fastest rates of trade and production expansion in world history. The post-war growth was so impressive that observers quickly termed the period "Europe's golden age."[11] The greater stability in Western Europe's economic outlook left it far less vulnerable to Soviet influence, and recovery ensured widespread trade controls were no longer necessary to protect vulnerable industries.

While the United States benefited from European recovery in many ways, it also marked a sharp decline in the United States' economic leverage. These effects rippled across multiple areas of economic policy, but they became particularly clear in the realm of multilateral export controls. Recovery left Western Europe far less dependent on U.S. foreign aid. As a result, the core of the 1951 Battle Act—the threats to withhold aid if Europe refused to comply with U.S. trade controls—became largely ineffective.[12] Recovery also meant Western Europe now had the resources to acquire strategic goods and technologies that had previously been exclusive to the United States.[13] With these acquisitions, Western Europe's production capacity rapidly expanded,

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[11] Gianna Toniolo, "Europe's Golden Age, 1950-1973: Speculations from a Long-Run Perspective," *The Economic History Review* 2 no. 51 (May 1998): 252-267, https://www.jstor.org/stable/2599377.; Tamás Vonyó, "Post-War Reconstruction and the Golden Age of Economic Growth," *European Review of Economic History* 12, no. 2 (August 2008): 221-241, https://www.jstor.org/stable/41378546.

[12] Golan, Jeffrey W. "U.S. Technology Transfers to the Soviet Union and the Protection of National Security," *Law and Policy in International Business* 11 (1979), 1049, https://heinonline.org/HOL/Page?handle=hein.journals/geojintl11&id=1055&collection=journals&index=.

[13] Janet E. B. Ecker, "National Security Protection: The Critical Technologies Approach to U.S. Export Control of High-Level Technology," *Journal of International Law and Economics* 15, no. 1 (1981): 579. https://heinonline.org/HOL/Page?handle=hein.journals/gwilr15&div=26&g_sent=1&casa_token=&collection=journals.

facilitating much of its growth. This growth, however, needed an outlet, and geographic proximity made trade with Eastern Europe a natural outgrowth of these developments.[14]

Confronted by this new economic climate and threats to American competitiveness, liberalization of U.S. export controls became increasingly popular. For years, the U.S. business community had resisted trade with the Soviet bloc based on a moral aversion to trading with the communist world, but attitudes began to loosen in the 1960s. As early as 1964, the U.S. Chamber of Commerce pushed for a re-evaluation of U.S. trade with the East, and in the same year, a group of 92 American businesses executives visited Moscow, once again reflecting the changing political climate.[15] The Department of State became the main champion of this liberalized policy, and while the Department of Commerce continued to advocate for a comparatively stricter framework, they increasingly came to realize that some degree of liberalization was necessary.[16] In contrast, the Department of Defense and Central Intelligence Agency (CIA) disagreed with this new trade control approach, arguing that strict export controls were necessary to maintain the United States' deterrence posture.[17] Despite its sharp reservations and prominent position in Washington, the Department of Defense's position was largely relegated to the sidelines.[18]

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[14] Ed Zschau, "Export Controls and America's Competitive Challenge," *High Technology Law Journal* 1, no. 1(1986): 7 https://www.jstor.org/stable/24122393.

[15] McQuade, "U.S. Trade with Eastern Europe," 60.; "Airgram from the Mission to the North Atlantic Treaty Organization and European Regional Organizations to the Department of State," January 6, 1965, *FRUS*, 1964-1968, vol IX, International Development and Economic Defense Policy; Commodities, Document 163.

[16] A few examples of these agency positions can be found in: "Memorandum from C. Fred Bergsten and Helmut Sonnenfeldt of the National Security Council Staff to the President's Assistant for National Security Affairs (Kissinger)," February 12, 1971, *FRUS*, 1969-1972, vol IV, Foreign Assistance, International Development, Trade Policies, Document 370.; "Memorandum from the Acting Chairman of the National Security Council Under Secretaries Committee (Samuels) to President Nixon," March 18, 1971, *FRUS*, 1969-1972, vol IV, Foreign Assistance, International Development, Trade Policies, Document 372.; "Action Memorandum From the President's Assistant for National Security Affairs (Kissinger) to President Nixon," June 2, 1971, *FRUS*, 1969-1972, vol IV, Foreign Assistance, International Development, Trade Policies, Document 375.

[17] "Memorandum From Secretary of Defense Laird to President Nixon," June 22, 1971, *FRUS*, 1969-1972, vol IV, Foreign Assistance, International Development, Trade Policies, Document 376. Here, the Secretary of Defense discusses the DOD's position on liberalizing export controls.

[18] It is worth noting that this analysis works with a lot of the prevailing opinions of the time that argued liberalized trade could begin to heal some of the rifts with the Soviet Union. There were, however, a number of limiting factors that restricted the extent to which liberalized trade policies could achieve this in practice. For example, years of

Although there was a notable reduction in tensions between the United States and the Soviet bloc throughout the 1960s and an increasing number of calls for trade liberalization, Congress refused to liberalize export controls until 1969. As late as 1962, the United States was still ratcheting up the intensity on its trade control policies, as Congress amended the 1949 Export Control Act to require the president to deny export licenses for goods that contributed to both the military *and* economic development of U.S. adversaries.[19] The 1962 amendments marked a dramatic escalation in U.S. economic warfare and further highlight how revolutionary the 1969 pivot in trade controls truly was.

III. THE 1969 EXPORT ADMINISTRATION ACT AND THE FUNDAMENTAL SHIFT IN U.S. EXPORT CONTROL POLICY

The 1969 Export Administration Act (EAA) serves as one of the most prominent examples of how trade liberalization and détente were operationalized in practice, and it marks the dividing line between two sharply different approaches to export control policy. Despite the multitude of voices advocating for this pivot, the policy development process was far from simple. The congressional debates, the legislation itself, and the 1969-1971 case study of French semiconductor sales demonstrate the challenges of developing a new multilateral export control policy that seeks to find a middle ground between trade promotion and national security.

Congressional debate over the 1969 EAA was contentious. Senate proponents of trade liberalization like Senators Edmund Muskie, Walter Mondale, and Bob Packwood argued that it

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confrontational economic policies coupled with the Soviet Union’s tight controls on engaging in international trade had limited the development of meaningful contacts between the Soviet Union and the United States. This meant there were limited opportunities to operationalize this policy in practice. For more on this, see: Hanjimäki, Jussi. “Détente in Europe, 1962–1975,” in *The Cambridge History of the Cold War, Volume II*, ed. Melvyn P. Leffler and Odd Arne Westad (Cambridge: University of Cambridge Press, 2010), 200; Cooper, "Economic Aspects of the Cold War, 1962–1975," 53.

[19] Ecker, "National Security Protection,” 580.; McQuade, "U.S. Trade with Eastern Europe,” 74., Golan, "U.S. Technology Transfers to the Soviet Union and the Protection of National Security,” 1046.

was time to "actively seek ways and means to increase our contacts and dealings with Eastern Europe." They highlighted the practical failings of the existing controls and argued that they limited international business prospects.[20] Meanwhile, the House took a more conservative approach, arguing that export control legislation was not the appropriate place to promote trade. They argued that the president must retain "full authority" to control exports for national security and foreign policy reasons.[21] Despite the sharp differences, the issues were resolved, and Richard Nixon signed the bill into law in December 1969.[22]

With the enactment of the 1969 EAA, a number of substantive changes went into effect that were designed to make it easier for U.S. businesses to engage with the Soviet bloc. For example, it eliminated the 1962 requirement that trade controls be used to retard the economic potential of the Soviet bloc. It also streamlined the license application procedures, required greater transparency in the licensing process, and called for the establishment of an Export Expansion Commission to study ways to promote "peace trade."[23]

Taken all together, this legislation highlighted a fundamental pivot in the United States' approach. First, it marked the abandonment of the United States' policy of "offensive economic warfare" against the Soviet bloc.[24] Second, it marked congressional endorsement of trade

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[20] 91 Cong. Rec. S9860-9863 (daily ed. April 22, 1969).
[21] 91 Cong. Rec. H35507-35587 (daily ed. November 24, 1969).
[22] Export Administration Act of 1969, Pub.L.No.91-184, 91 Stat. 184 (1969). https://www.govinfo.gov/content/pkg/STATUTE-83/pdf/STATUTE-83-Pg841.pdf.
[23] Golan, "U.S. Technology Transfers to the Soviet Union and the Protection of National Security," 1048.; McQuade, "U.S. Trade with Eastern Europe," 83.; Zschau, Ed. "Export Controls and America's Competitive Challenge," 7-8.; Export Administration Act of 1969, Pub.L.No.91-184, 91 Stat. 184 (1969).
[24] Golan, "U.S. Technology Transfers to the Soviet Union and the Protection of National Security," 1038.; Zschau, "Export Controls and America's Competitive Challenge," 8. Many scholars refer to the United States' early export control policies as a form of economic warfare given their designed intention to weaken the overall economic capabilities of the adversary. For evidence, see: Michael Mastanduno, "Strategies of Economic Containment: U.S. Trade Relations with the Soviet Union." *World Politics* 37, no. 4 (July 1985): https://www.jstor.org/stable/2010342.; Gunnar Adler-Karlsson, *Western Economic Warfare, 1947-1967: A Case Study in Foreign Economic Policy*. (Stockholm: Almqvist & Wiksell, 1968).

expansion with the Soviet bloc.[25] For a Congress that had only seven years earlier written legislation calling for trade controls to constrain the military *and* economic development of the Soviet world, this was a fundamental adjustment. Third, it tipped the balance between national security and international trade heavily in favor of East-West trade promotion. Earlier legislation had favored national security over practically every other consideration. For example, the 1949 Export Control Act reflected the "hostile politico-military atmosphere" of the late 1940s while the 1969 EAA advocated for 'peace trade' and building pathways toward greater engagement with the Soviet bloc.[26] Nevertheless, despite this shift, the 1969 EAA still required officials to deny exports when they threatened U.S. national security, thus creating two competing policy goals. On one hand, it encouraged robust trade with all countries. But on the other hand, it continued to deny exports that could contribute to the military potential of U.S. adversaries. These tensions would play out in a number of contentious forms in the early 1970s.[27]

IV. DEBATING FREE TRADE AND NATIONAL SECURITY IN PRACTICE

The French sale of silicon transistors and integrated circuit technology to Poland serves as one of the most illustrative examples of these tensions. Export control lists had included these goods since their inception because they were integral components in computers and advanced communications equipment. U.S. intelligence estimates noted that the United States and Western Europe were "well ahead" of the Soviet bloc in both technology and manufacturing knowhow, and

[25] "The Battle Act Report 1969: Mutual Defense Assistance Control Act of 1951 - Twenty-Second Report to Congress." U.S. Department of State. 1969, 8. https://tinyurl.com/2nuap52t.
[26] McQuade, "U.S. Trade with Eastern Europe," 83.
[27] "The Battle Act Report 1969," 8.; Golan, "U.S. Technology Transfers to the Soviet Union and the Protection of National Security," 1038.

U.S. officials wanted to maintain this lead.[28] COCOM rules allowed for exceptions as long as all members agreed, but such exceptions were rare—especially for high-level goods.[29]

In 1969, however, French officials embraced the United States' trade promotion agenda and opened discussions on the first stage of this transaction, hoping to obtain approval to sell silicon transistors to Poland. The French argument rested on three main pillars. Practically, they argued that this sale involved equipment that was "not so sophisticated that the Soviets or East Europeans…could not furnish it to the Poles" themselves. Politically, they argued that should France lose this contract, Poland would become increasingly dependent on the Soviet Union at a time when the West was trying to bring Eastern Europe into its fold.[30] Turning to economic justifications, they argued that this contract was part of a broader French-Polish industrial venture and a necessary component to the trade engagement agenda.[31]

The U.S. COCOM delegation and relevant agencies in Washington took the French request seriously, and a lively inter-agency debate ensued. The Department of Defense concluded that there was "no evidence" that the Soviet bloc had "sufficiently mastered the production process to satisfy their basic strategic needs" and pointed out that the development of the production facility in Poland could provide the Soviet bloc with the capabilities to produce military grade transistors—a prospect Defense analysts believed was likely given the shortages in the Soviet bloc. CIA analysts concurred, noting that approval of the French request "would be of major importance

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[28] "Memorandum From the Executive Secretary of the Department of State (Eliot) to the President's Assistant for National Security Affairs (Kissinger)," August 7, 1969, *FRUS*, 1969-1972, vol IV, Foreign Assistance, International Development, Trade Policies, Document 360.

[29] "Draft Memorandum for President Nixon Prepared in the Department of Defense," October 14, 1969, *FRUS*, 1969-1972, vol IV, Foreign Assistance, International Development, Trade Policies, Document 364.

[30] "Memorandum From C. Fred Bergsten and Helmut Sonnenfeldt of the National Security Council Staff to the President's Assistant for National Security Affairs (Kissinger)," August 20, 1969, *FRUS*, 1969-1972, vol IV, Foreign Assistance, International Development, Trade Policies, Document 362.

[31] "Draft Memorandum for President Nixon Prepared in the Department of Defense," October 14, 1969, *FRUS*, 1969-1972, vol IV, Foreign Assistance, International Development, Trade Policies, Document 364.

not only to Poland but also to the USSR." The Defense analysts laid out three options for the United States with respect to the French request: permit the sale, express no objections on the condition that additional safeguards are included, and register an outright rejection. In assessing the three options, the analysts acknowledged that while approval would strengthen U.S.-French relations and the sale provided a valuable opportunity to bolster engagement with the Soviet bloc, they ultimately concluded that the security risks outweighed any potential benefit. They thus recommended that the United States reject the French exemption request.[32] Despite the Department of Defense's indictment, Richard Nixon and Henry Kissinger followed the spirit of the 1969 EAA, directed the State Department to express no objection at COCOM, and allowed the initial sale of silicon transistors to go through.[33]

Despite Nixon and Kissinger's willingness to go with the "free trade spirit" of the 1969 EAA, neither man was a committed free trade advocate, and their willingness to back the State Department's preference for export control liberalization was far from a given conclusion. Kissinger and Nixon both viewed support for or against free trade as an instrument to furthering American power at home and abroad. They favored free trade policies when they perceived them as advantageous for wielding U.S. power in the international arena, as evidenced by their support for the Tokyo round of GATT negotiations. But during their time in office, they also implemented numerous policies that worked counter to free trade goals, such as Nixon's New Economic Policy that included protectionist measures.[34] Nevertheless, Nixon and Kissinger both responded favorably to the French position on this sale of technology because they believed such support was

[32] "Draft Memorandum for President Nixon Prepared in the Department of Defense," October 14, 1969, *FRUS*, 1969-1972, vol IV, Foreign Assistance, International Development, Trade Policies, Document 364.
[33] "Memorandum From the President's Assistant for National Security Affairs (Kissinger) to the Under Secretary of State (Irwin)," October 20, 1969, *FRUS*, 1969-1972, vol IV, Foreign Assistance, International Development, Trade Policies, Document 365.
[34] Sargent, *A Superpower Transformed*, 100-130.; Irwin, *Clashing Over Commerce*, 546, 549-551.

necessary to preserve the political strength of the U.S.-French relationship and avoid serious fractures in the Western alliance. These values and framework continued to play out over the subsequent episodes of this trade drama.

A year after the initial approval, the French submitted the second stage request, which focused on the sale of the associated technology and knowhow. This sale would enable the Poles to produce their own line of integrated circuits, a prospect the Departments of Defense, State, and Commerce all agreed involved "a substantial increase in the security risk." They argued that this technology had been "high on the Soviet shopping list" and Polish acquisition of Western electronic technology would almost certainly make its way into Soviet hands. They also noted that approval of this sale would make it almost impossible to maintain any COCOM embargoes on this line of technology.[35] They thus uniformly advocated for a rejection of the French request.

The wall of agency opposition, however, began to crumble after they met with the French delegation. Just as one NSC staffer had previously warned, the French visit led the State Department to lift its opposition to the sale.[36] The French convinced the State Department that civilian and military integrated circuits were produced on separate production lines, thereby solving its earlier concerns about the production of military-grade circuits and neutralizing its threat to U.S. security.[37] The Departments of Defense and Commerce refuted these conclusions,

[35] "Action Memorandum from Helmut Sonnenfeldt of the National Security Council Staff to the President's Assistant for National Security Affairs (Kissinger)," October 20, 1970, *FRUS*, 1969-1972, vol IV, Foreign Assistance, International Development, Trade Policies, Document 366.

[36] The NSC staffer's warning about the Department of State's defection can be seen here: "Action Memorandum From Helmut Sonnenfeldt of the National Security Council Staff to the President's Assistant for National Security Affairs (Kissinger)," October 20, 1970, *FRUS*, 1969-1972, vol IV, Foreign Assistance, International Development, Trade Policies, Document 366.; The actual defection is noted here: "Memorandum From the Executive Secretary of the Department of State (Eliot) to the President's Assistant for National Security Affairs (Kissinger)," January 22, 1971, *FRUS*, 1969-1972, vol IV, Foreign Assistance, International Development, Trade Policies, Document 368.

[37] "Memorandum From the Executive Secretary of the Department of State (Eliot) to the President's Assistant for National Security Affairs (Kissinger)," January 22, 1971, *FRUS*, 1969-1972, vol IV, Foreign Assistance, International Development, Trade Policies, Document 368.; "Memorandum From C. Fred Bergsten and Helmut Sonnenfeldt of the National Security Council Staff to the President's Assistant for National Security Affairs

arguing that even if they are on separate production lines, commercials lines still produce significant shares of military use circuits. Furthermore, they argued that such a facility would give Eastern Europe the capabilities to produce high-quality integrated circuits in large volumes.[38] These drastically different views on the security risks and benefits to trade put the agencies on a collision course that could only be resolved by the president.

The French responded by shrinking the second stage request to only ask for the approval of certain aspects of the technology production. The State Department supported the modified proposal, arguing that refusal would hurt U.S.-French relations and the French would proceed with the transaction even if the United States blocked the request in COCOM. The Departments of Commerce and Defense refused to accept these arguments. They argued that the sale still supported production of semiconductors, high speed computers, and military technologies within the broader Soviet bloc and would set a dangerous precedent in COCOM. Summarizing the agency debate in his memo to Nixon, Kissinger sided with the State Department, leaned into his focus on preserving international political stability, and argued that the consequences of refusal on the U.S.-French relationship outweighed any sort of economic security considerations. He thus recommended the president approve the transaction.[39] Nixon followed Kissinger's advice and authorized the sale in June 1971.[40]

(Kissinger)," February 12, 1971, *FRUS*, 1969-1972, vol IV, Foreign Assistance, International Development, Trade Policies, Document 370.

[38] "Memorandum From C. Fred Bergsten and Helmut Sonnenfeldt of the National Security Council Staff to the President's Assistant for National Security Affairs (Kissinger)," February 12, 1971, *FRUS*, 1969-1972, vol IV, Foreign Assistance, International Development, Trade Policies, Document 370.

[39] "Action Memorandum from the President's Assistant for National Security Affairs (Kissinger) to President Nixon," June 2, 1971, *FRUS*, 1969-1972, vol IV, Foreign Assistance, International Development, Trade Policies, Document 375.

[40] "Memorandum From Secretary of Defense Laird to President Nixon," June 22, 1971, *FRUS*, 1969-1972, vol IV, Foreign Assistance, International Development, Trade Policies, Document 376. Note that the Secretary of Defense voiced sharp disapproval of Nixon's conclusions. He argued that this coupled with a number of similar decisions "are virtually certain to weaken seriously if not destroy the existing system of security trade controls" which are, he argued, a vital part of the U.S. defense structure. He continues, "In order to preserve that margin of military power required by the deterrent strategy upon which our security depends, it is not enough to maintain our Defense

The approval of this sale highlights three implications of the United States' export control pivot. First, it illustrates how politicians used export control policy to advance their political agendas. Throughout the agency and NSC deliberations over the French request, there was no discussion of the economic implications of a whipsawed export control policy; all of the discussions were focused on the political fallout of refusing a French request or the effects on military security. Thus, while export controls had very tangible effects on the global economy, American politicians wielded the controls primarily as a political tool and a means through which to operationalize their policy of détente and trade liberalization in a manner acceptable to the American public, U.S. allies, and inter-agency preferences.

Second, this example highlights the role allies played in clarifying U.S. policy. It is one thing for the United States to advocate for trade promotion and liberalized controls; it is another thing for U.S. officials to be confronted by a request that tests the limits of the conflicting goals outlined in a piece of legislation. Without the French request and other similar European proposals, the boundaries and limits of the new U.S. approach would have remained vague.

Third, this case study shows that despite the sharp decline in U.S. economic leverage, the United States remained the dominant player in COCOM and international trade policy. The French delegation had initially approached U.S. officials outside the confines of COCOM; arriving at the COCOM negotiations with the United States already on its side would have paved the way for more immediate approval of their request. Similarly, many of the other participating countries took their cues from the U.S. delegation. If the United States registered their approval, many other countries followed suite; if the United States expressed reservation, many other participating

establishment. We must also frustrate as far as possible the build-up of forces which are or may be arrayed against us. An effective system of controls over the export to Communist countries of strategic commodities therefore contributes directly to our national security and can help to keep U.S. military expenditures at a minimum."

countries would also withhold their votes of support. Thus, at the end of the day, COCOM was fundamentally an American-led institution, and despite occasional outbursts of European discontent, COCOM policy reflected the path charted by the U.S. Congress.

CHAPTER 4:
The Critical Technologies Approach and the 1979 Export Administration Act

"Since the 1960s, export controls have proven to be one of the most contentious issues in U.S. foreign policy."[1]

I. INTRODUCTION

While there were occasional tensions in the 1950s and 1960s over the export of technology and 'know-how,' much of the initial export control legislation and COCOM debates focused on restricting the trade of goods and commodities. But as the Cold War progressed and Europe and the Soviet Union recovered their production capabilities, the U.S. economy alone was no longer sufficient to overpower the Soviet Union. Instead, the U.S. national security enterprise increasingly came to view technological superiority and international technology leadership as vital to protect U.S. security needs and outcompete the Soviet Union.[2]

This chapter focuses on how U.S. officials in the export control community tailored export control policies to preserve U.S. technological dominance and to wage the Cold War along economic lines. It analyzes the emergence of the Bucy Report and follows its impact on the development of the critical technology approach and the 1979 Export Administration Act (1979 EAA). It contrasts the 1979 EAA with earlier legislation and demonstrates that while the new

[1] Michael Mastanduno, "The United States Defiant: Export Controls in the Postwar Era." *Daedalus* 120, no. 4 (Fall 1991): 93, https://www.jstor.org/stable/20025405.

[2] Note economic and technological superiority are not equivalent concepts. A country can be technologically superior but lag in foundational principles foundations like gross domestic product (GDP) or unemployment rates. In contrast, a country can also have high GDP and low unemployment and be technologically inferior. This 1979 EAA pivot highlights the United States' realization that it needed to be economically and technologically superior in order to effectively outcompete the Soviet Union.

legislation did not result in meaningful adjustments to the control lists, it fundamentally altered the underlying assumptions of the U.S. export control framework and laid the foundation for the emerging technology approach policymakers use today. This chapter concludes with a discussion of the high-profile 1987 Toshiba-Kongsberg violation of COCOM's export controls and uses the case study to demonstrate the challenges of voluntary enforcement and limits of relying on a multilateral framework to protect U.S. national security interests.

II. A NEW EXPORT CONTROL APPROACH FOR CRITICAL TECHNOLOGIES

Between the passing of the 1969 EAA and the adoption of the 1979 EAA, the global economy underwent a number of violent shocks. In 1973, the Bretton Woods system officially collapsed. A few years prior, Nixon had severed the link between gold and the U.S. dollar in a move that began the worldwide shift to floating exchange rates, shook the foundations of the United States' relationship with Western Europe and Japan, and marked a sharp transition in the United States' role within the international financial system. No longer was the United States able to shoulder all the economic burdens it had taken on at the end of the World War II. The collapse of the Bretton Woods fixed exchange rate system marked the transition to a new era where responsibilities and power needed to be more equitably distributed. At the time, however, many observers did not appreciate how momentous of a shift this was; many viewed this period as an interlude and expected stability to return. Nevertheless, this transition served as a major shock to the global economy and provided the United States with the necessary flexibility to enter into the age of globalization.[3] Also in 1973, the first oil crisis emerged, sending shocks around the world

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[3] Daniel J. Sargent, *A Superpower Transformed: The Remaking of American Foreign Relations in the 1970s* (Oxford University Press, 2015)., 100-130.; Jeffrey E. Garten, *Three Days at Camp David: How a Secret Meeting in 1971 Transformed the Global Economy* (New York: HarperCollins, 2021).

and introducing heightened levels of uncertainty into energy prices and energy markets.[4] Inflation rates in the United States also reached staggering heights, touching double-digit highs in the middle of the decade and placing immense strains on the everyday consumer.[5] In short, the global economy in the 1970s was characterized by volatility and uncertainty, creating numerous challenges for policymakers around the world and immense uncertainty for households and businesses alike.

Meanwhile in the political realm, seismic shifts were also underway. In 1972, President Richard Nixon made his famous trip to the People's Republic of China (PRC), preparing the countries for the normalization of relations and rocking the balance of power between the Soviet Union, the United States and the PRC.[6] In 1973, the United States' direct military involvement in the Vietnam War finally came to a close, marking the end to a years-long intervention that had divided the American public and redirected the course of history in southeast Asia. Towards the latter half of the decade, the Soviet Union and the United States made notable efforts towards advancing non-proliferation goals, and in June 1979, President Jimmy Carter and General Secretary Leonid Brezhnev signed the second Strategic Arms Limitation Treaty (SALT II).[7] The 1970s was a turbulent decade and left many wondering whether a strategy of détente could successfully advance U.S. interests on the global stage.

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[4] Sargent, *A Superpower Transformed*, 131-161.
[5] "Sticky Price Consumer Price Index Less Food and Energy," Federal Reserve Bank of Atlanta, retrieved from FRED, Federal Reserve Bank of St. Louis, accessed on March 23, 2023, https://fred.stlouisfed.org/series/CORESTICKM159SFRBATL.
[6] Odd Arne Westad, *The Cold War: A World History* (New York: Basic Books, 2017), 395-421.
[7] "Strategic Arms Limitations Talks/Treaty (SALT) I and II," Department of State Office of the Historian, accessed March 23, 2023, https://history.state.gov/milestones/1969-1976/salt.

Results of the 1960s Export Control Liberalization

By the mid-1970s, many different reactions and responses to the trade control liberalization of the late 1960s had emerged. Some trade lawyers, such as Janet Ecker, argued that the export promotion policies of the 1960s and 1970s "may strengthen the military capabilities of potential adversaries and endanger the national security of the United States."[8] Ecker highlighted that after the 1969 EAA, the exchange of scientific and technological information and trade activity "increased markedly" between the West and the Soviet bloc. She also noted a shift in the contents of that trade; exports increasingly comprised of high technology goods and processes rather than simpler agricultural products and basic manufactured goods. This adjustment concerned U.S. officials who feared that "the United States was supplying the Soviet military with the expertise and complex equipment that would raise Soviet technology to equal that of the western world."[9]

A 1979 report from the Office of Technology Assessment's (OTA) Technology and East-West Trade Advisory Panel chaired by McGeorge Bundy echoed some of Ecker's arguments. This report noted that efforts to use trade to moderate Soviet policy as part of the strategy of détente had led to "inconclusive results;" it appeared that increased U.S.-Soviet trade failed to moderate Soviet foreign or domestic policy as its proponents had promised. The report also noted that while observers largely agreed that American and Western technology contributed to Soviet military capabilities, they disagreed on the significance of those contributions. The report ultimately concluded rather diplomatically that "the viability of détente as a strategy will depend on what is

[8] Janet E.B. Ecker, "National Security Protection: The Critical Technologies Approach to U.S. Export Control of High-Level Technology," *Journal of International Law and Economics* 15, no. 1 (1981): 576, https://heinonline.org/HOL/Page?handle=hein.journals/gwilr15&div=26&g_sent=1&casa_token=&collection=journals.

[9] Ecker, "National Security Protection," 581-582.; Sentiment echoed in: Ed Zschau, "Export Controls and America's Competitive Challenge," *High Technology Law Journal* 1, no. 1(1986): 13, https://www.jstor.org/stable/24122393.

expected of it" and the chosen metrics of success.[10] In essence, it leaves ample room for both critics and supporters to interpret 1970s export control policy results to their advantage.

Soviet Espionage and Technology Acquisition

It is hard, however, to draw a causal linkage between the liberalization of export control policy and advancements in Soviet military capabilities because so much of Soviet innovations were based on espionage and illegal acquisition of technology. For much of its history, Russia had imported technology from abroad to facilitate domestic developments. The practice began in its first "systematic and nationwide" form during the reign of Peter the Great (1682-1725). During his reign, Peter turned to foreigners to acquire the know-how, ideas, and hardware to bolster Russia's manufacturing and mining industries. The practice continued in various forms throughout the 18th and 19th century modernization efforts, Vladimir Lenin's New Economic Policy, and the post-Stalin era. Thus, while efforts to *illegally* acquire Western technology may have accelerated in the 1970s, this development remained largely consistent with historic Russian and Soviet practice. As the 1979 OTA report noted, it was "clear that Western technology has long been looked on as a way to overcome domestic economic shortcomings" and that "[t]he centralization of economic decisionmaking [*sic*], particularly as it relates to the selection and use of foreign technology, has been practiced in Russia for at least 300 years."[11]

Specifically in the context of the Cold War, Soviet officials faced three motivations in developing systematic efforts to acquire American and European technology. First, acquisition of Western technology was necessary when the Soviet bloc lacked indigenous production capabilities. The Soviet economic model did not incentivize innovation in the same way the U.S.

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[10] Office of Technology Assessment. "Technology and East-West Trade." NTIS order #PB83-234955. November 1979, 11-12, 70, https://www.princeton.edu/~ota/disk3/1979/7918/7918.PDF.
[11] Office of Technology Assessment. "Technology and East-West Trade," 208.

and European economies did. As a result, the Soviet Union's technological capabilities grew at a much slower pace compared to the United States, creating an ever-increasing technological gap between the two great powers. Legal and illegal technology acquisition could therefore be used to help the Soviet Union 'catch-up' to Western capabilities and short-circuit the time-intensive research and development (R&D) process. Second, tech acquisition allowed officials to divert money and resources that could have been used for R&D to other projects. And third, it decreased the risks that surrounded the R&D investment that it did fund.[12] Such acquisition efforts, if pursued successfully, could save the Soviet economy billions of dollars.

Because of these anticipated benefits, Soviet officials developed and pursued a robust program to acquire Western technology, relying on a blend of legal and illegal means. Legal efforts included the use of legal trade channels and academic scientific exchanges—efforts made possible in the climate of détente.[13] A 1982 assessment from the CIA's Technology Transfer Assessment Center concluded that of the Soviet Union's militarily significant technology acquisitions, only 20-30 percent were acquired through legal means.[14] In contrast, the CIA estimated that illegal acquisitions made up as much as 70 to 80 percent of the militarily significant technology acquired by the Soviet Union.[15] Illegal efforts included the use of dummy firms to bypass COCOM restrictions, industrial espionage, efforts to recruit foreign scientists and technologists to feed

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[12] "The High-Tech Secrets Russia Seeks in West," *U.S. News & World Report*, May 3, 1982, republished in "Technology Transfer and National Security Issues." Congressional Research Service. July 1, 1982. https://digital.library.unt.edu/ark:/67531/metacrs9232/?q=cocom.; "Soviet Acquisition of Western Technology," Central Intelligence Agency," April 1982, republished in "Technology Transfer and National Security Issues," 9, 11.; "Paper Prepared in the Central Intelligence Agency," August 1977, *FRUS*, 1977-1980, vol VI, Soviet Union, Document 40.; Office of Technology Assessment. "Technology and East-West Trade," 50., Caspar W. Weinberger, "The Technology Security Program: A Report to the 99th Congress - Second Session," U.S. Department of Defense, 1986, 10, https://apps.dtic.mil/sti/pdfs/ADA194106.pdf.

[13] "Soviet Acquisition of Western Technology," republished in "Technology Transfer and National Security Issues," 3-4. For more discussion on the role of students and academics engaging with start-ups, see pages 5-6.

[14] "Soviet Acquisition of Western Technology by Major Loss Categories," Central Intelligence Agency, March 23, 1982, https://www.cia.gov/readingroom/document/cia-rdp83m00914r001200090030-1.

[15] "Soviet Acquisition of Western Technology by Major Loss Categories," Central Intelligence Agency, March 23, 1982, https://www.cia.gov/readingroom/document/cia-rdp83m00914r001200090030-1.

information back to the Soviet bloc, and other infiltration methods managed by Soviet intelligence services.[16] As the 1970s progressed, the Soviet Union increasingly relied on illegal acquisition of U.S. and Western European technology to meet its security needs because of its hard currency shortages and reduced U.S. cooperation on science and technology programs.[17]

While few disputed the existence of the Soviet Union's illegal acquisition program, there was considerable disagreement on how dependent the Soviet military was on American and European technology. One 1979 OTA report argued that while technology-intensive products made up a small share of the Soviet Union's total imports from the West, their value to the Eastern bloc was "high relative to other imports." Nevertheless, the report concluded that for the industries that relied most heavily on technology transfers from the United States and Western Europe, the technology gap between the Soviet Union and the United States had barely closed.[18]

A 1977 paper prepared by the CIA disputed this view. CIA analysts noted that Soviet industry was "helped greatly" by Western technology acquisitions, as such acquisitions "increase[d] the quality and quantity of output and reduc[ed] costs."[19] A 1986 report from Secretary of Defense Caspar Weinberger echoes this sentiment. He notes that "[t]he Soviets have thus been able to translate their technology into accelerated development and deployment schedules," which has "diminished the [United States'] qualitative lead in technology which the West must maintain in order to preserve its security."[20] One congressional consultant on East-West trade quipped that the West was "virtually subsidizing Soviet military power" through such

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[16] "Soviet Acquisition of Western Technology," republished in "Technology Transfer and National Security Issues," 3-4.
[17] "Soviet Acquisition of Western Technology," republished in "Technology Transfer and National Security Issues," 3.; For more discussion on this "change in tactics," see: "Soviet Espionage Siphons U.S. Know-How," *Baltimore Sun*, January 31, 1982, republished in "Technology Transfer and National Security Issues," 18.
[18] Office of Technology Assessment, "Technology and East-West Trade," 6.
[19] "Paper Prepared in the Central Intelligence Agency," August 1977, *FRUS*, 1977-1980, vol VI, Soviet Union, Document 40.
[20] Weinberger, "The Technology Security Program," 10.

efforts.[21] In short, there was a growing sense across multiple realms of government that illegal Soviet technology acquisitions were a problem that needed to be addressed.

To truly understand how dependent the Soviet Union was on Western technology and how much of its growth can be attributed to these illegal acquisitions, the counterfactual must be assessed: what would have been Soviet capabilities in the absence of illegal acquisitions? Such analysis is beyond the scope of qualitative assessments, but recent work from economists Albrecht Glitz and Erik Meyersson found a causal effect between industrial espionage and productivity advancements. Their work analyzes West to East German information flows from Stasi informants between 1970 and 1989 to determine whether industrial espionage narrowed sectoral total factor productivity (TFP) gaps between West and East Germany. The authors used a dataset comprising the entire collection of information gathered by Stasi informants between 1970 and 1989—189,725 unique pieces of information—to run their series of regressions. Their results "suggest that the ratio of East-to-West German TFP…would have been 13.3 percent lower in the absence of industrial espionage" and that industrial espionage in the technology sector "was vital to avoid a significant further opening of the technological gap."[22] Glitz and Meyersson's work serves as the first empirical assessment of how industrial espionage impacts a country's technological capabilities.

This study has a number of direct implications for this historical analysis. First, while it does not specifically address trade and information flows between the Soviet Union and the United States, the dyad of focus is very relevant to a Cold War context and reflects many of the divisions that typified U.S.-Soviet relations. Second, the study is focused on a nineteen-year period relevant

[21] "Soviet Espionage Siphons U.S. Know-How," republished in "Technology Transfer and National Security Issues," 18.
[22] Albrecht Glitz and Erik Meyersson, "Industrial Espionage and Productivity," *American Economic Review* 10, no. 4 (April 2020): 1057, DOI: 10.1257/aer.20171732.

to this chapter's analysis; many of the contextual factors that impacted information flows in Germany would have impacted Western-Soviet information flows in similar ways. Third, the authors run multiple robustness checks to assess the impact of other confounding variables.[23] They were therefore able to isolate the effect of illegal technology information flows on the development of technological capabilities and draw a causal linkage. By doing so, their research can be extrapolated to other scenarios and serve as the basis for further analyses on the role of illegal acquisitions on technological developments. There are, however, limitations to this extrapolation. The East German industrial espionage program is generally considered to be one of the most successful programs of its type, and thus the magnitude of the impact of espionage on East German capabilities may not be equivalent for other countries, like the Soviet Union.

Although U.S. analysts at the time were unable to quantify the impact of Soviet illegal technology acquisitions like we can do today, they nevertheless remained concerned about the impact these transfers were having on Soviet military capabilities. As the 1970s progressed, the issue increasingly became a high priority for Congress and the Carter administration. They determined that the existing control framework was unable to address the threat and a new approach was needed to better control the flow of technology to the Soviet Union.

The Bucy Report

The most influential effort to reassess U.S. export control policy and align controls with technological needs originated from a 1974 task forced established by the Department of Defense's Defense Science Board. For two years, the group, led by J. Fred Bucy of Texas Instruments, conducted a "comprehensive investigation" of the U.S. export control regime.[24] In 1976, the group

[23]Glitz and Meyersson, "Industrial Espionage and Productivity," 1086-1091.
[24] Mastanduno, "The United States Defiant," 95.; Ecker, "National Security Protection," 585.

published their influential report: “An Analysis of Export Control of U.S. Technology—A DOD Perspective,” or what became more commonly known as the Bucy report.[25]

The Bucy report made a number of arguments that became the foundation for the United States’ export control framework through the remainder of the Cold War and remain a key pillar of U.S. export control policy today. At its core, the Bucy report advocated for a reorientation of U.S. export control policy. Instead of controlling end products and material goods, the United States needed to control exports of design and manufacturing technology and information transfers.[26] Bucy’s team argued that controlling technology and information flow was necessary to protect U.S. technological lead time.[27] The report acknowledged that it was “unrealistic and impossible” to completely stop or prevent Soviet technological developments, so the primary goal became—and largely remains to this day—slowing the development of adversary capabilities.[28] It was this emphasis on technology flows and the use of controls to protect U.S. technological superiority that became known as the ‘critical technologies approach.’

Grounded in these beliefs and outlook, Bucy and his team made a number of recommendations. First, they established guidelines to control these critical technologies. This involved “strict control” of design and manufacturing know-how, a focus on “active” mechanisms of technology transfer, and an emphasis on “revolutionary” rather than “evolutionary” technology

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[25] “An Analysis of Export Control of U.S. Technology – A DOD Perspective,” Office of the Director of Defense Research and Engineering, February 1976, https://apps.dtic.mil/sti/pdfs/ADA022029.pdf.

[26] “An Analysis of Export Control of U.S. Technology – A DOD Perspective.”; Jonathan B. Bingham and Victor C. Johnson, “A Rational Approach to Export Controls,” *Foreign Affairs*, Spring 1979, https://www.foreignaffairs.com/united-states/rational-approach-export-controls. Bingham himself writes that the report “concluded that we control too many end products, but do not control the export of design and manufacturing technology as effectively as we should.”; See also Ecker, “National Security Protection,” 583., Mastanduno, “The United States Defiant,” 102.; Zschau, “Export Controls and America’s Competitive Advantage,” 11.

[27] Golan, Jeffrey W. "U.S. Technology Transfers to the Soviet Union and the Protection of National Security," *Law and Policy in International Business* 11 (1979): 1054, https://heinonline.org/HOL/Page?handle=hein.journals/geojintl11&id=1055&collection=journals&index=.; U.S. Congress, Senate, *Hearing before the Committee on International Finance of the Committee on Banking, Housing, and Urban Affairs*, 96th Congress (1980).

[28] Golan, “U.S. Technology Transfers to the Soviet Union and the Protection of National Security,” 1066.

developments.[29] Second, the team acknowledged that because it was impossible to protect any technology forever, controls should be constructed to protect U.S. lead time in critical technology areas.[30] Third, they advocated for a stricter approach to technology transfers with European and allied countries. Bucy's team argued that for the most critical technologies, the United States "should not release know-how beyond its borders," recommended sanctions for COCOM countries that did not adequately protect these technologies, and defended even stricter measures for non-COCOM countries.[31] Although the 1969 EAA had included provisions for some intangible aspects like data transfer controls, the Bucy report marked the first time that U.S. officials seriously considered the control of technology.[32] This new approach proved popular within the defense community, and the Department of Defense formally adopted the Bucy report's conclusions and recommendations in February 1977.[33]

While the defense community applauded its clear stance and recommendations for action, the report faced criticism from a number of different avenues. U.S. industry was one of its foremost critics and voiced a number of concerns. Industry leaders feared that this new approach would lead to longer control lists rather than the shorter, more practical lists the Bucy report promised.[34] They also argued that the Department of Defense had poor knowledge of current technology practices in the Soviet bloc, which would lead to overly restrictive control criteria. Industry leaders further pushed back against the report's criteria for technology control, arguing that it failed to provide

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[29] Scott Jones, "Disrupting Export Controls: "Emerging and Foundational Technologies" and Next Generation Controls," *Strategic Trade Review* 6, no. 9 (Winter/Spring 2020): 36, https://strategictraderesearch.org/wp-content/uploads/2020/01/Emerging-Technologies.pdf.; See also: Ecker, "National Security Protection," 583.; Golan, "U.S. Technology Transfers to the Soviet Union and the Protection of National Security," 1054.
[30] Bingham and Johnson, "A Rational Approach to Export Controls."
[31] "An Analysis of Export Control of U.S. Technology – A DOD Perspective."; For additional commentary, see: Mastanduno, The United States Defiant," 102.
[32] Jones, "Disrupting Export Controls," 36.
[33] Ecker, "National Security Protection," 585.
[34] Office of Technology Assessment. "Technology and East-West Trade," 94.

businesses with sufficient opportunities to sell obsolete technology abroad and thought the proposed unilateral controls would hurt the competitiveness of American businesses and advantage European firms. Business leaders believed that the defense community's concerns over "high technology" transfers were overblow because the Soviet bloc lacked the resources to apply the technologies in the first place and argued that controls were fundamentally ineffective in changing Soviet behavior.[35]

Skepticism and criticism also came from officials within the government. One State Department official argued that the Bucy report was simply a mechanism for Texas Instruments to "restrict the ability of its competitors to sell the technology to manufacture products which TI [Texas Instruments] wanted to sell."[36] OTA pointed out that the Bucy report assumed that analysts could even develop a list of militarily significant technologies. OTA also noted that some government circles echoed industry concerns that the new lists would simply elongate older versions while others feared the critical technologies approach would decontrol too many items to the detriment of U.S. interests.[37]

Bombarded by these divergent viewpoints, the Carter administration decided to get involved. In August 1977, Zbigniew Brzezinski recommended, and President Jimmy Carter approved, a presidential review memorandum authorizing a review of U.S. export control policy as it pertained to U.S. technology in order to put to rest some of the competing department views and develop a consistent administration position.[38] Carter tasked Ben Huberman, a NSC staffer,

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[35] U.S. Congress, House, *Key Issues in U.S.-U.S.S.R. Scientific Exchanges and Technology Transfers before the Subcommittee on Domestic and International Scientific Planning, Analysis and Cooperation of the Committee on Scientific Technology*, 95th Cong. (1979).; Bingham and Johnson, "A Rational Approach to Export Controls."
[36] William Root, interview by Charles Stuart Kennedy, The Association for Diplomatic Studies and Training Foreign Affairs Oral History Project, March 18, 2002, https://adst.org/OH%20TOCs/Root,%20William.toc.pdf.
[37] Office of Technology Assessment. "Technology and East-West Trade," 92, 94.
[38] "Memorandum From the President's Assistant for National Security Affairs (Brzezinski) to President Carter," August 15, 1977, *FRUS*, 1977-1980, vol XX, Eastern Europe, Document 12.

to chair the effort. The final report arrived in March 1978 and called for the establishment of a technology transfer group within the NSC to coordinate administration policies and recommended that "the policy continue as set, evolving toward increasing control over sensitive technologies and associated end products." Although no presidential decision was ultimately drafted from this report, the administration continued to engage on the issue. In 1978 Carter decided *not* to extend technology controls to Western Europe, as the Bucy report had recommended, arguing that political costs outweighed any national security benefits.[39]

Ultimately, the Carter administration did not play a decisive role in responding to the Bucy report recommendations. With the 1969 EAA up for reauthorization, the momentum and opportunity to re-debate the basic tenants of U.S. export control policy and turn the conclusions and recommendations of the Bucy report into practice fell to Congress.

Congress and the 1979 Export Administration Act

In response to the various views on the Bucy report and outcomes of the 1960s and 1970s trade liberalization, a number of different bills emerged in Congress. One of the most prominent was HR3216, introduced by Representative Lester Wolff of New York and twenty-four co-sponsors. This version would have prohibited the export of *any* critical technology or good to a controlled nation. It also would have given the Secretary of Defense sole responsibility for developing the control list of technologies and goods, required a high level of proof regarding foreign availability, created a strenuous review process before approving export exceptions, and established strict congressional control over presidential action. All of these provisions were

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[39] "Presidential Review Memorandum/NSC-31," August 18, 1977, *FRUS*, 1977-1980, vol XX, Eastern Europe, Document 13.; The PRM noted in this document is filed at the Carter Library, but it is still classified and unavailable for public access.; Mastanduno, "The United States Defiant," 103. Note also how the Carter administration continued the Nixon administration's preference for weighing political costs heavily—even in the face of far reaching economic or national security concerns. This is one area that highlights how differences in political parties did not affect how various administrations approached export control policy.

oriented toward turning the critical technologies approach into law and harkened back to the hawkish approach of the 1951 Battle Act.[40]

This bill faced sharp criticism from the Carter administration. For example, William Root, director of the Department of State's Office of East-West Trade, argued that it would subject too many items to control.[41] Other State Department officials argued that it would lead to too much disagreement with COCOM members and unnecessarily harm U.S. businesses. In short, the Carter administration believed that this was too strict an approach.[42]

Three other versions—largely similar in content—also emerged in 1979. HR2539—or the Bingham Bill after its advocate, Representative Jonathan Bingham of New York—served as the most prominent example of this alternative approach. Relying on arguments and language popular during the 1969 EAA debates, Bingham's bill focused on boosting trade opportunities to "strengthen the domestic economy and serve the national interest."[43] It highlighted how the existing approach left unnecessary uncertainty for the American business community and advocated for a number of procedures to streamline and expediate the existing licensing processes. Bingham argued that excessively strict controls hurt the U.S. balance of trade as well as domestic employment and production.[44] Bingham's bill unsurprisingly proved popular with the U.S. business community, and the bill reported out of committee closely resembled Representative Bingham's proposal.[45]

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[40] Golan, "U.S. Technology Transfers to the Soviet Union and the Protection of National Security," 1082-1086.
[41] U.S. Congress, House, *Extension and Revision of the Export Administration Act of 1969: Hearings and Markup before the Subcommittee on International Economic Policy and Trade of the Committee on Foreign Affairs*, 96th Congress (1979), 129.
[42] Golan, "U.S. Technology Transfers to the Soviet Union and the Protection of National Security," 1087.
[43] U.S. Congress, House, *Extension and Revision of the Export Administration Act of 1969*, 824.
[44] Golan, "U.S. Technology Transfers to the Soviet Union and the Protection of National Security," 1082-1087-1089. Note that the bill also advocated for turning COCOM's informal arrangement into a binding treaty.
[45] Office of Technology Assessment. "Technology and East-West Trade," 123.; Bingham and Johnson, "A Rational Approach to Export Controls."

The Carter administration, however, criticized Bingham's approach because it failed to preserve an option for unilateral controls and advocated for a control list that excluded too many critical goods and technologies.[46] The administration also criticized its recommendation to formalize COCOM into a binding treaty, arguing that even proposing such an idea created a "serious risk" that the existing control regime would unravel.[47]

Throughout the reauthorization process, the House Foreign Affairs Committee's Subcommittee on International Economic Policy and Trade held many hearings on these issues. A number of people ranging from economics professors to industry leaders to a plethora of government officials testified on the issues. But some of the most prominent testimony urging Congress to reject this new approach came from former Secretary of State Dean Rusk and Undersecretary of State George Ball. Rusk argued that the United States needed to increase its exports to remedy the commodities trade deficit. He pointed out that "when we [the United States] refuse to trade for security or political reasons, we should recall that we are depriving ourselves of the benefits of that trade."[48] Going further, he urged Congress to prioritize exports "as a matter of national policy," arguing that "the question is no longer with whom we would like to trade. The question now is how we are to justify penalties imposed upon ourselves."[49] Being even more explicit, Ball argued that "the use of economic denial as an instrument to influence the politics of other nations has been grossly overrated."[50]

Despite Rusk and Ball's sharp reservations to the critical technologies approach and continued reliance on export controls, Carter signed the 1979 Export Administration Act into law

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[46] Golan, "U.S. Technology Transfers to the Soviet Union and the Protection of National Security," 1090-1092.; For administration testimonies, see: U.S. Congress, House, *Extension and Revision of the Export Administration Act of 1969*.
[47] U.S. Congress, House, *Extension and Revision of the Export Administration Act of 1969*.
[48] U.S. Congress, House, *Extension and Revision of the Export Administration Act of 1969*, 7-8.
[49] U.S. Congress, House, *Extension and Revision of the Export Administration Act of 1969*, 11-12.
[50] U.S. Congress, House, *Extension and Revision of the Export Administration Act of 1969*, 20.

on September 28, 1979. The final legislation included elements of the various bills and reflected some of the Carter administration's feedback. At its core, the 1979 EAA adopted the recommendations of the Bucy report, placed a greater emphasis on the control of technologies rather than goods, and signed the critical technologies approach into law.[51] The bill continued to use the export promotion language of the 1969 EAA, arguing that export controls must be aligned with U.S. economic interests, and it also superseded the 1951 Battle Act, marking the official end of its retaliatory sanctions.[52]

The 1979 EAA also tasked the Secretary of Defense with the development of the Militarily Critical Technologies List (MCLT), which would later be merged with the Commerce Control List. This merged list, in theory, would streamline the control of dual-use items and technology and serve as a foundation for the U.S. position in multilateral control discussions. In 1980, the Department of Defense went ahead and established the Militarily Critical Technologies Program (MCTP). This program involved the development of two control lists: the MCTL and the Developing Science and Technologies List (DSTL), a list of emerging technologies that once fully developed, could pose a threat to U.S. national security interests if acquired by U.S. adversaries. Neither list was meant to serve as a de facto control list, but were rather designed to guide the development of the Commerce Control List and inform COCOM decisions.[53]

Despite generally being characterized as a success, the 1979 EAA faced some notable criticism. Critics pointed out, for example, that the critical technologies approach necessitated a high degree of technical expertise in order to develop the lists, and as Root noted, "government

[51] Golan, "U.S. Technology Transfers to the Soviet Union and the Protection of National Security," 1093-1094.; Ecker, Janet E. B. "National Security Protection," 586.; Jones, "Disrupting Export Controls," 35-36.; Zschau, "Export Controls and America's Competitive Challenge," 11.
[52] Golan, "U.S. Technology Transfers to the Soviet Union and the Protection of National Security," 1093.; Office of Technology Assessment. "Technology and East-West Trade," 125-126.
[53] Jones, "Disrupting Export Controls," 38-40.

officials seldom have the technical knowledge in depth necessary to really understand what…[it] was all about."[54] This new approach, while beneficial in theory, required a baseline of technical support that the federal government simply lacked. Additionally, an inherent conceptual challenge of the critical technologies approach was defining what constituted a "critical" or an "emerging" technology.[55] As a Government Accountability Office report noted, dual-use technologies, by their nature, are "challenging to determine the parameter at which a particular technology becomes militarily critical."[56] Some also argued that compared to the earlier development of control lists, the critical technologies approach "may provide a basis for a more expansive interpretation of the DOD's authority."[57]

COCOM countries also voiced concerns about this approach. Western European countries and Japan viewed the sale of militarily significant technology as an economic issue rather than a security issue. One report noted that these allies were "content to rely on the self-interest of the companies affected to protect domestic industry. Any use of export controls for political purposes is largely eschewed."[58] This divergence—in which the United States married economic and security issues but its allies kept them separate—proved a critical challenge throughout COCOM's existence and played a key role in many licensing disagreements throughout the Cold War.[59]

The 1979 EAA's biggest contribution was its introduction of the critical technologies approach. Despite its heavy emphasis on technology, the Cold War trade control lists did not

[54] Root, interview by Charles Stuart Kennedy.
[55] Jones, "Disrupting Export Controls," 40.
[56] "Defense Technology: DOD's Critical Technologies Lists Rarely Inform Export Control and Other Policy Decisions," Government Accountability Office, July 2006, https://www.gao.gov/assets/gao-06-793.pdf.
[57] Ecker, "National Security Protection," 590.
[58] Office of Technology Assessment. "Technology and East-West Trade," 13.
[59] Chad P. Brown, host, "The Cold War Scandal Over Export Controls," Trade Talks (podcast), January 29, 2023, https://tradetalkspodcast.com/podcast/176-the-cold-war-scandal-over-export-controls/. The U.S. team working on multilateral export controls included representatives from the Departments of State, Commerce, and Defense. In contrast, other COCOM members only had representatives from their trade and commerce departments. This often meant that their priorities differed sharply from the U.S. defense community by nature of their agency positions.

change in a meaningful way after the passing of the 1979 EAA, and from an industry or international perspective, there was no significant adjustment in the U.S. position after the 1979 legislation.[60] Rather, what did constitute a significant pivot was the export control community's adjustment from a good and commodities-focused approach to a technology-driven approach.

The legislative framework outlined in the 1979 EAA served as the basis for the U.S. export control regime until its repeal in 2018. Although the legislation is no longer active, its emphasis on emerging technologies and their role in advancing U.S. interests continues to the present day. Many of the debates of the 1970s and 1980s about how to control "keystone technologies" and "dual-use capabilities" remain unresolved and continue to be topics of conversation and heated debate in the halls of Congress and the Pentagon.

III. THE TOSHIBA-KONGSBERG INCIDENT

Most of the other previously discussed case studies focus on license approval challenges and the political dance that accompanied high-profile cases. While these examples highlight various facets of the export control debate, none of them demonstrate the challenges of enforcement and the challenges of controlling both commodities and technologies as well as the 1987 Toshiba-Kongsberg incident does. This incident became one of the highest-profile violations of the COCOM export control regime during the Cold War.

The Toshiba-Kongsberg incident centers on the illegal transfer of nuclear-powered submarine technology from Toshiba and Kongsberg—a Japanese and Norwegian firm, respectively—to the Soviet Union. Submarines were vital components to Soviet and U.S.

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[60] Scott Jones, interview with author, February 13, 2023. Jones notes that when you look at the control lists before and after this legislation, there were not any big changes despite it being such a big policy shift.; Eric Hirschhorn, interview with author, February 20, 2023.

capabilities; both superpowers believed that they would be "the weapon that w[ould] dictate which superpower control[ed] vital sea lanes in any future military exchange."[61]

Central to their functioning were their diesel-powered engines, but diesel power posed two challenges: it made it impossible for submarines to stay out at sea for extended periods of time and made them noisy. As a result, they could easily be located when refueling or by tracking them with sonar technology. But as the Cold War progressed, the United States gained a significant advantage and acquired quieter submarine propellers from a Toshiba-Kongsberg partnership. With this development, the United States quickly pushed its allies to add the software and machinery needed to produce these propellers to the COCOM control lists to preserve its technological lead over the Soviet Union.[62]

For a while, it appeared that COCOM had successfully controlled the technology. But in 1987, the American press revealed that Toshiba and Kongsberg had engaged in a deliberate effort to bypass COCOM restrictions and sell the technology to the Soviet Union.[63] As the story unfolded, the American people learned that in the early 1980s, the Soviet Union had secretly approached Toshiba to acquire the milling machinery used to cut the ship propellers and Kongsberg to acquire the associated computer equipment and software. The companies agreed, encouraged by the lucrative sale, and used a series of falsified documents to deceive Japanese and Norwegian licensing officials.[64] These sales were known at the highest levels within these

[61] Wende A. Wrubel, "The Toshiba-Kongsberg Incident: Shortcomings of Cocom, and Recommendations for Increased Effectiveness of Export Controls to the East Bloc," *American University International Law Review* 4, no. 1 (2011): 257, https://digitalcommons.wcl.american.edu/cgi/viewcontent.cgi?article=1673&context=auilr.
[62] Brown, "The Cold War Scandal Over Export Controls."
[63] David E. Sanger, Clyde Haberman, and Steve Lohr, "A Bizarre Deal Diverts Vital Tools to Russians," *The New York Times*, June 12, 1987, https://www.nytimes.com/1987/06/12/world/a-bizarre-deal-diverts-vital-tools-to-russians.html?searchResultPosition=1.
[64] Morehead, "Controlling Diversion: How Can We Convert the Toshiba-Kongsberg Controversy into a Victory for the West," *Northwestern Journal of International Law & Business* 9 no. 2 (1988): 280-281, https://scholarlycommons.law.northwestern.edu/cgi/viewcontent.cgi?article=1255&context=njilb.; Joseph Edward Gregory, "Controlling the Transfer of Militarily Significant Technology: COCOM After Toshiba." *Fordham*

companies. When employees warned Toshiba's executives that such sales would violate COCOM regulations, Toshiba's president declared that they would "do what had to be done to get the business."[65] Between 1983 and 1984, Toshiba and Kongsberg sold over $17 million of restricted goods and technology to the Soviet Union.[66]

This breach angered U.S. officials and frightened the American public. With silent nuclear submarines, the Soviets were able to close a significant gap in submarine propeller technology and could place nuclear weapons even closer to the United States than they did during the Cuban Missile Crisis.[67] Analysts warned that this illegal acquisition resulted in a twenty-fold reduction in detectable noise levels for Soviet submarines, which greatly impaired the United States' ability to track them.[68] This development also hurt the United States' technological lead; one Pentagon official estimated that the United States would need to spend up to $30 billion in anti-submarine warfare development over 20 years to compensate for these Soviet advancements.[69]

The uncovering of this scandal came at an inopportune time for the Reagan administration. The administration and Congress were in the midst of a significant export control reform effort designed to ease unilateral American controls, as they believed the controls were hurting the competitiveness of American businesses and perpetuating the United States' trade deficit. The

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International Law Journal 11, no. 4 (1987): 865, https://ir.lawnet.fordham.edu/cgi/viewcontent.cgi?referer=&httpsredir=1&article=1199&context=ilj.

[65] Morehead, "Controlling Diversion," 280.

[66] Brown, "The Cold War Scandal Over Export Controls."

[67] Brown, "The Cold War Scandal Over Export Controls."; Stephen D. Kelly, "Curbing Illegal Transfers of Foreign-Developed Critical High Technology from CoCom Nations to the Soviet Union: An Analysis of the Toshiba-Kongsberg Incident." *Boston College International & Comparative Law Review* 12 no. 1 (1989): 183, https://lawdigitalcommons.bc.edu/iclr/vol12/iss1/8/.

[68] Kelly, "Curbing Illegal Transfers of Foreign-Developed Critical High Technology," 190.

[69] Wrubel, "The Toshiba-Kongsberg Incident," 257.

Reagan administration had finally assembled sufficient political support for reform and even made the issue a key point in the 1987 State of the Union address.[70]

This incident, however, put those efforts on hold. Throughout the summer of 1987, the scandal captivated the attention of Congress and the American public.[71] In June, the Senate slapped stiff penalties on Toshiba and Kongsberg.[72] Congressional hearings established that it would cost billions to re-coup the U.S. advantage.[73] Congress also wanted to impose import sanctions on Toshiba and Kongsberg's products and forbid them from competing on future U.S. government contracts. While the Reagan administration opposed this sharp response, White House officials and Congress ultimately agreed to implement limited sanctions and work towards stronger multilateral controls.[74]

The Japanese government responded by revising its domestic export control laws and reforming its supporting agencies. It also forbade Toshiba from selling any products to the Soviet Union for one year, prosecuted the Toshiba employees involved in the sale, expanded the size of its export licensing personnel, and increased its financial contributions to COCOM. Meanwhile,

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[70] Brown, "The Cold War Scandal Over Export Controls."; For more on export controls in the 1987 State of the Union, see: Eric L. Hirschhorn and Joseph Tasker Jr., "Export Controls: Toward a Rational System for Everyone Except Toshiba, with All Deliberate Speed," *Law & Policy in International Business* 20, no. 3 (1989): 373.

[71] Sanger, Haberman, and Lohr, "A Bizarre Deal Diverts Vital Tools to Russians."; David E. Sanger, "Trade Legislation: Counting Ways to Open—and to Close—Markets; Toshiba Affair: Deals That Run Silent and Deep," *The New York Times*, June 21, 1987, https://www.nytimes.com/1987/06/21/weekinreview/trade-legislation-counting-ways-open-close-markets-toshiba-affair-deals-that-run.html?searchResultPosition=8. David E. Sanger, "Retaliation Demanded in High-Tech Division," *The New York Times*, June 18, 1987, https://www.nytimes.com/1987/06/18/business/retaliation-demanded-in-high-tech-division.html?searchResultPosition=6.; "Letter: On Military Security; Norway Bars Illicit Sales to East Bloc," *The New York Times*, June 27, 1987, https://www.nytimes.com/1987/06/27/opinion/letter-on-military-security-norway-bars-illicit-sales-to-east-bloc.html?searchResultPosition=10.; "Toshiba Bashing," *The Wall Street Journal*, July 2, 1987, ProQuest Historical Newspapers, https://proxy1.library.virginia.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fhistorical-newspapers%2Ftoshiba-bashing%2Fdocview%2F135280485%2Fse-2%3Faccountid%3D14678.

[72] Gregory, "Controlling the Transfer of Militarily Significant Technology," 866.

[73] Brown, "The Cold War Scandal Over Export Controls."; Kelly, "Curbing Illegal Transfers of Foreign-Developed Critical High Technology," 190. Kelly argues that it could cost billions to re-establish a technological advantage in this area and cites one estimate from U.S. lawmakers placing the figure at $30 billion.

[74] Kelly, "Curbing Illegal Transfers of Foreign-Developed Critical High Technology," 184.

the Norwegian government similarly barred Kongsberg from any future sales with the Soviet Union, prosecuted the company's executive, and strengthened domestic export control legislation.[75] While many in the United States believed the Japanese and Norwegian governments were letting the companies off lightly, the Reagan administration appeared largely satisfied with their response.

For as much of a firestorm as the incident caused, in August 1988, President Ronald Reagan signed the Omnibus Trade and Competitiveness Act into law. This act made "significant changes" to the 1979 EAA.[76] It surprisingly included efforts to liberalize the U.S. export control regime, although this liberalization was weaker than what American businesses leaders had initially advocated before the crisis. The 1988 Trade Act also included new extraterritorial sanctions and penalties for violating COCOM rules, established that the United States could block violating countries from importing U.S. products, and allowed the U.S. government to sue foreign companies for damages in the event of a violation.[77] All of these efforts were designed to serve as deterrence mechanisms for future violations.

The Toshiba-Kongsberg incident was not the only violation of COCOM's multilateral export controls, but it was one of the most high-level and public-facing incidents and serves as a useful case study to illustrate some of the challenges of multilateral controls. First, this incident highlights the challenges of voluntary enforcement. There was no treaty governing COCOM's operations nor any unified effort to mandate compliance. The system relied on trust between security partners and a willingness to make sacrifices to support shared security interests.

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[75] Kelly, "Curbing Illegal Transfers of Foreign-Developed Critical High Technology," 185.; Morehead, "Controlling Diversion," 285.
[76] Hirschhorn and Tasker Jr., "Export Controls: Toward a Rational System for Everyone Except Toshiba, with All Deliberate Speed," 369.
[77] Brown, "The Cold War Scandal Over Export Controls."; Morehead, "Controlling Diversion," 284.

However, when interests diverged, there were strong incentives to bypass COCOM regulations and exploit the lucrative economic benefits that sales to the Soviet bloc could provide, as Toshiba and Kongsberg both determined.

Second, because voluntary enforcement was a challenge and because the United States relied heavily on COCOM to preserve its technological lead time, this incident showed how much U.S. security interests depended on the action and cooperation of its allies. In the face of globalization and Western Europe's economic recovery, it was practically impossible to preserve the technological superiority of the United States and its allies without full COCOM cooperation.

Third, the incident showed the difficulty of cracking down on COCOM violations. With the numerous punishments outlined in the 1988 Trade Act and various declarations from U.S. officials after the revelation of the Toshiba-Kongsberg sales, COCOM members resisted efforts to add new items to COCOM lists for fear of these reprisals.[78] They thought it would be better to rely on business interests to keep the technology out of Soviet hands rather than rely on formal export controls and risk a harsh crackdown when a company outside of their control decided to violate the rules.

These were all lessons that U.S. officials had been aware of throughout the duration of COCOM's existence. The Toshiba-Kongsberg incident merely emphasized them to a broader audience and provided a tangible example of these concerns. Ultimately, the lessons policymakers internalized from this crisis influenced their decision to dissolve COCOM at the end of the Cold War and remained prominent touchpoints in the negotiations for the 1996 Wassenaar Arrangement.

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[78] Brown, "The Cold War Scandal Over Export Controls."

CHAPTER 5:
Converting COCOM for a Post-Cold War Era and Assessing the Use of Cold War Multilateral Export Controls

I. INTRODUCTION

The late 1980s and early 1990s brought a rush of change in the international arena. In November 1989, the Berlin Wall abruptly fell, serving as a visible manifestation of the collapse of the iron curtain. By the end of 1991, the Soviet Union had dissolved, leaving Russia and all the other former Soviet republics as new and independent states and the United States as the world's sole superpower. This sudden shift in the power dynamics left policymakers and governments around the world suddenly grappling with a new geopolitical landscape. Much of the world's institutions and alliances had been constructed with the U.S.-Soviet conflict in mind. With the Soviet threat eliminated, were these institutions and frameworks still needed? Which of them did the world need to keep and which were quickly becoming mere relics of the Cold War era? It was in this context that U.S. and European policymakers decided to dissolve COCOM, the world's first multilateral export control framework that had governed trade controls for over 40 years.

This final chapter has two primary focuses. It begins with a brief discussion of U.S. and Western European deliberations over how to adjust the Cold War export control framework for a post-Cold War era. It then transitions into a broader assessment of the United States' use of multilateral export controls during the Cold War, how this use changed over the course of the conflict, international cooperation efforts, and the efficacy of the COCOM export control regime. This broader assessment will include lessons to be gained from the Cold War experience that should influence how today's policymakers craft U.S. export control policy and cooperate with U.S. allies in our present changing and turbulent world.

II. THE WASSENAAR ARRANGEMENT AND REBUILDING COCOM FOR A POST-COLD WAR ERA

With the collapse of the Soviet Union and a transatlantic reckoning with the institutions and structures that had governed the Cold War years, officials turned to COCOM to determine its necessity in this new era. At a high level COCOM meeting in November 1993, COCOM's participating countries concluded that it was time to dissolve COCOM, and they set March 1994 as the termination date. Although they believed COCOM as an institution was no longer necessary, the participating countries still defended the use of multilateral export controls. They decided to continue discussing the issue with the goal of operationalizing a new export control framework by the time of COCOM's official dissolution.[1] The negotiating teams failed to meet this self-imposed deadline, and it took them until 1996 to adopt a new export control framework to govern this new era in international relations.

The Decision to Dissolve COCOM

In the early 1990s, policymakers and officials on both sides of the Atlantic believed COCOM was poorly suited for the challenges of the post-Cold War era. COCOM had been designed for the U.S.-Soviet conflict and for engaging in Cold War economic warfare. It had not been designed to manage the non-proliferation issues of the 1990s nor was it designed to have the global applicability necessary for the post-Cold War era.[2]

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[1] Michael Lipson, "The Reincarnation of COCOM: Explaining Post-Cold War Export Controls" *The Nonproliferation Review* (1999): 34, 37. https://www.nonproliferation.org/wp-content/uploads/npr/lipson62.pdf.; Cupitt, and Grillot, "COCOM is Dead, Long Live COCOM," 361.

[2] James Lewis, interview with author, February 17, 2023.; Lipson, "The Reincarnation of COCOM," 33.

Beyond these immediate issues, U.S. and European policymakers had a number of other reasons for dissolving COCOM. First, globalization and threats to economic competitiveness led officials to fear that COCOM's trade controls were inhibiting participating countries' ability to integrate with the global economy. In the United States, for example, domestic economic growth increasingly depended on foreign markets, and continued reliance on strict export controls limited the United States ability to fully realize the benefits of globalization.[3] Industry and business leaders understood what was at stake, and they aggressively lobbied Congress to relax both national security and foreign policy controls.[4] They argued that as one of the world's leading advocates for globalization, it was time to redesign U.S. export control policy to better align with global trends and U.S. priorities.

Second, the United States and Western Europe were focused on market reform in the former Soviet states, and they believed stringent export controls were inhibiting reform efforts. Third, there was a widespread belief, especially on the continent, that the United States had been an overly dominant presence in COCOM. European officials believed a new institutional framework was needed to relegate the United States to a participating country rather than the dominant authority.[5] Fourth, officials had watched Iraq become powerful in the early 1990s because of its ability to purchase arms and dual-use technologies. They believed a more effective export control framework could assist with counter-terrorism efforts and help prevent the emergence of other destabilizing states. With all these issues in mind, officials concluded that their

[3] Lipson, "The Reincarnation of COCOM," 34.; Michael Mastanduno, "The United States Defiant: Export Controls in the Postwar Era." *Daedalus* 120, no. 4 (Fall 1991): 91, https://www.jstor.org/stable/20025405.
[4] Richard T. Cupitt and Suzette R. Grillot, "COCOM is Dead, Long Live COCOM: Persistence and Change in Multilateral Security Institutions," *British Journal of Political Science* 27, no. 3 (July 1997): 362, https://www.jstor.org/stable/194122.
[5] Lipson, "The Reincarnation of COCOM," 34.; Lewis, interview with author.

new goals could not be achieved within the existing COCOM framework. They thus rejected reform and opted for the establishment of an entirely new framework.

To be clear, COCOM was not dissolved due to the inability to cooperate in the changing geopolitical climate nor was it a result of participating countries' rejection of institutionalized export control. In fact, cooperation had actually increased among member countries after 1989. For example, there was an increased use of compromise policy tools after 1989 and increased harmonization of national laws, regulations, and enforcement procedures.[6] Additionally, the collapse of COCOM cannot be equated with members' rejection of institutionalized export control coordination.[7] Despite their reservations, Europeans and Americans alike believed that formal coordination and cooperation was essential in advancing their interests on the international stage. This was evidenced by their continued faith in NATO, willingness to replace COCOM with a new arrangement, and continued engagement in international fora throughout the 1990s. Thus, it appears that officials rejected COCOM reform and opted for complete replacement not because they rejected its mission or lacked commitment to institutional cooperation, but rather to send a clear signal that COCOM's economic warfare mission was over and it was time to start with an entirely new framework.

The Wassenaar Arrangement

In 1996 after months of meeting in Wassenaar, Netherlands—a Danish municipality near The Hague—the United States and 33 other nations adopted the Wassenaar Arrangement on Export Controls for Conventional Arms and Dual-Use Goods and Technologies as a loose

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[6] Cupitt and Grillot, "COCOM is Dead, Long Live COCOM," 363, 370. This paper takes a political science approach and focuses on cooperation mechanisms in COCOM and in the transition period to the Wassenaar Arrangement. While less useful from a historiography perspective, it has key insights and lessons on mechanisms of multilateral cooperation and trends in how participating countries engaged in the organization throughout the Cold War.

[7] Lipson, "The Reincarnation of COCOM," 36.

replacement for COCOM and to serve as the foundational control framework for the post-Cold War era. As its name suggests, the Wassenaar Arrangement had two pillars of focus—conventional arms control and the control of dual-use goods and technologies—and items in these categories were placed under carefully designed control lists. Like COCOM, the Wassenaar Arrangement was non-binding and lacked a formal treaty.[8] But unlike COCOM, it adopted a different method of control coordination. Instead of controlling trade in restricted items at the international level, the new agreement focused on coordinating controls for restricted items at the national-level.[9] It also placed a much greater emphasis on commerce, which highlights the influence of European powers, industry, and globalization in the negotiating process.[10]

But one of the most important characteristics of the Wassenaar Arrangement was its broader membership and efforts to include Russia and former Soviet states. Like Franklin Roosevelt's efforts at the end of World War II to tie the Soviet Union into the new international order, some officials and scholars advocated for Russian integration into the international security architecture to prevent a resurgence of conflict. European and Japanese policymakers in particular believed Russian participation was necessary for the Wassenaar Arrangement's effectiveness and legitimacy. U.S. officials initially disagreed, citing Russian arms sales to Iran. Nevertheless, U.S. officials acquiesced in June 1995, allowing Russian participation in the new agreement. This decision, however, came too late for meaningful Russian participation in the Wassenaar

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[8] Karim K. Shehadeh, "The Wassenaar Arrangement and Encryption Exports: An Ineffective Export Control Regime that Compromises United States' Economic Interests." *American University International Law* Review 15, no. 1 (1999): 272-273, https://digitalcommons.wcl.american.edu/cgi/viewcontent.cgi?article=1264&context=auilr&httpsredir=1&referer=.

[9] "Wassenaar Arrangement on Export Controls for Conventional Arms and Dual-Use Goods and Technologies: Public Documents Volume I - Founding Documents." WA-DOC (19) PUB 007. December 2019. https://www.wassenaar.org/app/uploads/2021/12/Public-Docs-Vol-I-Founding-Documents.pdf.; Lipson, "The Reincarnation of COCOM," 39.

[10] Lipson, "The Reincarnation of COCOM," 38.

Arrangement negotiations.[11] With Russia and the former Soviet states as members of the Wassenaar Arrangement, the agreement developed a new list of "countries of concern," marking Iran, Iraq, Libya, and North Korea as the primary targets of the new framework.[12]

The Wassenaar Arrangement was not without its critics. For example, while the broader membership was viewed by many as necessary for the export control regime's effectiveness in the post-Cold War era, others argued that broader membership "seriously weakened [its] mandate."[13] Some American critics argued that the Wassenaar Arrangement did not adequately protect U.S. economic interests. Karim Shehadeh, for example, argues that the Wassenaar Arrangement was "ineffective," specifically for the control of encryption products.[14] Other critics argue that the Wassenaar Arrangement lacked "the discipline, the structure, and the coherence that [COCOM] had."[15] Despite their reservations, the Wassenaar Arrangement has served as one of the world's primary multilateral export control frameworks and continues to play a prominent role to this day.

III. ASSESSING THE USE OF COLD WAR EXPORT CONTROLS

Given the continued reliance of the United States and its allies on multilateral export controls and international arrangements as a key aspect of foreign and national security policy, it is necessary to assess the viability of international cooperation and the efficacy of this approach.

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[11] Lipson, "The Reincarnation of COCOM," 37.; Richard F. Grimmett, "Military Technology and Conventional Weapons Export Controls: The Wassenaar Arrangement." Congressional Research Service, updated September 29, 2006, 3, https://digital.library.unt.edu/ark:/67531/metadc817769/m2/1/high_res_d/RS20517_2006Sep29.pdf.
[12] "Military Technology and Conventional Weapons Export Controls," 3-4.; The Wassenaar Arrangement identified three criteria for participation. Members must have adequate national-level controls, adhere to major non-proliferation control regimes, and establish "responsible" export control policies toward the "pariah countries."
[13] Lipson, "The Reincarnation of COCOM," 38.
[14] Shehadeh, "The Wassenaar Arrangement and Encryption Exports," 277-278.
[15] U.S. Congress, House, *Hearing Before the Subcommittee on National Economic Policy and Trade of the Committee on International Relations*, 104th Congress (1995). From the statement of Dr. Paul Freedenberg, an international trade consultant at Baker & Botts, LLP.

The following pages summarize some of the conclusions from the previous chapters and provide direct answers to the research questions posed at the beginning of this paper.

How did the United States use export controls during the Cold War, and how did its approach change over the course of the Cold War?

Throughout the Cold War, exports controls were one of the most tangible ways that U.S. policymakers operationalized their broad strategic goals. As Chapter 2 highlighted, peacetime export controls were initially used to implement the United States' strategy of containment. Multilateral controls could constrain and slow Soviet military developments and prevent the Soviet Union from exporting its military capabilities to communist allies and partners around the world. Later, during 1970s when the world watched a thaw in U.S.-Soviet relations, COCOM liberalized its export control policies to highlight its members' commitment to détente and improving relations. But when tensions escalated again in the late 1970s and early 1980s and the importance of technology to U.S. security became a frequent topic of conversation in U.S. foreign policy circles, policymakers added a new emphasis on the control of technology. In other words, export controls never drove U.S. policy. Rather, fluctuations in U.S. strategy and foreign policy goals drove the changes in the use and application of multilateral export controls.

Beyond this broad operationalizing of U.S. and European strategy, export controls were used for two specific and distinct purposes: to advance foreign policy goals and protect U.S. and allied security. While there is functionally no difference in how foreign policy and national security controls were applied and implemented at a national level, there is a sharp underlying difference in the motivations that guide these policies and the degree of multilateral cooperation required to achieve their goals.

U.S. policymakers often turned to foreign policy controls as a signaling mechanism, a tool to convey U.S. support or disapproval for a specific policy. Foreign policy controls were often unilateral measures, as they were specific to U.S. geopolitical interests. For example, the Carter administration used export controls to advance its human rights agenda. Carter added cattle prods and other instruments of torture to the U.S. control lists to signal to offending countries the United States' disapproval and commitment to its human rights agenda.[16] Unlike multilateral security controls, these controls were largely ineffective in stopping the offending country from accessing the forbidden product. Because the United States was the only one implementing the controls, the offender could still purchase the products from other countries and markets. U.S. policymakers were not naïve; they did not think that they could stop human rights abuses abroad by forbidding exports of goods that could be used as instruments of torture. But as a matter of principle and a way to signal its disapproval, the United States refused to supply these items to offending countries and thus placed them under strict unilateral control.

In contrast, national security controls went beyond matters of principle; they were explicitly designed to constrain Soviet capabilities and protect the U.S. technological lead. Multilateral cooperation was particularly necessary for national security controls. The only way to constrain or slow Soviet technological development was if all exporting countries agreed to block exports of particular goods and technologies to the Soviet bloc. If a country defected, the controls became meaningless in preventing Soviet military advancements.

These types of controls and the challenges of implementing them were highlighted in the 1987 Toshiba-Kongsberg incident. The United States and its allies added the technology to build quiet submarine propellers to the multilateral control lists in order to protect their security interests and preserve their technological lead. The United States feared that if the Soviet Union acquired these propellers, it could place nuclear submarines mere miles off the coast of the United States

[16] Richard Cupitt, interview with author, February 20, 2023.

and its allies, greatly diminish the United States' technological lead, and pose a serious threat to U.S. security. Unilateral controls would have been completely ineffective in achieving these goals, and multilateral cooperation thus proved a necessity. But when Toshiba and Kongsberg violated these controls and sold the technology and equipment to the Soviet Union, they completely undermined multilateral efforts to control this technology. As chapter 4 detailed, this incident highlighted the inherent challenges of implementing and enforcing multilateral national security controls. It is hard to maintain perfect alignment of visions and interests among countries and businesses, and it is hard to force businesses to act outside of their own economic interests, especially over an extended period of time.

Beyond the different applications and uses of U.S. export controls, there was a notable lack of political polarization and partisanship in how the United States created and implemented them. U.S. export control policy shifted in line with the different strategic approaches of the various Cold War administrations. For example, export controls adopted a human rights flavor during the Carter administration and reflected the Truman administration's commitment to containment in the early 1950s. But beyond these broad, strategic differences, export control policy did not fluctuate in line with partisan politics. Further contributing to the resilience of U.S. export control policy in the face of political party changes was the central role of career civil servants in implementing these controls. High-level officials rarely touched export control issues much less the day-to-day work that governed the implementation of the control lists. This helped insulate the policies from the winds of partisan politics, making international cooperation on these sensitive issues possible over such an extended period of time.

Did the United States' allies cooperate with multilateral export controls, and if so, why?

From the beginning, European cooperation with the United States over export controls was uneven and reflected country-level priorities. Some countries like Great Britain were more willing to acquiesce to U.S. demands given historic cooperation between the two countries. Others, like the Swiss and West Germans, proved harder to convince. The Swiss fiercely guarded their neutrality and thought export controls too closely resembled a declaration of war. Similarly, the West Germans relied more heavily than some other European economies on trade with the Eastern bloc and faced the brunt of the economic consequences of export control policies.

Although the European view was never monolithic, the United States' Western European allies were more willing to back the U.S. export control agenda at the beginning of the Cold War than they were towards the latter half of the twentieth century. In the 1940s and early 1950s, the United States had more leverage. Europeans were heavily dependent on the United States for economic support and military assistance, and cooperation with the U.S. control framework was a price they were forced to pay to continue receiving this essential assistance. However, as Europe recovered economically and Eastern European markets proved natural destinations for growth and continued recovery, export control policy increasingly conflicted with economic goals and political reconciliation efforts.

This increased gap between U.S. and European policy goals was exacerbated by the different bureaucratic interests represented at COCOM meetings. The United States' delegation to COCOM and its supporting staff in Washington included representatives from the Departments of State, Commerce, and Defense. Western European countries, in contrast, almost exclusively sent representatives from their trade and commerce departments; European security or defense officials were practically absent from all COCOM discussions. This meant European delegations almost exclusively focused on economic arguments at COCOM meetings, even if their defense officials would have been more willing to cooperate with the national security controls advocated for by the U.S. defense community.

Nevertheless, despite the sharp difference and policy goals present at COCOM meetings, the United States and its European allies held COCOM together successfully throughout the Cold War and continued their effort into the post-war era, albeit in a modified form. The framework was designed in a way to accommodate policy differences among the members without sacrificing the viability of the entire framework. This was made possible through their commitment to shared values and common security interests. It ultimately demonstrates that even with their significant differences, Europe and the United States were able to work together to implement a multilateral export control regime.

Were Cold War multilateral export controls effective?

Evaluating the effectiveness of Cold War multilateral export controls necessitates a return to the distinction between foreign policy and national security controls. If the goal was to signal to an adversary approval or disapproval of a specific policy or position, then the controls can be broadly viewed as successful. They did, in fact, signal U.S. intentions, and this has continued be true in the years since the end of the Cold War. If the goal, however, was to constrain or slow Soviet military and technological development, effectiveness becomes a lot harder to evaluate.

Assessing the effectiveness of export controls' ability to constrain military and technological capacities necessitates evaluating and quantifying the counterfactual: what would Soviet military capabilities have been in the absence of multilateral export controls? Analyzing the unobservable is an inherently difficult task, and it is complicated by numerous data challenges. For example, there is a significant lack of data on the issue because many governments did not deem the issue worthy enough to evaluate and document, as was sometimes the case for the United

States' European allies. Additionally, when the data exists, it is often classified, making any analysis challenging if not impossible.

Nevertheless, despite these inherent challenges, efforts have been made to assess the impact of export controls. The previously discussed economic paper by Albrecht Glitz and Erik Meyersson showed the impact illicit information flows and technology acquisition had on East Germany economic development. While it does not explicitly tackle export controls, it carries a number of relevant conclusions that can be extrapolated to the Soviet export control context, as was discussed in chapter 4. Many practitioners and scholars also offer a number of other ways to assess Cold War export controls. For example, some point to the fact that Russia never developed an indigenous semiconductor industry. They argue the Soviets were actively trying to develop indigenous chip production capabilities, and U.S. and allies export controls made such an effort impossible. The effects of this are still being seen today. For example, the 2022 Russian invasion of Ukraine is marked by antiquated technology, showing that the Russians could not simply buy access to better technology.[17]

Others argue that U.S. export controls have broadly been successful as evidenced by the fact that no other country has weapons that match the capabilities of the United States. Without export controls, countries could simply purchase these capabilities, and the absence of these weapons in the broader market highlights the success of the controls.[18] Others also assess the effects by analyzing the indirect effects. Did target countries have to change their tactics to acquire technology?[19] The large and robust Soviet illegal technology acquisition program certainly supports this claim as they could no longer rely on legal acquisition efforts to acquire necessary

[17] Kevin Wolf, interview with author, February 4, 2023.; Scott Jones, interview with author, February 13, 2023.
[18] Eric Hirschhorn, interview with author, February 20, 2023.
[19] Cupitt, interview with author.

products. Thus, while it is hard to quantify the exact effects of export controls on targets' capabilities and economic development, anecdotal and qualitative evidence points to the fact that multilateral exports controls were in fact effective in achieving their goals.

IV. CONCLUSION

As was outlined in the opening chapter of this paper, export controls are a rarely analyzed and poorly understood aspect of Cold War history. Few historians focus on the economic dimensions of the Cold War much less the development and use of multilateral export controls to advance U.S. and Western European security interests. This thesis took a high-level, survey approach in assessing this issue in hopes of providing a broad structure in which future historical analyses can be hung. This broad approach also allows us to see the trade-offs policymakers faced when deciding whether to tighten or liberalize trade controls. Tightening trade controls allowed for more aggressive attacks on adversaries' capabilities, but it simultaneously increased the economic consequences of these policies for the implementing countries. Alternatively, liberalized controls were more beneficial and useful from an economic growth and business perspective but were much less effective in meaningfully constraining adversary capabilities.

Ultimately, understanding the use of multilateral export controls during the Cold War has important implications for understanding how strategic concepts were implemented during the Cold War and can help us understand the tradeoffs we face when trying to implement multilateral export controls today. Our geopolitical climate today is no less contentious, and the ongoing tension between economic globalization and national security concerns have only made these lessons and insights more relevant for policymakers today.

APPENDIX[1]

LIST I: Items for Complete Embargo

Metal Working Machinery

International List No.	*Title*
1	Vertical boring mills, 72” or over table diameter.
2	Broaching machines – all sizes and types
2a	Shaving machines, not including gear machinery
3	Spiral bevel gear generators and gear cutting machines (not including planer type); and gear hobbers providing for outside diameter of work 24” or over.
4a	Crankshaft and camshaft grinders. All sizes and types.
4b	Fully automatic internal cylindrical grinding machines: (A) automatic sizing; or (B) center-less
4c	Automatic sizing centerless external cylindrical grinding machines
4d	Automatic oscillating lap radial grinder for making ball bearing races.
5	Lathes, turret, 3” and over bar capacity, 24” and over chuck capacity
6	Surfacing and boring lathes, 10” centre height and over
7	Crankshaft and camshaft lathes. All sizes and types
7a	Machines for automatically balancing and correcting metal parts dynamically.
8	Relieving lathes: machines specially designed for the “backing off” of rotary cutters to provide clearance behind the cutting edge
9	Presses, mechanical, with an effective operating pressure of over 1000 tons. (See also Item 21)
10	Presses, hydraulic with an effective operating pressure of over 1000 tons (See also Item 21)
11	Forging hammers having a falling weight exceeding 3.5 tons
12	Forging machines capable of operating on bar stock of a diameter exceeding 3.5” or of equivalent cross-section
13	Marine and aircraft propeller blade profiling machines (planing [*sic*], shaping, milling or grinding)
13a	Spar millers
15	Continuous strip mills and controls
16	Plate mills and controls (except mills for fine plate)
17	Seamless tube mill and controls
17a	Reversible type electric motors over 1000 h.p. and automatic controls for starting, stopping and reversing.
17b	Equipment or plants for continuous casting of metals into partially-processed mill product forms

[1] “List I,” n.d., COCOM Doc No 39, Records of the International Trade Administration, Bureau of Foreign Commerce Office of Export Control Policy Planning Division, Records of the Coordinating Committee (COCOM) Subcommittee on Export Control, 1949-1959, Transshipment Controls Questionnaire 1953 to Belgian Controls, Box 3 of 3, NACP.

18 Military type jigs, fixtures and plate metal working accessories (except machines)
19 Deep hole drills and deep hole drilling machines
19a Automatic multiple spindle drilling machines, consisting of a cluster of twelve spindles or more driven from one power unit
20 Automatic or semi-automatic cam-operated thread-cutting machines, single or multiple spindle
21 All machines and equipment specially designed for manufacturing armaments including:
- (a) Shell lathes
- (b) Cartridge case trimming and head finishing lathes
- (c) Special spinning lathes for bombs
- (d) Hydraulic presses for shell banding (tyre setters)
- (e) Special forging machines for bomb nose and tail
- (f) Shell tappers
- (g) Armour plate drilling machines (not including radial)
- (h) Special artillery centrifugal casting machines
- (i) Special boring machines for aircraft bomb nose and tail
- (j) Gun-jump screw lathes
- (k) Rifle working machines

22 Tyres, pneumatic, and inner tubes of a kind specially constructed to be bullet proof or to run when deflated
23 Asbestos (strategic grade). Amosite, standard commercial grade (Bi, B3 and 3/MD.2)
24 Mica (strategic grades). Block (good stained or better), film and muscovite splittings and phlogopite splittings which conform to the American society of Testing Materials Standards or to India-Calcutta standards
25 All foil (paper thickness) rolling equipment
26 High speed compressors for wind tunnels (8000 revolutions per minute and over; Mach. number 0.7 and over)
28 Blank
29 Turbo blowers having compression ratio of 2 or better
30 Artificial graphite
30a Quartz crystals and plates
30b Valvos and cocks with corrosive-resistance lining
30c Electrically controlled automatic valves
30d Searchlight control units

Steel Mill Products

International List No.	*Title*
31	Landing mats for aircraft
32	Gilding metal, clad steel for bullet envelopes
33	Gun forgings, rough and gun forgings, alloy rough
34	Ferro columbium
35	Ferro Zirconium

Chemicals

International List No.	*Title*
36	Calcium permanganate
36a	Potassium permanganate
37	Di-nitro-toluene solids and oils
38	Stabilisers for explosives
	(a) Ethyl and methyl centralites
	(b) Diphenylamine
	(c) N. N – diphenylurea (unsymmetrical diphenylurea)
	(d) Methyl – N, N – diphenylurea (methyl unsymmetrical diphenylurea)
	(e) Ethyl – N, N – diphenylurea (methyl unsymmetrical diphenylurea)
	(f) Ethyl phenyl urethane
	(g) Diphenyl urethane
	(h) Diortho tolyl urethane
39	Pentaerythritol and pentaerythritol-tetra-nitrates
40	Hexamethylene-tetramine
41	Hydrazine hydrate
42	Mercury fulminate, lead azide, lead styphnate and lead thiocyanate
43	Nitro-guanidino
44	Hydrogen-peroxide (over 50 per cent strength)
45	Glycols and their compounds
45a	Silicon organic compounds
45b	Aluminium chloride, anhydrous
45c	Barium nitrate, barium chromate
45d	Sodium metallic
45e	Teflon (fluoron)
45f	Magnesium silicate (steatite)
45g	Potassium tetroxide

Chemical Equipment

International List No.	*Title*
46	Podbielniak extractors
46a	Compressors delivering liquids or gases at 300 lbs per square inch or over
46b	Gauges for measuring pressures in excess of 100 atmospheres (gauge pressures of 1470 pounds per square inch or 103 kilograms per square centimeter)
46c	Ammonia oxidation
	(a) Complete installations
	(b) Catalizers suitable for ammonia oxidation
46d	Hydrogenation
	(a) Complete installations
	(b) Catalizers suitable for hydrogenation
46e	Equipment for chemical reactions at pressures over 200 psi.

- (a) Complete installations
- (b) Autoclaves and digesters specially designed therefor

46f Nitrators
46g Mathanol oxidation
- (a) Complete installlations
- (b) Catalizers suitable for methanol oxidation

46h Gas liquefying equipment and equipment for handling liquefied gas, designed for operation at pressures of 300 psi or over
46i Vacuum-insulated storage or transportation containers for liquids or liquefied gases, 25 litres capacity or more
46j Hydrogen producing equipment (water gas, electrolytic, gas cracking, gas extraction processes)
46k Complete installations for anti-biotics production and specialized components thereof
47 Copper rotating bands for shell and other copper munitions components
48 Brass rolled cartridge strip with 68 to 72% of copper
49 Brass and bronze fabrications for munitions, anvils, fabrications for bullet cup (gilding metal clad steel), cartridge belt link, primer cap, shell rotary band.
50 Cobalt ore, residue and metal cobalt bearing scrap (concentrates, arsenical crystals)
51 Columbium (niobium) metal, alloys, ore, concentrates and scrap
53 Zirconium metal, alloys and compounds
54 Bismuth metal
55 Strontium ores, concentrates, metal and compounds
56 Titanium metal

Transportation Equipment

International List No.	*Title*
57	Diesel engines (a) Marine engines of 1,500 h.p. and over, (except those with rotary speed of less than 200 r.p.m. which will be controlled quantitively as for Item 93) (b) All types of Diesel engines of following characteristics i. 200 to 300 h.p. with rotary speed of 1000 r.p.m. or over ii. 300 to 800 h.p. with rotary speed of 600 r.p.m. or over iii. Over 800 h.p. with rotary speed of 400 r.p.m. or over
59	Well cars over 10 tons
59a	Tank cars (rail) over 10 tons

Petroleum

International List No.	*Title*
60	Aviation motor fuels, 86 octane and above
61	Lubricating oils, aviation, high viscosity index
62	Lubricating oils, aviation, medium viscosity index

63 Lubricating greases, except graphite:
(a) Containing synthetic oil;
(b) Containing lithium soap;
(c) For very high or very low performance (temperature and/or pressure)
64 Reference fuels
65 Hydraulic oils containing synthetics
66 Heavy duty detergent motor oils
67 Extreme pressure gear oils lubricants
68 Special fuels and lubes for use at low temperature
68a Additives for motor oil
69 Tetra-ethyl lead fluid
70 Tetra-ethyl lead
71 Alkylates
72 Hydrocodiners
74 Hydropolymers
75 Isohexanes
76 Isoctanes
77 Isopentanes
78 Isopropyleter
79 Neohexanes
80 Triptane

Petroleum Equipment

International List No.	*Title*
81	Oil well drilling and exploration equipment (see also item 100A)
82	Solvent treatment equipment for lube oil-production
82a	Hot oil pumps for alkylation, thermal and catalytic cracking, isomerization and hydroforming equipment
83	Casing and oil pipe; seamless and welded

Electronics

International List No.	*Title*
84	Radio valve manufacturing machinery
85	Electronic computers, except business type calculating machines
86	Electronic microscopes
87	Infra-red absorption meters
88	Apparatus of a kind used to measure electric impedance at frequencies exceeding sixty megacycles per second and specialized parts thereof
88a	Radio field strength meters of a kind used at frequencies exceeding sixty megacycles per second; and specialized parts of such meters
88b	Radio spectrum analysers, being apparatus capable of indicating the single-frequency components of multi-frequency oscillations having frequencies exceeding one hundred kilocycles per second; and specialized parts of such analysers

88c Radio-frequency signal generators, being screened electric oscillators associated with attenuators of a kind used to provide signal having frequencies exceeding three hundred megacycles per second and magnitude less than on microwatt or ten millivolts peak value; and specialized parts of such generators.
88d Balances, electronic, capable of detecting differences in weight smaller than ten microgrammes; and specialized parts of such balances
88e Resistors temperature-sensitive, of a kind used in bolometers or in the measurement of electronic power below ten milliwatts, but not including electric lamps
89 Apparatus for detecting or locating objects under water (excluding specific civil items; e.g., apparatus for detecting shoals of fish)
89a Location apparatus of a kind used for detecting objects or for determining the relative direction, position or motion of objects by means of the constant velocity or rectilinear-propagation characteristics of electromagnetic waves having frequencies between 10^8 cycles per second (3 meters – 100 megacycles) and 4×10^{14} cps (0.75 microns); and specialized parts and accessories of such apparatus; and specialized equipment for testing or calibrating such apparatus
89b Radar and radio navigation equipment (other than direction-finders) operating at frequencies below one hundred megacycles per second
89c Pulse modulators capable of providing electric impulses of peak power exceeding ten kilowatts; and pulse-transformers and pulse-forming equipment being specialized parts of such modulators
89d Electromagnetic waveguides, resonant circuits and radiators of a kind used at frequencies exceeding six hundred megacycles per second; and articles or equipment incorporating, or designed to be connected to or to be incorporated in any such item
89e Communication equipment of a kind using infra-red radiation or ultrasonic waves; and specialized parts thereof
90 Apparatus of a kind used to jam or otherwise interfere with radio reception, and specialized parts of such apparatus
90a Communication equipment of a kind exclusively designed for use in aircraft; and specialized parts of such equipment
90b Radio receivers, panoramic, being receivers which search automatically a part of the radio-frequency spectrum and indicate visibly the signals received, and specialized parts of such receivers
90c Telecontrol-equipment suitable for controlling pilotless aircraft and guided weapons
91 Cathode-ray oscilloscopes with time basis shorter than two microseconds; and specialized parts of such apparatus
91a Photomultiplier tubs and specialized parts thereof
91b Valves, thermionic of a kind used with a potential difference exceeding nine thousand volts between electrodes, or of a kind used at frequency exceeding two hundred and fifty megacycles per second, or of a kind that can be passed

through a circular hole one-half inch in diameter; and specialized parts of such valves

91c	Crystal rectifiers of a kind used at frequencies exceeding three thousand megacycles per second; and specialized parts of such rectifiers
91f	Cables of very low attenuation and high uniformity as used for frequencies of the order of magnitude of 3000 mc/s and above
91g	Design data, manufacturing technique and specialized tools for making any controlled items
91h	Amplifiers, high gain, stable linear pulse designed to operate within the range of 50 cycles per second to 10 megacycles per second and of input resistance not less than 10 megohms.
91i	Electrometers, except student type.
	Items expressly exempt from control
	Broadcast and television receivers of the domestic type

Marine Equipment

International List No.	*Title*
92	Warships and hulls or parts of hulls for such ships
94	Multicore cables suitable for harbour defense purposes and minesweeping
95	Gyre-compasses, gyro repeaters
96	Magnetic and acoustic minesweeping equipment
97	Submarine batteries
	Chemicals
98	Carbamite
99	Polyethelene
99a	Styrene
	Precision Instruments
100	blank
100a	Seismometers and gravimeters
100b	Meteorological sounding balloons, 1100 gr. or larger

LIST II: Quantitative Control

International List No.	*Title*
461	High pressure processing equipment including valves and pressure vessels operating at over 500 psi.
46m	Acid concentrating equipment (a) Complete installations (b) Ferro-salicitate distillation columns
52	Antimony metals [c]oncentrates and compounds (excluding medicinals)
57c	Diesel engines of 1500 h.p. and over and less than 200 r.p.m.
57d	Diesel engines of over 65 h.p. and not exceeding 200 h.p.

91d	Crystal rectifiers, incorporating germanium or silicon, of a kind used at frequencies below three thousand megacycles per second
91e	Sub-miniature electronic-circuit components
91j	Electrostatic precipitators, capable of removing 90% or more (by blackness test) of all airborne particles down to sizes as small as 1/250,000 of an inch, and specialized parts therefor
93	Merchant ships and hulls or parts of hulls for such ships (excluding those covered by Item 58)
100c	Impulse registers or counters (over 20 counts per second)
100d	Total radiation type pyrometers

LIST III: For Further Consideration

Metal Working Machinery

Intnl. List No.	*Anglo-French List No.*	*Title*
III-1	14	All tools, including dies and slugs, incorporating industrial diamonds
III-2	27	Diamonds suitable for industrial use, including splints and boarts Remarks: (Document 40, 6 May, 1950) Items 14 and 27 considered together. Reserve: Belgium and Netherlands. Items to be examined by an ad hoc committee of experts as soon as Belgium and Netherlands will have examined their position.

Intnl. List No.	*U.S. Arbitrary List No.*	*Title*
III-3	1	External threat milling machine, 6-inch work and over
III-4	2	Universal thread milling machine (not including automatic 6-inch work diameter and over
III-5	14	Multislide machine for more than ¾" stock
III-6	15	Equipment for complete coal preparation plant
III-7	16	Coal planers and combined coal cutting and loading devices
III-8	20	All alloy steels containing one or more of the following: (a) 5% or more tungsten (b) 2% or more molybdenum (c) 4% or more cobalt (d) Any quantity of titanium, tantalum or columbium
III-9	33	Basic components for manufacture of rubber products; e.g., mixers, calendars and vulcanizing presses for tyres
III-10		Boring and combination boring and turning lathes
III-11		Liquid gum inhibitors
III-12		Rolling mills
III-13		Hydraulic fluids
III-14		Bearings
III-15		Carbon black and other rubber accelerators

III-16		Copper mill products
III-17		Molybdenum ores, concentrates and compounds
III-18		Tin
III-19	PI1	Analytical balances, 1/100th milligrams or under
III-20	PI2	Microbalances, 1/1000th milligram or under
III-21	PI3a	Portable DC vacuum tube voltmeters with full scale range of one millivolt or less, with or without AC adapters
III-22	PI3b	Portable AC vacuum tube voltmeters or laboratory type with full scale range of 0.01 millivolt or less
III-23	PI3c	Portable vacuum tube voltmeters of laboratory type with full scale range of one volt or less not elsewhere specified
III-24	PI4	x-ray diffraction units, all types
III-25	PI5	x-ray tubes, all types, suitable for x-ray diffraction analyses with effective focal spots four millimeters square or less. Remarks (Document 23, 25 March, 1950) U.S. and Norway reserve positions
III-26	PI6a	Portable Dc amplifiers of laboratory type
III-27	PI6c	Portable amplifiers of laboratory type not elsewhere specified
III-28	PI9	Metallurgical microscopes
III-29	PI10b	Optical pyrometers, disappearing filament type
III-30	PI11	Metallographs Remarks: (Document 23, 25 March, 1950. U.K. and France reserve position
III-31	PI12	Diffraction gratings, originals, plane or concave, with rulings of 30,000 lines or more
III-32	PI14	Leak detecting instruments meaning those instruments capable of detecting small leaks of gases under high vacuum or high pressure
III-33	PI15a	Grating spectrographs with, or designed for use with, diffraction gratings, originals, plane or concave, with rulings of 30,000 lines or more
III-34	PI15b	Fully automatic quartz and glass spectrographs capable of a spectrum length of 20 cm or more, between 8000 AU and 2000 AU
III-35	PI16	Densitometers, measuring directly by photomultiplier tube circuit Remarks: U.K. reserves position
III-36	E10	Frequency measuring test equipment, capable of use in measuring frequencies of 500 megacycles per second or above; and specialized parts thereof

Suggested Amendments to Items Already on List I

III-A37	E11	Amend item 9.ic so as to change the frequency limit from 3000 megacycles per second to 500 megacycles per second, or alternatively remove the frequency limit and the item amended to cover all silicon crystals

III-A38	E12	Amend item 91f to include all cables usable at frequencies over 500 megacycles per second or, alternatively all cables using polytetra-fluorethylenedielectric

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ABBREVIATIONS

FRUS - Foreign Relations of the United States

NACP - National Archives at College Park, MD

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