The development of American economic warfare in World War II, 1940-1941

by

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B.S., United States Military Academy, 2000
M.A., Georgetown University, 2010

AN ABSTRACT OF A DISSERTATION

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Abstract

This dissertation examines the development of American economic warfare during World War II, focusing on the critical years of 1940-1941. During this period, military and civilian leaders responsible for the development and direction of economic strategy conceived, built, and employed economic warfare capabilities as an integral part of American grand strategy.

Since 1959, no historian has comprehensively analyzed America's complete World War II economic warfare campaign, and no published historical work has thoroughly explained its origins. Existing scholarship is fragmented—chronologically silent for over 75 years, British-centric, and overshadowed by studies of strategic bombing and submarine campaigns—leaving the role of economic warfare in U.S. grand strategy unexplored. Utilizing largely untapped archival records from the US Foreign Economic Administration (RG 169), this dissertation provides the first US-focused analysis and reestablishes economic warfare within the history of the US and Allied grand strategy.

The evidence presented in this dissertation supports four key findings. First, although often overlooked by historians, economic warfare was a core component of US grand strategy by at least July 1940. Second, in July 1940, President Franklin D. Roosevelt established the Office of the Administrator of Export Control to conduct a steadily expanding economic warfare campaign that, by August 1941, had largely cut the Axis Powers off from sources of strategic raw materials in Latin America and significant parts of Asia. Third, while both derived from their respective experiences with the “blockade” in World War I, US economic warfare theory, doctrine, and organization developed independently of British economic warfare theory and practice. Finally, contrary to post-World War II assessments, both the American and combined American-British economic warfare campaigns were efficient and effective in reducing the number of suitable, feasible, or acceptable strategic options available to Germany and Japan. The economic warfare campaigns began to significantly impact Axis capabilities, resources, and morale starting in early 1941.

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Dedication

This work is dedicated to the Pretty Lady.

Chapter 1 - Introduction

I. Introduction

"As you gentlemen well know, modern war has largely demolished the theory that war can be confined to the armed forces of belligerents. It is a contest between nations as a whole and all of their resources. In many respects, it is an economic struggle—a contest for economic supremacy, in which materials and money may be much more important than manpower." As dean of the prestigious Georgetown University School of Foreign Service, Dr. Thomas H. Healy commanded considerable authority as he addressed the assembled military officers who comprised the student body of the Army Industrial College—the lesser-known sister school to the Army and Navy War Colleges which trained officers in munitions procurement, industrial mobilization, and economic warfare.

Healy continued, "A nation might be forced to yield because of vital dependence on certain raw materials which are completely under the control of one of the belligerents." After discussing methods of economic warfare, he concluded, "Now, a number of these things I have suggested as potential weapons in our hands may strike you as rather fantastic. But most of the things that I have mentioned have been used before in wars and primarily by the British and, to a certain extent, the United States."[1]

A week later, the German Army attacked the neutral Low Countries and followed with a surprise thrust into France that turned the Allied defenses, triggering the rapid and unexpected

[1]"Protection and Promotion of National Interest of a Neutral or Belligerent Through the Use of Sovereign Rights with Related Observations on the International Law of War and Neutrality and Industrial Mobilization Planning by Doctor Thomas H. Healy, Dean, School of Foreign Service, Georgetown University," May 3, 1940, Box 964A, Entry 158 Economic Warfare Studies of the Army Industrial College, Record Group 169 Records of the Foreign Economic Administration (RG169), National Archives at College Park, MD (NACP).

collapse of the powerful French Army and the ignominious withdrawal of a hastily assembled British Expeditionary Force back across the English Channel. The arrival of Nazi forces on the Atlantic coast provoked a state of emergency in the United States.

As part of the American response, President Roosevelt created a nascent economic warfare agency, the Office of the Administrator of Export Control. Congress had recently granted the president the authority to control the export of critical strategic raw materials. Roosevelt turned to the Army to administer the export control program, which he described as "a military function." He appointed Lieutenant Colonel Russell Maxwell, an ordnance expert serving in the logistics planning section of the Army General Staff and a graduate of the Army Industrial College, as its administrator.

Unknown to all but a small number of government and military leaders, Maxwell operated in accordance with secret pre-war military plans developed through the 1930s and completed in Spring 1940. These plans were derived from the American experience with economic warfare and the blockade of the Central Powers during World War I. Maxwell was summoned to the White House to meet with Roosevelt’s closest lieutenant, Harry Hopkins. Hopkins was joined by his friend and Jr., the former chairman of US Steel, whom Roosevelt, at Hopkins's request, had appointed to oversee the acquisition and distribution of raw materials. After the meeting, Maxwell proceeded immediately to a second meeting with the top Army officers responsible for the military’s economic war planning. When Maxwell asked about his instructions, they handed him a copy of a secret economic warfare plan.

In 1939, as a global axis of states threatened to drag the world into a second conflict, the armed forces of the United States had begun planning for the contingency of being drawn into war. There were two major branches to these plans. The first, the well-known operational

"Rainbow" plans, were prepared under the direction of the Joint Army and Navy Board by a joint war-planning staff assisted by the Army War College and the Navy War College. These plans described the possible campaigns that the Army and Navy were preparing to conduct should the United States enter the war.

Ironically, the other branch is much less known today. Despite many of its classified details remaining secret, it was, at the time, much better known than the Rainbow Plans and was the subject of widespread public debate. This component was the Industrial Mobilization Plan, which outlined the means of American military strategy, describing how America could mobilize its economy to fight a future war. This plan was prepared under the direction of the Army and Navy Munitions Board (ANMB), by the planning staff of the Office of the Assistant Secretary of War, assisted by the Army Industrial College. The first version of the plan was completed in 1931.The plan was updated in 1933, 1936, and 1939–1940.

Almost completely overlooked by historians concerned with World War II, the Industrial Mobilization Plan not only addressed the mobilization of America's industry but also included plans for degrading or "strangling" the enemy's war economy. It described how the United States could use its economic, diplomatic, military, and psychological power to degrade the war economy of a potential adversary. These plans were derived from the lessons in economic warfare learned from America's participation in the World War I blockade.

The 1936 version began: “War is no longer simply a battle between armed forces in the field—it is a struggle in which each side strives to bring to bear against the enemy the

coordinated power of every individual and every material resource at its command. The conflict extends from the soldier in the front line to the citizen in the remotest hamlet in the rear."[2]

The papers in Maxwell's hands were one of several classified annexes to the most recent iteration of the Industrial Mobilization Plan. Titled *The War Trade Annex (Revised),* it had been completed just two months earlier by the new Economic Warfare Section of the Army Industrial College. Its introduction read,

> The time has long since passed when the outcome of wars was determined by the relative military prowess of men in the field. Modern war consists of the pitting of nation against nation or of one combination of nations against another combination. Since every nation depends to a greater or lesser extent on its foreign trade for the supply of essential materials, some measure of control over this economic element is essential. Conversely, to the extent that such control can be thwarted and its trade disrupted, to that extent at least is the nation vulnerable.[3]

A year after Dr. Healy's address, Maxwell stood to give a lecture to another class of officers at the Army Industrial College. He reported: "Without going into great detail as to what has been accomplished, I am pleased to report that that agency has been able to develop a quite complete technique for accomplishing the economic strangulation of a country or group of countries or administering an economic transfusion to a country or group of countries."[4]

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[2] War Department, *Industrial Mobilization Plan, Revised 1936* (Washington, D.C.: U.S. Government Printing Office, 1936), vii.

[3] "War Trade Annex (Revised) to the Industrial Mobilization Plan (1939)" March 15, 1940, Box 964A, Folder War Trade Annex (Revised), Entry 158 Economic Warfare Studies of the Army Industrial College, RG169, NACP.

[4] "Export Control by Brigadier General R.L. Maxwell, USA, Administrator of Export Control," May 31, 1941, Box 964A, Folder Short Course No. 2, Entry 158 Economic Warfare Studies of the Army Industrial College, RG169, NACP.

II. Historiography

"Everyone in Washington 'wanted in' on Economic Warfare," recalled then-Assistant Secretary of State for Economic Affairs Dean Acheson about the time of his appointment in January 1941.[5] This enthusiasm, however, has not been reflected in the work of historians studying World War II. Few studies have examined economic warfare during the war, and none have addressed its full scope. No book on the subject has been published since 1959.

o One of the leading American military historians, Russell Weigley observed decades after World War II, "I suspect that one of the reasons why even the new socially broad military history has been slow to explore the economic relationships of military history is because economic history is so specialized a subject with such specialized problems. Probably economic history is even more isolated from the mainstream of the historical profession than military history, which is saying a great deal."[6]

The limited historiography examining economic warfare during World War II, particularly the American economic warfare effort, presents three significant points. First, the American economic warfare effort is largely overlooked in historical accounts that address American and Allied strategy during World War II. Second, the historical narrative of the American economic warfare efforts conducted in 1940–1941, derived from State Department accounts—particularly those produced after the war by Herbert Feis—misrepresents the scope, scale, and, most critically, the intentionality of economic warfare that was systematically

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[5] Dean Acheson, *Present at the Creation: My Years in the State Department* (NY: W.W. Norton & Company, Inc., 1969), 22.

[6] Russel F. Weigley, "The Sinews of War: Economic Mobilization in World War II: Introductory Remarks," in *The Home Front and the War in the Twentieth Century—USAFA Military History Symposium*, ed. Russell F. Weigley (United States Air Force Academy, 1984), 81–83.

directed against the Axis nations as a fundamental component of US grand strategy prior to the formal entry into the conflict following the Japanese attack on Pearl Harbor in December 1941. Finally, the critically deficient analysis of economic warfare in World War I has left a legacy of distortion, weakening the analysis of the economic blockade during the First World War and distorting the analysis of economic warfare in the Second World War.

Several factors likely contribute to this gap in the histories and analyses of World War II. Much of the American economic warfare effort was conducted in secret. No official history of the economic warfare organization was produced after the war. Many of the archival records of these campaigns remained classified until the 1970s.[7] These records are poorly documented and rarely consulted. There may also be confusion regarding the identities of these economic warfare agencies, which were reorganized several times during the war, often being better known for other activities, such as administering the Lend-Lease program, rather than for their economic warfare roles. At the war's conclusion, these organizations were disbanded, and the functions were distributed among various peacetime executive departments and agencies.

American official histories of the war barely mention the economic warfare campaigns. The omission of U.S. economic warfare agencies from the Army's 78-volume official history series is puzzling. The Administrator of Export Control was an Army officer, the organization's divisions were initially led by Army officers, and Army officers constituted a significant portion of its core staff. [8] Senior Army officers in the Office of the Assistant Secretary of War helped draft the legislation creating the AEC, based on the Army's interwar plans to conduct economic

[7] RG 169 Records of the Foreign Economic Administration, National Archives College Park, MD.

warfare.[9] In his order creating the AEC, President Roosevelt specified that export control was a "military function." [10] Before the war, the Army was the only organization systematically studying and preparing for economic warfare– it did so as part of the curriculum at the Army's Industrial College, a senior-level educational institution equivalent to the Army and Navy War Colleges. The AEC (and its successor agencies) worked closely with the Office of the Assistant Secretary of War, the Army-Navy Mobilization Board, and the General Staff. They even prepared, in consultation with the Army, Army Air Corps, and Navy war planners, a comprehensive draft economic warfare plan which influenced American military strategy for fighting Japan in late 1940 and early 1941. Nevertheless, the entire series contains only a single paragraph on the Administration of Export Control (AEC).[11]

In the historiography of the Second World War, the strategic bombing campaigns against Germany and Japan, along with the American submarine campaign in the Pacific, have obscured the role and impact of the larger economic warfare campaign. The AEC and its successors provided substantial assistance to the U.S. Army Air Forces in developing targets and targeting

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[9] The IMP was nominally produced by the joint Army and Navy Munitions Board, but the actual study and preparation of the plans were primarily conducted by the Army's OASW and AIC, with some participation from Navy officers.

[10] "Military Order," July 2, 1940, Box 6, Folder A, Entry 146 Office of Administrator, Records Analysis Division, Historical Monographs Prepared Outside Division, RG169, NACP.

[11] R. Elberton Smith, *The Army and Economic Mobilization,* United States Army in World War II: The War Department, ed. Kent Roberts Greenfield (Washington, D.C.: Office of the Chief of Military History, Department of the Army, 1959), 599-600 11n, 14n. Two additional footnotes acknowledge that "The Office of Export Control, under an administrator, was the first of the economic warfare agencies of the United States and was succeeded in turn by the Economic Defense Board, the Board of Economic Warfare, and the Foreign Economic Administration," and that "The Office of Export Control and its successor agencies were the counterpart of the War Trade Administration proposed in the Industrial Mobilization Plan for controlling foreign trade in times of emergency and war."

concepts, as well as in the design of the American strategic bombing campaigns in both the European and Pacific theaters. These organizations served as think tanks that supported the intellectual development of American strategic bombing doctrine.

The official multivolume history of the US Army Air Forces in World War II minimizes or completely overlooks the contributions of the economic warfare establishment. In comparison, the British four-volume official history *Strategic Air Offensive Against Germany* describes the representatives of the US economic warfare agencies as core contributors to the development of the American strategic bombing campaign.[12] The six volumes of the equivalent American official history mention the same US economic warfare agency only three times in passing references. The British history of strategic bombing references the American agencies four times more often than the American histories themselves.

In his 15-volume *History of the United States Naval Operations*, the esteemed naval historian Samuel Eliot Morison does not address the naval blockade of the European Axis. The only references to it are descriptions of three encounters with German blockade runners and one footnote containing statistics on blockade running between Germany and Japan.

Differentiating "economic warfare" from broader foreign policy or direct military action complicates efforts to gauge its actual impact. Many references to American economic warfare appear in the wartime volumes of the State Department's *Foreign Relations of the United States* series; however, editorial choices and departmental biases often obscure details of the campaigns. Furthermore, analyses of the early American economic warfare campaign in 1940

[12] The US economic warfare agency that the British official history is primarily concerned with was the Enemy Objectives Unit of the Economic Warfare Division based at the American embassy in London. The Economic Warfare Division was the London branch of the Washington, D.C.-based Board of Economic Warfare.

and 1941 in relatively recent works focusing on America's "road to war," created by historians specializing in diplomatic history and relying primarily on State Department records, have been compromised by the misleading post-war histories of Herbert Feis. These include Jonathan G. *Utley's Going to War with Japan, 1937–1941*, and *Japan Prepares for Total War* by Michael Barnhart. Feis served as the Adviser on Economic Affairs during the war and produced *The Road to Pearl Harbor*, which has become the basis for much subsequent research on U.S. foreign relations during the immediate prewar period. His account of the interactions between Maxwell and the State Department, as this dissertation will show in a later chapter, was self-aggrandizing and misleading.

Only two books on the American economic warfare campaigns were written after the war: *The Hidden Weapon: The Story of Economic Warfare* by former chiefs of the Blockade Division David Gordon and Royden Dangerfield, in 1947, and *Economic Warfare*, a general survey with two undocumented chapters by Yuan-li Wu of the Stanford Research Institute, in 1952.

In contrast to the US official histories, the 85-volume British official History of the Second World War offers the most complete study of the British and American economic warfare campaigns. However, the complete story is spread among at least 30 volumes, with many additional volumes addressing closely related economic topics. The authors in the series provide significant coverage of both the contributions and shortcomings of the Ministry of Economic Warfare (MEW). Two lengthy volumes of *The Economic Blockade* by W.N. Medlicott encompass approximately 1,400 pages detailing the Allied economic blockade against the Axis. Although the British histories are the best chronicle of both the British and American

economic warfare campaigns, their account of the American effort is incomplete and skewed by British perspectives.

No book has been published on wartime economic warfare since Medlicott's second volume in 1959. Prominent historians of World War II, such as Paul Kennedy and Richard Overy, have downplayed the effects of the blockade and other forms of economic warfare, focusing instead on the impact of strategic bombing campaigns and the American submarine campaign in the Pacific. This emphasis on bombers and submarines has obscured the significance of economic warfare. As a result, there is no satisfactory accounting or analysis of American economic warfare during World War II within the existing body of historical scholarship. By drawing on unused archival documents and underused histories, this dissertation aims to integrate American economic warfare into the broader strategic narrative, thereby demonstrating its significance to Allied success.

III. Defining Economic Warfare

While some precepts of economic warfare date back to antiquity, modern economic warfare was first waged by the British in World War I under the auspices of a blockade. The term "economic warfare" only entered the strategic lexicon shortly before World War II. It was first employed by the British Committee of Imperial Defense to describe strategic concepts they were developing in response to aggression from Italy, Japan, and Germany during the latter half of the 1930s. At that time, the World War I blockade was a subject of public controversy in Britain, prompting the Committee to adopt "economic warfare" as a more publicly acceptable alternative.[13]

[13] W. N. Medlicott, *The Economic Blockade,* Vol. 1, History of the Second World War: United Kingdom Civil Series, ed. Sir Keith Hancock (London: H.M. Stationery Office and Longmans, Green and Company, 1952), 1.

The Committee, which was responsible for developing British strategy, intended economic warfare to encompass measures beyond those more appropriately described as economic statecraft. A pre-war lecturer at the British Imperial Defense College emphasized that the "warfare" aspects made these methods distinct from peacetime tactics of economic coercion. "It must be distinguished from coercive measures appropriate for adoption in peace to settle international differences without recourse to war... since, unlike such measures, it has as its ultimate sanction the use of belligerent rights."[14]

According to Gordon and Dangerfield, the term “economic warfare” was “a relatively new phrase to most Americans.” During the war, it was “loosely used,” and after the war, its meaning remained “a little hazy.”[15] The scope of activities that constitute economic warfare remains unclear. A post-war textbook for American military officers stated, "The term 'economic warfare' has different meanings to different people... To the Navy man, it will probably imply shipping controls and blockades. To the Air Force man, it probably means strategic bombing of industrial targets. To the importer and exporter, it may suggest cutthroat competition in international trade; and to Civil Government officials, it may mean trade treaties, international financial actions, etc."[16]

Even today, there is no universally accepted meaning, but achieving consensus during the war was complicated by the different definitions employed by the American and British

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[14] Medlicott, 1:17.

[15] David L. Gordon and Royden Dangerfield, *The Hidden Weapon: The Story of Economic Warfare* (New York: Harper, 1947), 1.

Industrial College of the Armed Forces (ICAF), *Emergency Management of the National Economy*, vol. 15, *Economic Intelligence and Economic Warfare* (Washington, DC: Industrial College of the Armed Forces, 1954), 39.

[16] Ibid., 16.

economic warfare organizations. These differences stemmed from several factors: varying operational scopes and objectives derived from distinct experiences during the First World War, differences in organizational structure, and disparities in economic potential between the co-belligerents.

The US and Britain derived different approaches from experiences gained in the previous world war. In World War I, the US economic warfare agency, the War Trade Board, consolidated multiple functions including conservation of domestic raw materials, acquisition of resources, management of shipping space, and financial controls. The British government performed these same functions but distributed them among various organizations.

As a result, American economic warfare organizations adopted a much broader concept of economic warfare than their British counterparts. The British official historian of the World War II blockade, W.N. Medlicott, explained,

> In the widest sense, the term 'economic warfare' should presumably include all economic activities which directly or indirectly further the war effort of a belligerent; the term was used in very much this sense by the United States Government after Pearl Harbor. British official usage made, however, a broad distinction between, on the one hand, supply, armament, and trade functions which ensured the ability of Britain to wage war, and, on the other, those measures which were more or less directly aimed at weakening the enemy's economic power to go on fighting.[17]

When the first American liaison officer to Britain's Ministry of Economic Warfare arrived in London in April 1941, he immediately noticed the differing perspective. "[T]he British people... understand the meaning and the weapons of economic warfare—that of a glorified

[17] Medlicott, 1:2.

blockade." He stated, "The British have confined the work of the Ministry wholly to offensive action. Its field is thus distinguished from matters of internal economy—of production, distribution, and consumption—with which other ministries are concerned."[18] He further observed, “If there is one thing that stands out as a result of my conferences thus far, it is that the Ministry of Economic Warfare is more warfare than economics.”[19]

The concept of economic warfare in the United States was broader in scope and included "defensive" measures to expand American economic power, as well as "offensive" measures to degrade the enemy's war economy. In November 1940, officers at the Army Industrial College defined it: "Economic warfare is concerned with three major objectives, namely, internal preparation, defensive action, and lastly offensive action."[20]

The American concept combined building an arsenal of democracy while destroying the enemy's arsenal of evil. In May 1941, Maxwell laid out his administration's working definition: "Economic warfare is a branch of warfare which uses all economic measures that will aid the prosecution of the war or potential war, the aim of such measures being: The strengthening of the economic defense of the nation and its actual or potential allies, and the weakening of the enemy

[18] “The Organization and Work of the British Ministry of Economic Warfare,” July 17, 1941, Box 1, Folder Board of Economic Warfare, Entry 146 Office of Administrator, Records Analysis Division, Historical Monographs Prepared Outside Division, RG169, NACP.

[19] “Paraphrase of Code Radiogram Received at the War Department at 11:43, April 29, 1941,” April 29, 1941, Box 994, Exhibit G, Entry 171 “History of Export Control” Exhibits, RG169, NACP.

[20] “Committee Report on Problem No. 36 Subject: War Trade and Economic Warfare,” December 7, 1940, Box 964A, Entry 158 Economic Warfare Studies of the Army Industrial College, RG169, NACP.

or potential enemy by injuring or disrupting its national economy and impairing its ability to wage war."[21]

Offensive economic warfare operations intended to damage the enemy's war economy were conducted within a theoretical geographic framework formed by three areas: a nation's own domestic economy, the economy of neutral countries, and the area of the enemy's economy. During the war, American economic warfare agencies conducted four categories of operations:

1. Denying access to raw materials.
2. Punishing traders who shipped goods to the enemy through blacklisting.
3. Preventing the transport of goods through allied sea and air patrols.
4. Destroying goods at enemy ports or production centers through strategic air bombardment.[22]

These conceptual differences shaped—and sometimes complicated—U.S.–British cooperation on a combined economic warfare campaign. The more limited British approach potentially handicapped the effectiveness of the Ministry of Economic Warfare by making it more difficult to coordinate action and share resource between organizations responsible for foreign economic measures taken to support the British war economy and those taken to harm the enemy's. British grand strategy. Despite these differences, strategic leaders in each nation had confidence that economic warfare would be a critical complement to military operations and a means to leverage economic power to shape the war's outcome.

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[21] "Activities of the Administration of Export Control in the Field of Economic Warfare," May 1941, Box 2, Folder Economic Warfare Analysis, Entry 146 Office of Administrator, Records Analysis Division, Historical Monographs Prepared Outside Division, RG169, NACP.

[22] Industrial College of the Armed Forces, *Emergency Management of the National Economy*, vol. 5, *Allies, Neutrals & Enemies* (Washington, DC: Industrial College of the Armed Forces, 1950), 144.

IV. A Strategic Framework

Economic warfare was a crucial pillar of Allied grand strategy. An appropriate conceptual framework for describing strategy helps clarify the integral role of economic warfare role within Allied leaders theory for securing victory during World War II. Economic warfare formed an effective and efficient component of the grand strategies of both the United States and the United Kingdom and was integrated into Allied strategy from the earliest formal formulations of combined strategy. The Allied "theory of victory" depended on the success of the economic warfare campaigns.

To describe and assess the nature, role, and effectiveness of the American economic warfare campaign, it is essential to analyze it within the context of American wartime grand strategy. However, evaluating historical strategy poses challenges due to its complexity, compounded by the evolving definitions of strategy and grand strategy over time. As a US Army War College text on strategy states, “Surprisingly for such a significant term, there is no consensus on the definition of strategy even in the national security arena…. As a consequence, every writer must either develop his or her own definition or pick from the numerous extant alternatives.”[23]

Throughout history, strategic theorists have offered concepts and frameworks to analyze and explain the causal relationships in the development and execution of strategy. In 1943, Princeton historian Edward Meade Earle provided a contemporary definition of grand strategy in the preface of the classic text Makers of Modern Strategy: "The highest type of strategy—

[23] J. Boone Bartholomees Jr., “A Survey of the Theory of Strategy,” in *U.S. Army War College Guide to National Security Issues, Volume I: Theory of War and Strategy*, ed. J. Boone Bartholomees Jr. (Carlisle, PA: Strategic Studies Institute, 2012), 13.

sometimes called 'grand strategy'—is that which so integrates the policies and armaments of the nation that the resort to war is either rendered unnecessary or is undertaken with the maximum chance of victory. [24] Strategy scholar Richard K. Betts stated, "Strategy is the essential ingredient for making war either politically effective or morally tenable. It is the link between military means and political ends, the scheme for how to make one produce the other." [25] Eliot Cohen said, "Strategy is the art of choice that binds means with objectives." Due to resource limitations, strategy requires establishing "priorities, sequencing, and a theory of victory."[26]

One of the most influential theoretical models of military strategy is Arthur F. Lykke, Jr.'s ends—ways—means framework. Lykke, who was an Army officer and professor at the US Army War College, developed this strategic paradigm based on the experiences of senior American commanders in World War II. He compared strategy to a three-legged stool, where ends (objectives), ways (strategic concepts), and means (resources) serve as the supports. An imbalance among these components introduces risk and may topple the entire strategy. [27]

Ends (objectives) *explain "what" is to be accomplished. Ends are objectives that, if accomplished, create or contribute to the achievement of the desired end state at the level of the strategy being analyzed.*

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[24] Edward Mead Earle, ed., *Makers of Modern Strategy: Military Thought from Machiavelli to Hitler* (Princeton: Princeton University Press, 1943), viii.

[25] Richard K. Betts, "Is Strategy an Illusion?" *International Security* 25, no. 2 (Fall 2000): 5. Army War College Professor Tami Davis Biddle praised Brett's description as "among the most powerful and perceptive definitions of strategy ever written." Davis, p. 11.

[26] Eliot Cohen, "Obama's COIN [Counterinsurgency] Toss," *The Washington Post*, December 6, 2009, 1.

[27] Arthur F. Lykke, "Defining Military Strategy," *Military Review* 69, no. 5 (May 1989): 6. Lykke credited American World War II General Mark Clark, who described the processes of developing strategy that he had observed and participated in during the war, with first articulating this framework.

Ways (strategic concepts/courses of action) *explain "how" the ends are to be accomplished by the employment of resources.... [T]he concept for higher strategy often defines the objectives of the next lower level of strategy.*

Means (resources) *explain what specific resources are to be used in applying the concepts to accomplish the objectives and use no verb. Means can be tangible or intangible. Examples of tangible means include forces, people, equipment, money, and facilities. Intangible resources include things like "will," courage, or intellect.*

Risk occupies a central place in this paradigm, representing the shortfall between what the strategy intends to achieve and the available resources and concepts. [28]

Lykke's strategic triad aligns with the criteria of suitability, feasibility, and acceptability, which American military officers have employed since at least the 1920s to develop and evaluate strategy. These three tests of strategy can also be used as criteria for assessing the effects of economic warfare on an enemy's strategy. Suitability evaluates whether the proposed ways can achieve the desired ends. Feasibility assesses whether the available means can support those ways. Acceptability considers whether the cost of the means is justified by the value of the ends.[29] Once national leaders designate objectives, strategic organizations identify the obstacles that impede those goals. They then develop strategic concepts based on the development and

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[28] Ibid., 2-8. Lykke was a retired Colonel in the US Army and a professor of military strategy at the US Army War College. Lykke's model is the basis for instruction in strategy at the War College. Ironically, the *Military Review*, the War College's journal, initially rejected for publication Lykke's article when it was first submitted in 1981.

[29] U.S. Naval War College, *Sound Military Decision* (Newport, RI: U.S. Naval War College, 1925), 31. These tests were described in Sound Military Decision published as text by the Naval War College in 1925 and reprinted in 1942, so before and during World War 2 they were contemporary strategic concepts for senior US military leaders. See also, David Jabolonksy, "Why is Strategy Difficult?," 3, Bartholomees, "A Survey of the Theory of Strategy," 16-17. H. Richard Yarger "Toward a Theory of Strategy: Art Lykke and the US Army War College Strategy Model," 50, in *US Army War College Guide to National Security Issues*, vol. I: *Theory of War and Strategy*, 2012.

deployment of capabilities in a given time and place and allocate resources to overcome these barriers. Capabilities consist of personnel trained or educated in specialized skills and knowledge, combined with material resources employed according to established doctrines or methods of operation. By aligning these elements effectively, strategic organizations can solve strategic problems and achieve national objectives. [30]

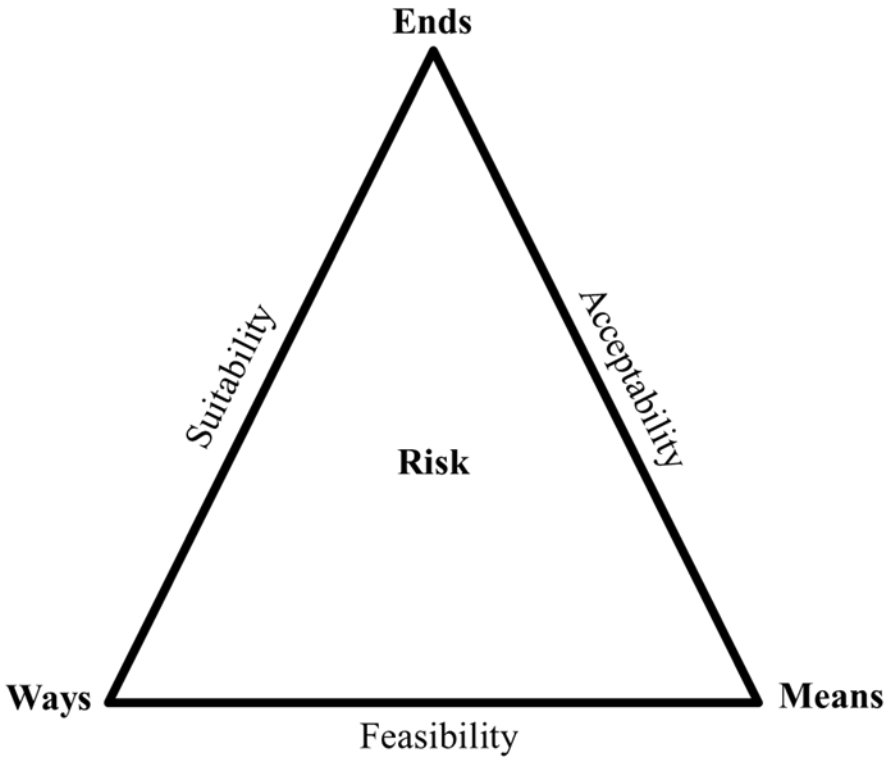

Figure 1.1 The Strategic Triad. Adapted from Arthur F. Lykke.

While Lykke formulated his theory within the context of professional military education, its utility is not limited to military strategy. As Earle observed during the war, "modern strategy" has "many nonmilitary phases."[31] Paul Kennedy, an esteemed historian of grand strategy,

[30] This definition of concepts is derived from the definition of a strategic concept in Chairman of the Joint Chiefs of Staff, Chairman of the Joint Chiefs of Staff Instruction 3010.02E: Guidance for Developing and Implementing Joint Concepts, August 17, 2016.

[31] Earle, *Makers of Modern Strategy* 1943, viii

highlighted that grand strategy is a "complex and multi-layered thing."[32] A primer for planning economic warfare prepared by the AEC's newly recruited planning staff in January 1941 provides a contemporary perspective on the various dimensions of grand strategy. The document explained:

> War is the use of force by states or by groups attempting to control a state in order to end a clash of interests between them. The outcome is determined by the establishment of a preponderance of power of one antagonist over the other in the course of armed conflict. Today, as in the past, the sources of power are (1) the means of production, (2) the means of propaganda, and (3) the means of violence.[33]

Their formulation is reflected in more recent theorists. Lykke describes grand strategy as "the art and science of developing and using the political, economic, and psychological powers of a nation, together with its armed forces, during peace and war, to secure national objectives."[34] Peter Layton emphasizes that "the essence of grand strategy is its integrative nature. In a

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[32] Paul Kennedy, ed., *Grand Strategies in War and Peace* (New Haven: Yale University Press, 1991), 4–5.

[33] "The International Use of Economic Pressure as an Instrument of National Policy: A Primer," January 15, 1941, Box 994, Exhibit G, Entry 171 "History of Export Control" Exhibits, RG169, NACP.

[34] Lykke, 3. Although there are alternative ways to categorize the different instruments of national power, a common approach is to categorize national power into four aspects: diplomatic, "informational" or "psychological," military, and economic, represented by the acronym DIME. Psychological was used in older formulations. See Biddle, p.32 and R. Craig Nation, "National Power," *US Army War College Guide to National Security Issues*, vol. I, *Theory of War and Strategy*, Ed. J. Boone Bartholomees, Jr, (Carlisle, PA Strategic Studies Institute, 2012), 147. J. Boone Bartholomees, Jr., "A Survey of the Theory of National Strategy,"19. Informational or psychological power is the most ambiguous of the categories, but it fundamentally represents the power to persuade people to accept or reject the costs associated with a course of action. In World War II, both terms, informational and psychological, were used. Examples include the Office of War Information, while the Army and OSS deployed psychological warfare teams. The main difference in common use was that information was used to describe efforts to persuade one's own or allied population, while psychological was used to describe efforts to persuade the enemy's population.

conceptual sense, grand strategy is a system: a set of interdependent elements where change in some elements... produces change across the system."[35]

The process of developing and implementing grand strategy is hierarchical. Each of the belligerent nations established organizations to develop and execute the various aspects of their grand strategy. Economic warfare was one of these aspects, and each major belligerent established organizations responsible for conducting economic warfare. National leaders assigned strategists in these subordinate organizations, specializing in various aspects of national power, to develop strategic concepts, which they then conducted as campaigns utilizing their respective capabilities, while the grand strategists coordinated and allocated resources to those campaigns. In this context, the American organizations created or tasked with planning and conducting economic warfare were an integral part of the American, British, and Allied strategic processes embedded in the strategic structures established by the respective chiefs of national grand strategy: President Roosevelt and the British Cabinet.

Applying Lykke's theory as a framework for historical analysis enhances understanding by clarifying the strategy creation process that led to the establishment of American economic warfare organizations. It elucidates the role of economic warfare within American and Allied strategy and offers a coherent theoretical foundation for analyzing and evaluating the economic warfare campaigns of World War II.

V. US Grand Strategy

Neither Roosevelt nor the various departments and agencies concerned with developing and executing American grand strategy ever published a comprehensive statement of American grand strategy during the war. The Allied leaders issued and updated statements of strategy

[35] Peter Layton, "The Idea of Grand Strategy," *The RUSI Journal* 157, no. 4 (August 15, 2021): 58.

articulating visions of ends, ways, and means at various strategic conferences, beginning with the Arcadia Conference between Roosevelt and Churchill in August 1941 and culminating in the Potsdam Conference which concluded four years later in August 1945, but none of these statements, either individually or in combination, fully captured America's grand strategy.

Nearly two decades after the war, Kent Roberts Greenfield, the editor and architect of the official 79-volume US Army in World War II series, preeminent military historian, and professor at Johns Hopkins University, identified six principles or objectives of American wartime Grand Strategy:

> 1. The solidarity of the Anglo-American coalition must be maintained for military reasons, and also because the interest of the United States required the survival of Great Britain and its postwar freedom of action as a great power.
>
> 2. Nazi Germany is the Number One enemy and must be defeated and crushed at the earliest possible date.
>
> 3. Soviet Russia must be given unstinted aid and kept fighting to the end.
>
> 4. Germany and Japan must be forced to unconditional surrender.
>
> 5. China must be kept in the war, with the object of having it enter the postwar world as great power.
>
> 6. The interest of the United States in the postwar world requires an international organization of "United Nations," and this, to establish itself, must first be directed by a firm union of the victorious allies: the United States, Great Britain and its Commonwealth, the USSR, and China. [36]

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[36] Kent Roberts Greenfield, *American Strategy in World War II: A Reconsideration* (Baltimore: Johns Hopkins University Press, 1963; repr., 1982), 78–79.

Although Greenfield's is among the best articulations of the Ends of American grand strategy, it is incomplete. Two other national objectives absorbed significant amounts of American resources and organizational effort. First, the territorial, economic, and ideological integrity of Latin America as a part of the Western Hemisphere must be preserved. [37] Second, the Roosevelt Administration must be maintained in office in order to assure the continuity of national and allied wartime strategy and the preservation of the "New Deal" reforms to the American political system.

Formally articulated at least a decade before the United States entered World War II, economic warfare was a part of the economic component of American strategy both before and during the war. In 1945, the final report of the Foreign Economic Administration laid out the objectives of US foreign economic strategy that originated before the war and continued through its duration:

> The foreign economic policy of the United States during the Global War comprehended six major fields of activity. These were:
>
> 1. Lend-lease of defense articles by the United States to those nations resisting the aggression of the Axis powers
>
> 2. Control of commercial exports to all parts of the world to protect American stocks of materials in short supply, prevent economic aid to the Axis, and to maintain healthy economies in friendly nations

[37] "Joint Board Estimate of United States Over-All Production Requirements," September 11, 1941, Box 1, Folder American-British Joint Chiefs of Staff Index, Safe Files, Franklin D. Roosevelt Presidential Library, Hyde Park, New York (FDRL).

3. Procurement abroad of strategic and critical raw materials and food, needed by the American war machine or by friendly belligerents

4. Economic warfare conducted against enemy nations to injure their war economy and industrial fighting power.

5. Relief, rehabilitation and reconstruction of areas liberated by United Nations armies from the Axis powers

6.The formation of plans for the reorganization of economic life in the defeated Axis countries. [38]

Even before the war, the Army and Navy Joint Board gave two significant statements addressing key aspects of likely US grand strategy, emphasizing a preeminent role for economic warfare. The Joint Board prepared the first of these statements in collaboration with their British counterparts during two months of secretive discussions held in Washington, DC "to determine the best method by which the armed forces of the United States and the British Commonwealth, with its present Allies, could defeat Germany and the Powers allied with her, should the United States be compelled to resort to war." [39] Reporting on the American-British Staff Conversations known as ABC-1, the military staffs laid out the basis they proposed for future combined strategy. "The broad strategic objective of the Associated Powers will be the defeat of Germany and her Allies." The United States would continue to supply material aid to Britain while

[38] "Final Report on Foreign Economic Administration, The Pre-Pearl Harbor Period Part A: General Political Situation," undated, Box 13 Folder FEA Administrative History Introduction Chapter, Entry 145 Office of Administrator, Records Analysis Division, Historical Monographs Prepared by Division, RG169, NACP.

[39] Mark Skinner Watson, *Chief of Staff: Prewar Plans and Preparations,* United States Army in World War II: The War Department, ed. Kent Roberts Greenfield (Washington, DC: Center of Military History, 1950; reprint, 1991), 375.

simultaneously expanding its own war economy. The military forces would secure the Western Hemisphere, the British Isles and the British Commonwealth, and the sea lines of communications connecting them. The ABC-1 report stated that the Allies would implement the following offensive measures:

1. To maintain an economic blockade of the Axis by sea, land, air, and by commodity control through diplomatic and financial means.
2. To conduct a sustained air offensive to destroy Axis military power.
3. To effect "early elimination" of Italy as an Axis partner.
4. To conduct raids and minor offensives.
5. To support neutrals and underground groups in resisting the Axis.
6. To build up the necessary forces for the eventual offensive against Germany.
7. To capture positions from which to launch that offensive. [40]

The second statement of strategy was produced by the Joint Board in September 1941 in response to a July directive from the President to the Secretaries of War and Navy to explore "at once the over-all production requirements required to defeat our potential enemies." As described by the Lykke framework, in order to determine requirements, the Joint Board had to first establish an estimate of the situation defining the strategic problems the military would face in defeating the Axis, and then develop strategic concepts that solved those problems. In their response to the President, the Joint Board stated:

> It is out of the question to expect the United States and its Associates to undertake in the near future a sustained and successful land offensive against the center of German power. It being obvious that the Associated Powers can not defeat Germany by defensive

[40] Watson, 376–377.

operations, effective strategic offensive methods other than an early land offensive in Europe must be employed. These methods may be found in a continuation of the economic blockade; the prosecution of land offensives in distant regions where German troops can exert only a fraction of their total strength; air and sea offensives against German military, economic and industrial resources; and the support of subversive activities in the conquered territories Strategic methods to be employed against Japan (assuming her in the war) should be a strong defense of Siberia and Malaysia; an economic offensive through blockade; a reduction of Japanese military power by raids; and Chinese offensives against the Japanese forces of occupation. [41]

Later in the document, they added:

The enforcement of economic blockade is, for the time being, likely to be the most effective offensive method for use against Germany and Japan. Naval and air forces must be maintained to close all avenues of sea approach to Germany. The continued existence of hostile land fronts in Russia and in the Middle East is necessary if this blockade is to be maintained. In addition, diplomatic, economic, and financial measures should be employed for increasing the effectiveness of the military blockade.[42]

Economic warfare figured prominently in prewar strategic planning. To achieve these ends, Roosevelt created a novel organization to perform strategic functions around the White House by grafting in existing agencies or creating new ones to perform the strategic functions later described by Lykke. The President closely controlled these organizations directly or through his closest advisers and trusted agents, although he gradually reduced his personal role

[41] "Joint Board Estimate of United States Over-All Production Requirements," 10.

[42] Ibid., 13.

as the direction of wartime strategy was more firmly established. Within these agencies, military and civilian operational planners developed concepts to be transformed into campaigns by commanders and agency chiefs while logistical planners managed the development and distribution of economic resources through campaigns to mobilize the national economy and integrate it with the global economy in ways that substantially redirected international economic patterns away from the Axis and towards the Allied economies.

To plan and conduct the economic component of his grand strategy, Roosevelt divided primary responsibility for domestic and foreign operations between two different agencies. These agencies both went through several naming and organizational changes, but eventually emerged as the War Production Board to manage domestic economic operations and the Foreign Economic Administration for foreign economic operations, which included the economic warfare campaigns against the Axis war economies.

VI. Thesis

American grand strategy for World War 2 integrated all aspects of national power: military campaigns across all theaters, mobilization of the economy, reorientation of global trade, psychological campaigns, and creation of a robust alliance. Economic warfare was an important component of this grand strategy. From at least 1933 onwards, economic warfare was an explicit part of American interwar war plans. From the perspective of economic warfare, the United States joined the war as an economic belligerent in July 1940. In 1941 and 1942, the strategic formulations emphasized the essential role that economic warfare was expected to play in achieving victory. The degradation of the Axis war economies remained a central tenet of the American and Allied theory of victory throughout the war.

In July 1940, President Roosevelt created the Office of the Administrator of Export Control (AEC) under Lieutenant Colonel Russell Maxwell as America's first economic warfare agency since World War I.[43] The agency began the first phase of a deliberate economic warfare campaign by restricting exports of important materials to Axis-controlled territories and suspected sympathizers.

Maxwell established an intelligence organization to serve as an economic warfare staff and an interagency committee system for coordinating efforts among government agencies involved with economic warfare. Formal coordination remained with Roosevelt, who authorized increasingly effective measures. These included preclusive purchasing of strategic raw materials, war trade agreements with Latin American Republics, rationing materials exported to European neutrals, controls on shipping, and freezing financial assets of Axis nations.

When, in July 1941, Roosevelt pivoted American grand strategy from hemispheric defense towards belligerency, he created an Economic Defense Board under Vice President Henry Wallace to better coordinate foreign economic strategy. Roosevelt assigned the AEC as the staff. Other than expanding the AEC staff, the Board simply maintained the measures and continued the planning already initiated by Maxwell.

Following Pearl Harbor, the Economic Defense Board became the Board of Economic Warfare (BEW). The Board established a branch within the American Embassy in London to conduct a combined economic warfare campaign with the British Ministry of Economic Warfare. The London branch conducted blockade and other measures in Europe, coordinated with the MEW among the European neutrals, and participated in negotiating wartime trade agreements. The Enemy and Economic Objectives Units of the BEW worked closely with the US Army Air

[43] To put Maxwell's rank into perspective, Dwight D. Eisenhower was also a Lieutenant Colonel in July 1940.

Force strategic bombing staff and played a significant role in developing strategic bombing doctrine against Germany. The Washington branch directed economic warfare measures in the western hemisphere, the Pacific, and the China-Burma-India theaters. The Washington staff also shaped US strategic bombing campaigns against Germany and Japan.

In mid-1943, Roosevelt restructured the American economic warfare organization by creating a new layer of leadership over the existing BEW in response to a public feud between Wallace and Commerce Secretary Jesse Jones. The President removed both from their roles by transferring the agencies into a new Foreign Economic Administration under Leo Crowley.

Although reorganized several times, the economic warfare staff originally established by Maxwell in the AEC in 1940-41 continued as the core in the successively named economic warfare agencies throughout the war.

The American and British approaches to economic warfare became distinctly different by 1941. In World War I, the United States established an economic warfare apparatus broader in scope than Britain's focused Ministry of Blockade. American efforts merged economic mobilization with efforts to cripple the enemy's resources. During the interwar period, American and British strategic planners worked independently to develop their economic warfare plans.

Formal cooperation between American and British economic warfare organizations began during the American-British Staff Conversations in Washington in early 1941. Before this meeting, British attempts to engage the United States had been met with little reciprocation. American economic warfare planners viewed the British Ministry of Economic Warfare's efforts favorably but drew primarily from their own experience in World War I. Once the United States entered World War II, the two nations' programs became more closely aligned, with the United States rapidly assuming a dominant role. The British official history overemphasizes the

importance of British ideas in shaping American action in economic warfare. In reality, most of these ideas were already being considered by American economic warfare staffs prior to discussions with the British. While American and British organizations shared a historical lineage, the distinct American legal structures, organizational priorities, and foundational doctrines resulted in a distinct American way of economic warfare.

Several flawed assumptions compromised evaluations of Allied economic warfare in World War II. A fundamental error was the widespread belief that the World War I blockade had been a primary factor in the Central Powers' defeat. This conviction became a flawed standard by which to judge later economic warfare efforts. After the Second World War, historians faced a shortage of economic information on how effectively these campaigns had impacted the German and Japanese war economies. Moreover, historians struggled to establish reliable criteria to measure the effectiveness of economic warfare, especially when the effects economic warfare measures such as export controls, preclusive purchasing, and blockade were often obscured by the simultaneous strategic bombing of Axis industries and American submarine operations in the Pacific. These overlapping strategies made it difficult to discern economic warfare's distinct role.

The American economic warfare campaigns were effective and efficient components of American grand strategy. While the results achieved generally fell short of pre-war expectations, the results that economic warfare did achieve supported and complemented the military and psychological campaigns against the Axis. When evaluated against the criteria of impact on acceptability, feasibility, and suitability, economic warfare was effective at degrading the grand strategies of the Axis Powers at a relatively small cost in blood and treasure. Economic warfare constrained Axis strategy by imposing costs on important socio-political groups and the Axis

populations, inhibiting the productive capacity of Axis war economies, and limiting the quantity and quality of key capabilities.

When evaluated using a framework based on their impact on the acceptability, feasibility, and suitability of Axis strategy, Allied economic warfare was both effective and efficient. The campaigns degraded the acceptability of Axis strategy by imposing costs on their populations and on core constituent social groups. The campaigns constrained the feasibility of Axis strategic choices by reducing the resources available and by compelling the reallocation of limited resources away from the development of important capabilities. Finally, the campaigns limited the suitability of strategic concepts available to the Axis war leaders. By the end of the war, none of the Axis powers had enough of the capabilities needed to win. By the end of 1943, Axis capabilities were generally qualitatively inferior due to the constraints economic warfare imposed on their weapons development and on personnel training programs. This resulted in attrition gradients that were not supportable within the resource constraints imposed by economic warfare. The economic warfare campaigns accomplished these results at a relatively small cost.

Allied economic warfare did not independently win the war, but the failure of those campaigns would have drastically increased the costs the Allies would have had to pay for victory, costs that might not have been acceptable to Allied populations. The economic warfare campaigns shaped the abilities to conduct the war in ways that ultimately proved decisive to the outcome. Like a game of chess, the allied economic warfare campaign selectively removed enemy pieces in a way that left the enemy with no strategic choices that could achieve their objectives.

Chapter 2 - The Origins of Economic Warfare in World War I

I. Introduction

Although the term "economic warfare" did not enter the strategic lexicon of English-speaking organizations responsible for developing strategy until the 1930s, its underlying concepts emerged in Britain during the decade before the First World War. Strategic planners at the Admiralty and the Committee of Imperial Defense (CID) believed that Britain's naval supremacy and financial dominance could be combined to control the economic connections between Europe and the rest of the world. They envisioned a new form of economic warfare that would deny adversaries access to key resources and markets—ultimately undermining an enemy's means and will to fight. [44]

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[44] Nicholas A. Lambert, *Planning Armageddon: British Economic Warfare and the First World War* (Cambridge, MA: Harvard University Press, 2012), 1–14. John W. Coogan, "The Short-War Illusion Resurrected: The Myth of Economic Warfare as the British Schlieffen Plan," *Journal of Strategic Studies* 38, no. 7 (2015): 1045-1064. Historian John Coogan, who had published his own study of the early blockade in 1981 titled *The End of Neutrality: The United States, Britain and Maritime Rights, 1899-1915*, strongly criticized Lambert for arguing beyond his evidence in a 2015 article "The Short-War Illusion Resurrected: The Myth of Economic Warfare as the British Schlieffen Plan" in the *Journal of Strategic Studies*. He wrote, "Current research on British economic warfare during the First World War is far from complete. Even its current state, however, justifies certain conclusions. Lambert fails to prove his case the British government believed in August 1914 that it could win the war quickly and bloodlessly by a ruthless strike against the German economy." P.1063
However, A.C. Bell, who authored the British official history of the WW1 blockade, and Avner Offer both reported in their work, which predated Lambert's by over 70 years in Bell's case, that the initial British plans for the blockade developed by the Admiralty and CID were much more aggressive and that these plans were, in fact quickly scaled back, as Lambert argues. At the beginning of World War II in September 1939, some British leaders believed that the blockade could trigger a rapid collapse of Germany. This suggests that a similar belief at the outset of World War I was at least plausible, if not widespread, as Coogan argues. In addition, Coogan's own assessment of the effectiveness of the World War I blockade is no longer supported by the consensus view of historians. While Coogan is fair in pointing out that Lambert does engage in some counterfactuals not supported by his documents, his argument is really more about a matter of degree. I, therefore, believe that Lambert's basic premise is supportable.

These plans differed fundamentally in both scope and method from earlier tactics of blockade or commerce warfare, which typically targeted enemy shipping and sought to choke off trade through geographically limited naval actions. In contrast, the new British conception encompassed the financial sector, regulation of exports, and manipulation of neutral trade to impose comprehensive economic pressure on enemy states. Scholars such as Nicholas Lambert argue that these strategists' work "constituted a revolution in the very definition of strategy," a shift that redefined the geographical boundaries of lawful belligerency, repudiated longstanding legal protections for private property in wartime, and expanded the notion of the "enemy" beyond armed forces to include the broader economy and even the civilian population. [45]

Avner Offer, a leading historian of World War I, described the British plans: "This was a project for total war. If Britain were to be a combatant, the naval blockade plan brooked no restraint. It proscribed any form of trading with the enemy. And by taking the civilian population as its target, it repudiated the distinction between combatants and noncombatants, which is a fundamental principle in the conventions of war." [46]

Lambert summarized the Admiralty's objective succinctly: "The objective of 'economic warfare' ... was to precipitate the rapid collapse of an enemy's financial systems and so disorganize its economy as to produce military paralysis. The perceived benefit ... was a quick victory at a relatively low cost." [47]

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[45] Lambert, 4.

[46] Avner Offer, "The Blockade of Germany and the Strategy of Starvation, 1914–1918: An Agency Perspective," in *Great War, Total War: Combat and Mobilization of the Western Front, 1914–1918*, ed. Roger Chickering and Stig Förster (Cambridge: Cambridge University Press, 2000), 172.

[47] Lambert, 1.

The details of the plan were approved by Britain's top cabinet, military, and parliamentary leaders. When war broke out in August 1914, the Admiralty immediately implemented the plan through a series of pre-drafted royal proclamations. Planners reasoned that severing the Central Powers from international commerce could rapidly cause economic and social chaos—"a countdown toward economic and social Armageddon." [48]

The plan entailed four main lines of action to be taken by Britain and its allies:

1. A Distant Naval Blockade: Allied warships would patrol maritime chokepoints, including the approaches to the North Sea, the English Channel, and Gibraltar, restricting the Central Powers' direct access to the global ocean and vital trade routes.
2. Trade Embargoes: Allied governments would halt exports to the Central Powers, either directly or through adjacent neutrals suspected of re-exporting British or Allied goods.
3. Interception of Contraband at Sea: With support from national prize courts, the Allied navies would intercept neutral shipping carrying strategic contraband, limiting the Central Powers' ability to import war-critical goods.
4. Financial Isolation: Britain would leverage its dominance over the London-based international financial system and cut off the Central Powers from insurance, credit, and clearing services vital for global trade.

The Admiralty swiftly acted on these ideas when war broke out in August 1914. A series of pre-drafted royal proclamations placed all British exports under a licensing system and criminalized trade with the enemy. Parliament then passed the Trading with the Enemy Act on September 9, 1914, blocking both direct and indirect commercial links with hostile powers. The British and French navies concentrated squadrons of cruisers to patrol near maritime

[48] Ibid., 4.

chokepoints. Neutral ships were required to submit to inspection at "control ports" or risk interception, detention, and seizure. [49]

II. The origin of the Traditional System, 1914-1916

Despite the confidence of the Admiralty and the CID, the British government hesitated in the face of uncertainty and risk. Only a few weeks into the war, the British cabinet overruled the plan developed by the Admiralty and the CID. This unprecedented attempt at blockading both belligerents and neutrals threatened to alienate important neutral countries and disrupt Britain's own trade, upon which national prosperity depended. Banks and shipping concerns vigorously lobbied against overreaching blockade measures, and the cabinet feared a collapse of vital commerce. Objections posed by neutral countries weakened Britain's moral and diplomatic position against the Central Powers.

As a result, the British War Cabinet retreated toward a more traditional framework based on the interception of merchant shipping, detention for inspection, and seizure of contraband goods. Blocking the Central Powers' direct maritime access to the world ocean was relatively straightforward, although the Allies conceded the Baltic and Black Sea enclaves. The bigger challenge was preventing the Central Powers from meeting their resource requirements through nominally neutral trade. Few cargos were seized after the German merchant marine rapidly vacated the seas beyond their relatively secure Baltic enclave. Only three neutral merchant vessels were seized during the first three months of the war. [50]

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[49] A. C. Bell, *History of the Blockade of Germany and of the Countries Associated with Her in the Great War: Austria-Hungary, Bulgaria and Turkey, 1914–1918* (London: HMSO, 1937), 180.

[50] Ibid., 44.

During the first 18 months of the war, the British blockade was primarily conducted by the Restriction of Enemy Supplies Committee, which the Admiralty informally established in August with representatives from the Admiralty, the CID, the Board of Trade, and the Foreign Office. In October, the Foreign Office created a Contraband Committee to determine which commodities should be added to the official contraband list. A licensing committee was established in the Board of Trade to review export licenses, but it lacked the intelligence resources necessary to prevent exports from reaching enemy firms or neutral firms willing to re-export goods to the Central Powers. [51]

W.N. Medlicott, the British historian of the World War II blockade, summarized this "traditional system" as based on four tasks: identifying materials that would damage the enemy by declaring them contraband; intercepting vessels transporting contraband; collecting information about cargo ownership and destination; and analyzing that information to justify condemnation in prize courts. [52]

This "traditional system" evolved from the 1909 London Declaration Concerning the Laws of Naval War, which attempted to standardize how belligerents could interfere with enemy and neutral trade during wartime.[11] Its key provisions included geographic limitations on legitimate blockades; division of goods into absolute contraband (military items), conditional contraband (dual-use items), and non-contraband categories; and rules regarding continuous voyage that applied only to absolute contraband. [53]

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[51] Ibid., 36-43

[52] Medlicott, 1:70.

[53] Ten nations participated in the conference and signed the declaration. These were: Great Britain, France, the United States, Austria-Hungary, Germany, Italy, Japan, Russia, Netherlands, and Spain. Noticeable absent were many of the nations that would be most impacted by the future blockade including the Ottoman Empire, the

The legal framework established by the London Declaration quickly proved inadequate for significantly degrading the Central Powers' war economies. Although Britain had called for the conference and signed the Declaration, the House of Lords declined to approve it, so it was never ratified. On August 20, the British Government issued an Order-in-Council formally adopting the Declaration with significant modifications. [54]

These modifications were particularly significant. The order expanded contraband lists, rejected the stipulation that ship's papers were the only evidence for determining contraband status, and extended the doctrine of continuous voyage to conditional contraband. A follow-up Order-in-Council shifted the burden of proof onto neutral merchants and expanded the concept of the enemy to include any individual or business within Central Powers territory. [55]

On November 2, the Admiralty declared the entire North Sea a military area in response to a spurious allegation of German mining operations, and required all ships entering to first report to a British control port for inspection. Ships failing to report were intercepted and detained. [56]

Between the beginning of the war and July 1917, the British government issued no fewer than 15 proclamations expanding the list of contraband articles until it included nearly every item of enemy trade. The London Declaration had expressly forbidden the designation of many of

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Northern Neutrals (except the Netherlands), and Greece. Declaration Concerning the Laws of Naval Warfare, 26 February 1909.

[54] Bell, 712.

[55] Ibid., 713.

[56] Ibid., 63-64. Paul G. Halpern, "The Blockade of World War I," in *Naval Blockades and Seapower: Strategies and Counter-Strategies, 1805–2005*, ed. Bruce A. Elleman and S. C. M. Paine (London: Routledge, 2006). Bell recorded, "Every neutral statesman and shipmaster and shipowner knew, from the beginning that the accusations in this document were quite untrue…."

these items as contraband. Many articles specified as not being susceptible to war use were, in fact, essential raw materials for military production. Raw cotton was crucial for gunpowder, silk for propellant bags for artillery, nitrates for explosives, rubber for vehicle tires, and metallic ores for munitions.

The British government repeatedly enlarged the contraband lists, loosened evidentiary standards, extended the geographical scope of the blockade, and expanded the administrative machinery to enforce these rules. As historians Lance Davis and Stanley Engerman concluded, "It is clear that, by the end of the war, the policies adopted by Britain, Germany, and the United States had made a shambles of that part of international law that dealt with naval blockades.... [T]he declaration was a dead letter at the outbreak of the war." [57]

III. Evolution from Blockade to Economic Warfare

As the prospects for victory faded further following the failed military campaigns that both sides had expected would quickly win the war, the British government issued a series of increasingly aggressive orders restricting neutral trade with the enemy. To manage the expanding campaign against commerce, the British replaced the licensing committee with a War Trade Department in February 1915. This department included its own war trade intelligence section and three geographical licensing sections: one for adjacent neutrals, one for the United States, and one for the rest of the world. [58]

Both sides escalated their economic warfare measures. In March 1915, Germany declared the seas near Britain a military area, where all merchant vessels risked sinking without warning

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[57] Lance E. Davis and Stanley L. Engerman, *Naval Blockades in Peace and War: An Economic History since 1750* (Cambridge: Cambridge University Press, 2006), 226.

[58] Bell, 198.

by submarines. The British government retaliated with an Order-in-Council, adding the origin of goods from enemy countries to the criteria for declaring a cargo contraband. All goods shipped to or from the enemy would be seized, effectively blocking enemy exports to all countries except adjacent neutrals and undermining the enemy's ability to earn foreign exchange to finance their war economies. [59]

Despite improved organization, enhanced intelligence collection and analysis, and stricter contraband rules, the flow of strategic commodities through adjacent neutrals to the Central Powers persisted. Captain Montagu Consett, the British Royal Navy attaché in the Scandinavian neutrals, reported after the war:

> The sufferings of the Scandinavian communities were not caused by the naval operations of Great Britain, nor by the belligerent operations of any country: they were the direct result of the deliberate actions of their own people, who sent their goods to the lucrative markets of Germany.
>
> The war brought to Scandinavia a period of unprecedented prosperity. During 1915 and 1916, she received supplies in excess of all previous quantities. There was a double irony in the situation: for although it was through our own trade only, [...], yet the scarcity thus produced in the neutral country was attributed by the suffering people to the harsh conditions of the British blockade. [60]

In June 1915, British and French blockade officials met in Paris to coordinate exports. The French criticized Britain's leniency and insisted on a new rationing policy to reduce imports from neighboring neutrals to "normal" pre-war levels. The British objected, but the French

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[59] Ibid., 714.

[60] Montagu Consett, *The Triumph of Unarmed Forces* (1914–1918) (London: Williams and Norgate, 1923), xii-xiii.

insisted on restricting all Allied exports. Ultimately, the French prevailed, but the British Board of Trade, concerned that prize courts would not accept statistical evidence, delayed implementing rationing until the fall. [61]

In March 1916, the British Government expanded the definition of enemy destination to include goods consigned to individuals forwarding contraband to the enemy. To enforce these rules, the Foreign Office, and later the Ministry of Blockade, established a blacklist of neutral merchants trading with the enemy. Any cargo assigned to a merchant on the list could be declared contraband.[62]

By 1916, the growing cost of the war was shifting the calculus of political acceptability. In a remarkable bureaucratic shift, the British Cabinet established a new Ministry of the Blockade. This move partly resolved the quarrels and infighting. The Ministry took charge of interdepartmental committees, consolidating them into the Contraband Committee, War Trade Statistical Department, War Trade Intelligence Department, Foreign Trade Department, and Restriction of Enemy Supplies Department. Elevating this apparatus to ministry status signaled a final rejection of the assumption of a quick war and a willingness to accept the costs of economic warfare. The shift also indicated a change in the nature of the economic warfare campaign from targeting the enemy war economy to attacking the will of the enemy by imposing costs on the civilian population.[63]

Well into 1916, however, the British and Allied economic warfare campaign failed to significantly degrade either the means or the will of the Central Powers. This failure was partly

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[61] Ibid., 270-275. Lambert, 428-429.

[62] Bell, 716.

[63] Ibid., 452. Lambert, 6. Alan Kramer, "Blockade and Economic Warfare," in *The Cambridge History of the First World War, Vol. 2, The State*, ed. Jay Winter (Cambridge: Cambridge University Press, 2014), 460-464.

due to inadequate capabilities in economic intelligence, exacerbated by conflicting priorities among government departments. Most importantly, the Allies lacked the leverage to coerce adjacent neutrals into abandoning their lucrative trade with the blockaded Central Powers.

Neutral countries posed significant challenges to the Allied Powers' ability to enforce an effective blockade. The economies of the Northern Neutrals—Holland, Denmark, Norway, and Sweden—were highly dependent on Germany, and international law limited how belligerents could control trade between neutrals. Until the American entry into the war in 1917, the Allies could not prevent companies in the adjacent neutrals from transshipping commodities purchased from the United States and Latin America to Germany or exporting domestically produced goods to Germany. The Allies attempted to limit supplies to the Northern Neutrals through rationing and "letters of assurance." They granted each neutral a quota based on domestic needs and Allied trade, requiring exporters to sign "letters of assurance" guaranteeing the goods were for domestic consumption, not re-export. [64]

Despite these measures, the blockade failed to prevent shipments from overseas neutrals from reaching Germany through adjacent neutrals. Although direct American exports to the Central Powers fell in 1915, exports to the Northern Neutrals more than doubled. In its post-war report, the American War Trade Board concluded that it was "fair to assume, in view of the magnitude of these increases, that many of these commodities eventually found their way into Germany." [65]

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[64] War Trade Board, *Report of the War Trade Board* (Washington, DC: Government Printing Office, 1919), 10-11.

[65] Ibid., 11, 31.

IV. The United States closes the Blockade

When it entered World War I in April 1917, the United States was no more prepared to engage in economic warfare than its Army was to fight in the trenches of the Western Front. The executive branch had no legal mechanism or organization to control American trade with the Central Powers other than the general rights of a belligerent to declare contraband and seize merchant vessels. The Departments of State, Commerce, Treasury, and Justice began collaborating on legislation to give the President and executive branch agencies authority to control wartime trade. As an interim measure, Secretary of State Robert Lansing asked Congress to include in the Espionage Act of June 15, 1917, a section authorizing the President to control exports. [66]

The following week, Wilson created an Exports Control Council composed of the Secretaries of State, Agriculture, and Commerce as well as the Food Administrator. On July 9, the Council issued the first list of commodities subject to export controls, including fuel and fuel oils, foodstuffs, iron and steel, fertilizers, munitions, and explosives. The Bureau of Foreign and Domestic Commerce issued the actual licenses. [67]

The Council also attempted to limit blockade leakage through the Northern Neutrals. On July 24, it informed representatives that they must guarantee American commodities would not reach Germany. If a neutral exported any foodstuffs to the Central Powers, the United States would reduce its supplies. A month later, the Council placed almost all exports to these neutrals

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[66] Ibid., 2. Edward S. Miller, *Bankrupting the Enemy: The U.S. Financial Siege of Japan Before Pearl Harbor* (Annapolis, MD: Naval Institute Press, 2007), 4.

[67] War Trade Board, 2.

and the Central Powers under control, issuing two lists of controlled commodities and adding more items to the July 9 list. [68]

Not until October 6—six months after U.S. entry—did Congress pass legislation granting the President full authority to control war trade. The Trading with the Enemy Act empowered the executive branch to oversee imports, enemy trade, and financial transactions. Wilson transferred the functions of the Exports Administrative Board to the War Trade Board, and the Exports Council became the War Trade Council, expanded by adding the Treasury Secretary. Wilson declined to grant the Board complete control over all foreign trade until February 1918, when he authorized licensing for all exports and imports, regardless of their connection to war trade. [69]

Figure 2.1 Organization of the War Trade Board 1918

Economic warfare was only part of the rationale for expanded controls. In another post-war report, the War Trade Board explained:

> The reason for the establishment of rigid control was, primarily, [...] to utilize all available shipping for the transportation of the armies to France [...] and secondarily, to

[68] Ibid., 2-3, 17.

[69] Ibid., 5, 7-8.

> conserve the products of this country for the use of this country and the nations associated with us in the war; and thirdly, to dispose of our surplus products in such a way as (1) to aid the countries to the south which had theretofore depended upon the United States; (2) that Germany and her allies would derive no benefit therefrom; and (3) to secure for ourselves, in return, shipping and supplies urgently needed. [70]

Accordingly, the War Trade Board had four functions: commercial isolation of the enemy, financial isolation of the enemy, obtaining essential supplies, and conservation of ocean shipping tonnage.[71] The first two involved economic warfare, although the WTB avoided the term, referring to its actions as part of "blockade policy." It described itself as a crucial part of "the machinery of the blockade," alongside an inter-allied organization in London coordinating U.S. and Allied policies. [72] By joining the Allied cause, the U.S. (and, to a lesser extent, Italy) finally made the blockade effective. However, the extent to which the blockade contributed to the Central Powers' defeat remains unclear.

V. The History of the History of the Blockade

More than a century after the First Great War, historians continue to debate the consequences of the Associated Powers' economic blockade. Early impressions, drawn from limited and often inaccurate data, created an unrealistic image of a decisive campaign against German national will. This perception shaped expectations for a repeat performance and colored post-war assessments in unfairly dismal tones. The narrative of a decisive First World War "blockade" was not critically examined until the 1980s. As Avner Offer noted, "While there is

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[70]"War Trade Annex (Revised) to the Industrial Mobilization Plan (1939)" March 15, 1940, Box 964A, Folder War Trade Annex (Revised), Entry 158 Economic Warfare Studies of the Army Industrial College, RG169, NACP.

[71] Ibid., Appendix I, 4-5. War Trade Board, 13.

[72] War Trade Board, 18.

no doubt that the blockade had a serious effect, most historians have not assessed its impact: they have merely asserted it." [73]

With a few exceptions reaching small professional audiences in the first decade of the Cold War, assessments of World War II have relied on a false comparison between the better-documented Allied economic warfare campaign in the Second World War and a mythologized version from the First. Early historiography was influenced by government secrecy, nationalistic agendas, and incomplete information. Mythmaking around the blockade's decisiveness shaped subsequent military doctrine, particularly in Britain. In the immediate aftermath of World War I, former British Prime Minister Herbert Asquith attributed victory to the blockade, stating, "With all deference to our soldiers, this war had been won with sea power." [74]

In contrast, early American assessments were more cautious. In 1919, the War Trade Board reported to President Wilson that while they were confident the blockade had reduced supplies obtained by the Central Powers, they were unsure how much it had diminished the enemy's stocks of essential materials. The Board reduced American exports to the Northern Neutrals, apparently causing a decline in exports from these neutrals to Germany. Yet it conceded that "statistical materials necessary to measure the effect...are not available in great detail." [75]

Making a definitive assessment of the Board's efforts to cut the Central Powers off from financial resources was even more challenging. The Board concluded, "In the nature of the case,

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[73] Kramer, 468-469.

[74] Colin S. Gray, *The Leverage of Sea Power: The Strategic Advantage of Navies in War* (New York: Free Press, 1992), 211.

[75] War Trade Board, 41, 31, 38.

enemy trade is a matter so intangible, so little subject to statistical measurement, it is exceedingly difficult to express the results of control exercised in other form than a judgment." [76]

In 1924, Maurice Parmelee, an American professor of sociology who had served on the U.S. War Trade Board, published *Blockade and Sea Power in the Blockade*. He argued that the blockade "cannot be regarded as an entirely successful blockade... it did not bring Germany quickly to its knees," although it "did much injury to the Central Powers." [77]

These early American assessments likely did not influence British thinking. The first British attempt at an official history of the blockade began with Oxford historian Henry Carless Davies, who published an incomplete draft in 1920. Only 250 copies were printed, and those were classified. [78] During the two decades following the war, the British government actively censored scholarship on the blockade. Royal Navy Rear-Admiral M.W.W.P. Consett's *The Triumph of Unarmed Forces (1914-1918)* revealed that British trade with neutral neighbors had nearly led to defeat. Consett criticized the Foreign Ministry and the Ministry of Blockade for failing to reduce or halt the transit of goods so that "The war...was prolonged far beyond the limits of necessity."[79]

In the years following the armistice, official British and German narratives converged in emphasizing the blockade's decisive effects—though for different reasons. Leaders in both

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[76] Ibid., 56.

[77] Maurice Parmelee, *The Blockade and Sea Power: The Blockade, 1914–1919* (New York: Thomas Y. Crowell, 1924), iv, 235–36. He was used as an example of a moderate voice in Davis and Engerman.

[78] Lambert, 8-10. Lambert suggests that Carless Davis may have abandoned the project due to the growing hostility of high-ranking government and military officers who feared for their reputations. He cites the example of pushback against Julian Corbett's official naval history of the war.

[79] Lambert, 11, Consett, vii, xii-xiii.

countries had incentives to promote a "hunger blockade" folklore.[80] British leaders used the story to justify interwar strategic concepts that limited the Army's role in future conflicts.[81] British historian B.H. Liddell Hart wrote in 1929, "Among the causes of Germany's surrender, the blockade is seen to be the most fundamental."[82] He later referred to it as "the decisive agency in the struggle."[83] German leaders also fostered the myth of starvation. W.N. Medlicott observed, "This tendency was strengthened by the German inclination to exaggerate the success of the 1914-18 blockade... Public interest tended to oversimplify the problem by thinking of blockade primarily in terms of food."[84]

As the Versailles Treaty's provisions began to fail, the Foreign Office sponsored its own official history of the blockade to educate naval officers and civil servants. In 1935, Arthur C. Bell completed *A History of the Blockade of Germany and the Countries Associated with Her in the Great War*, which was circulated within the government but not published for public review until 1961. Much of the blockade's narrative was shaped by anecdotal evidence and political motives. Bell concluded that while "the fighting efficiency of the German army was never reduced," the blockade "sapped the national resistance." He described its effect as a disease infecting the German populace, and he was completely uncritical of German sources that later researchers would challenge.[85]

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[80] Gordon Wright, *The Ordeal of Total War, 1939–1945* (New York: Harper Torchbooks, 1968), 53.

[81] Gray, 216-217.

[82] B. H. Liddell Hart, *Strategy* (New York: Praeger, 1967), 218. Originally published as *The Decisive Wars of History: A Study in Strategy* (London: G. Bell and Sons, 1929).

[83] B.H. Liddell Hart, *History of the First World War* (London: Pan, 1972), 460. Originally published as *The Real War, 1914–1918* (London: Faber and Faber, 1930).

[84] Medlicott, 1:3. Gordon, 53.

[85] Bell, iii, 671, 674.

He also relied on “an exhaustive study of the baser, trashy literature of Germany” to support his conclusions. In one sample of his methods, he wrote that “All Quiet on the Western Front is the work of an unmanly sniveler.” Bell, referring specifically to the author’s depictions of hunger among the German populace, “after endeavoring (and I hope failing) to excite feelings of pity and horror by all the artifices of a cheapjack invention, did write a few pages which rose to the dignity of literature.”[86]

The blockade myth significantly influenced British and Allied strategy in World War II. The official and popular memory of the World War I blockade was that it had defeated Kaiser Wilhelm’s Germany. When the first American liaison officer to the British Ministry of Economic Warfare arrived in London in April 1941, he noted that many Britons believed “this war will be won as the last war was won, largely as a result of economic warfare.” [87]

VI. Critical reappraisals and centennial scholarship

Despite the opportunity provided by the economic warfare campaigns of World War II to reassess economic warfare in the earlier conflict, the dominant view in most popular and academic histories well into the 1980s remained that the blockade had been decisive in World War I. In 1957, Michael Lewis, in his history of the British Navy, called the blockade "beyond question the primary cause of [the German] collapse." Bell's official history, finally published in 1961, reaffirmed that position. [88]

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[86] Ibid., 686-687.

[87] “The Organization and Work of the British Ministry of Economic Warfare,” July 17, 1941, Box 1, Folder Board of Economic Warfare, Entry 146 Office of Administrator, Records Analysis Division, Historical Monographs Prepared Outside Division, RG169, NACP.

[88] Michael Lewis, *The History of the British Navy* (Harmondsworth: Penguin, 1957), 253.

However, cracks in this consensus slowly emerged as historians became skeptical of their predecessors' conclusions about the blockade's impact. In the late 1980s, Avner Offer challenged the blockade narrative, stating, "The German economy held up much better than British blockade planners supposed... Blockade alone was not sufficient to defeat her." [89] The influential military historian Williamson Murray argued that "sea power alone could not have had a decisive impact on the First World War." [90]

In the century following the end of the First World War, historians have yet to achieve a durable consensus on the effects of the blockade and its consequences. [91] As late as 2004, Eric Osborne concluded that Britain's "greatest contribution" to victory was the blockade—"the greatest factor behind the Allied victory in World War I." [92] However, his monograph appears to be the last gasp of an expiring narrative.

After "decades in the academic wilderness," the centennial commemoration of World War I triggered a burst of new scholarship in the 2000s. [93] Lance Davis and Stanley Engerman wrote in 2006 that Britain's "distant blockade was an effective weapon in the Allied arsenal, but, unlike the American blockade of the Japanese mainland in World War II or the atomic bomb, it was not the weapon that by itself could have brought the war to an end." [94] Ironically, a century

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[89] Avner Offer, *The First World War: An Agrarian Interpretation* (Oxford: Clarendon Press, 1989), 76.

[90] Williamson Murray, "Naval Power," in *The Making of Strategy: Rulers, States, and War*, ed. Williamson Murray, MacGregor Knox, and Alvin Bernstein (Cambridge: Cambridge University Press, 1994), 207.

[91] Halpern, 103.

[92] Eric Osborne, *Britain's Economic Blockade of Germany, 1914–1919* (London: Frank Cass, 2004), 1-4.

[93] Davis and Engerman, 214.

[94] Ibid.

later, current scholarship aligns more closely with the initial assessments by the U.S. War Trade Board and Parmelee than with those of later historians. [95]

The lack of consensus resulted from several factors. There was a general lack of critical study of the topic after 1919. Some reviews and new studies were conducted by the Committee for Imperial Defense, the Admiralty, and the Foreign Office, but these were limited in both their scope and distribution. [96] After the war, both British and German officials had good reasons to exaggerate the blockade's results. Historians, in general, have worked with incomplete data and have often been guilty of "sample selection bias" in supporting their arguments. [97] Most early histories were not comparative, leading to misleading conclusions about the specificity of effects. New comparative approaches have further cast doubt on the blockade's impact by showing that allies and enemies alike suffered many negative effects previously attributed to the blockade.

In 2000, Stig Förster argued that the blockade's effects were insufficient to defeat Germany. Victory was achieved only through the significant shift in military power on the battlefield, marked by the arrival of the American Expeditionary Force in France. "Thus, one might argue that the arrival of the Americans not only tipped the balance but also saved Europe from several more years of inconclusive, disastrous war." [98] In his 2005 work *The Economics of World War I,* Albrecht Ritschl criticized the historiography of Germany's war economy as "an increasingly repressive apparatus," contending that "the German war economy was probably

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[95] Ibid., 213.

[96] Lambert, 9-14.

[97] Albrecht Ritschl, "The Pity of Peace: Germany's Economy at War, 1914–1918 and Beyond," in *The Economics of World War I,* ed. Stephen Broadberry and Mark Harrison (Cambridge: Cambridge University Press, 2005), 41, 72.

[98] Stig Förster, “Introduction,” in *Great War, Total War: Combat and Mobilization on the Western Front, 1914–1918,* ed. Roger Chickering and Stig Förster (Cambridge: Cambridge University Press, 2000), 13.

robust but nevertheless suffered severe reductions in output and productivity. Still, the German war economy appears to have been less unstable than previously thought." [99] In 2014, Barry Supple emphasized that all belligerent economies suffered greatly from the war. "Germany was only the most extreme case... the war was destroying Europe's economies." Concurrently, Alan Kramer argued that for Austria, "the blockade was virtually irrelevant." [100]

To date, no scholars have presented a persuasive theory explaining how the various economic warfare measures collectively known as “the blockade” led to victory that has withstood critical review. However, they have proposed several potential mechanisms.

Hunger

In his official history, Bell identified hunger as the blockade's decisive effect. In his post-war memoir *Bomber Command*, Air Marshal Arthur Harris defended the morality of his area bombing campaign against German cities by arguing that the horrors of the World War I blockade were far worse: "After the last war, the British Government issued a White Paper in which it was estimated that our blockade of Germany had caused nearly 800,000 deaths—naturally these were mainly of women, children, and old people. This was a death rate much in excess of the ambition of even the most ruthless exponents of air frightfulness." [101]

In his history, Bell claimed the 762,736 German deaths between 1915 and 1918 were "attributable to the blockade." [102] However, the German accounts on which Bell and other historians relied overestimated civilian war-related deaths. World War I historian Jay Winter estimated the actual number at about 478,500 out of a pre-war population of 67 million. Infant

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[99] Ritschl, 41, 72.

[100] Kramer, 472-473.

[101] Arthur Harris, *Bomber Offensive* (Barnsley, UK: Pen & Sword Books, 2005), 230. Originally published in 1947.

[102] Bell, 672.

mortality, a key indicator of public health, actually declined in Germany during the war. Winter also noted that hunger peaked in the winter of 1916–1917, two years before Germany's surrender, and that the German diet improved significantly afterward. [103]

Mortality data for all combatants suggest a different picture that, when viewed comparatively, calls into question the effectiveness of the hunger blockade. Germany had an excess death rate of 0.7 percent, second only to the United States. Even using the 1.1 percent figure, Germany's rate remained lower than that of the Allied powers, except for the U.S. Austria's rate was 1 percent. In contrast, Allied mortality rates were higher: Britain 1.3, Russia 1.4, Italy 1.4, and France 1.5. Kramer concluded, "The high civilian mortality rate was thus not caused by a decline in the availability of food." [104]

In his influential *The First World War: An Agrarian Interpretation*, Offer argued, "It would be wrong to infer from these data that Germans suffered no hunger.... The German people were often cold and hungry. But, whatever their complaints, Germany did not starve." [105] Kramer echoed this assessment, asserting that domestic factors within Germany had a greater impact on food availability than the blockade. He further claimed that the decline in Germany's industrial output was more significant than food shortages: "The long-term shortages of key industrial raw materials and oil, partly caused by the blockade and partly by the Central Powers' declining ability to pay for imports, but mostly by their enemies' ownership of the resources, were more decisive in shifting the military balance than shortages of food." [106]

Social Unrest

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[103] Kramer, 460.

[104] Ibid.

[105] Avner Offer, *The First World War*, 53.

[106] Kramer, 478-479.

Connecting social unrest directly to the blockade has also been problematic. Workers in Great Britain conducted more strikes and reduced national production more than their German counterparts throughout the war. Increases in German strikes in 1917 and 1918 were matched by an even larger rise in strikes in Britain that was clearly not caused by the blockade's effects. While living standards declined, Albrecht Ritschl noted that "the role of income distribution in the process is clearly minor." [107]

Raw Materials and War Production

By the end of the war, German steel production had decreased to nearly half its 1913 level. Kramer argued, "Some historians suggest that this, too, was the result of the blockade, which is nonsensical." Coal production was also significantly reduced, primarily due to labor shortages caused by military manpower requirements, but also due to decreased investment and timber shortages caused by diversion to trenches and fortifications at the front. [108]

Military Capabilities

In October 1918, Bavarian Crown Prince and army group commander Rupprecht complained about the shortage of oil for the army. "There is a lack of fuel for the lorries, and if the Austrians abandon the alliance and we don't get any more petrol from Romania, our air force will be grounded within two months." Essential military capabilities necessary for battlefield campaigns relied on specialized industrial processes that depended on sufficient quantities of key raw materials like oil and rubber. [109]

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[107] Ritschl, 57.

[108] Kramer, 471.

[109] Ibid., 477-478.

The viability of airpower, nascent tank forces, motorized battlefield transportation, and naval submarine and surface ship flotillas relied on these materials. The ability to control the air over the battlefield conferred a significant tactical advantage. In mid-1918, the Germans planned a massive expansion of their diminutive tank force and adopted the new tank-infantry tactics pioneered by the British for a 1919 offensive that would use concentrated tank forces to smash through fortified defensive zones in advance of the infantry, similar to the new tank-infantry tactics pioneered by the British in 1917.[110] Growing numbers of motor vehicles promised unprecedented battlefield mobility by enabling the rapid movement of the enormous quantities of troops, artillery, and supplies from distant railheads needed to support advancing or threatened ground troops. The submarines conducting the German unrestricted submarine counter "blockade" of Great Britain required large tonnages of oil, as did the torpedo flotillas of the German surface fleet. Even German capital ships relied on massive amounts of oil to boost the output of their coal-fired boilers to increase their ships ' power and speed, factors which conferred significant tactical advantages in naval engagements.

Without these capabilities, Germany and its Central Powers allies could not effectively address many of their biggest challenges in achieving victory. As Russell Weigley noted, "already in the autumn of 1918, it was the inability of the German army's Supreme Army Command to conceive of any way to cope with the rising tide of fresh American troops that more than any other single factor dictated the enemy's seeking of an armistice.... Germany had no

[110] Richard M. Ogorkiewicz, *Armour: The Development of Mechanized Forces and Their Equipment* (London: Stevens & Sons Limited, 1960), 206–7.

means whatsoever to meet the still greater flow of Americans into Europe scheduled for 1919."[111]

The economic warfare campaign by the United States and the Allies systematically removed capability after capability from the strategic chessboard until, as Offer observed, "there were no unplayed cards up Imperial Germany's sleeve. Everything was put on the table; all tricks had been tried, although not optimally, of course: Not only was food in short supply, but the blockade created coordination problems that were beyond the administrative and political capacity of the state." He continued,

> The British blockade strategy achieved its purpose, although not precisely as planned. It was originally envisaged that economic pressure would be transmitted by means of a popular challenge to imperial legitimacy, although the planners counted on unemployment rather than hunger to do the job. The blockade was a blunt and indiscriminate instrument.... But its designers had gauged correctly: Imperial Germany did not have the resources of management, ruthlessness, and legitimacy to contain discontent.[112]

If strategy is the process of selecting objectives and solving problems to achieve them, then perhaps the most strategically significant effect of the blockade was to create more problems than Germany and its Central Powers allies could solve with the resources and means available to them at an acceptable cost. For the German military, already operating on the edge of political acceptability, there was no viable path to victory.

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[111] Russell F. Weigley, "Strategy and Total War in the United States: Pershing and the American Military Tradition," in *Great War, Total War: Combat and Mobilization on the Western Front, 1914–1918*, ed. Roger Chickering and Stig Förster (Cambridge: Cambridge University Press, 2000), 345.

[112] Offer, "The Blockade of Germany," 186-187.

VII. Conclusion

In the years leading up to and through the early stages of the First World War, British strategists at the Admiralty and the Committee of Imperial Defense conceived of and attempted to implement an expansive form of "economic warfare" designed to sever the Central Powers from global trade, finance, and resources. Though Britain initially tried a far-reaching, legally unprecedented blockade, the government soon retreated to a more traditional framework under the 1909 London Declaration. As military campaigns failed and war costs escalated, Britain and its allies steadily hardened their approach, expanding contraband lists, loosening evidentiary standards, and centralizing bureaucratic authority. Neutral nations, especially those bordering Germany, posed persistent challenges by continuing their lucrative trade with the Central Powers. When the United States entered the war in 1917, it created new legal and administrative structures to align with Allied blockade efforts, helping to enforce tighter controls over transatlantic exports and shipping. By 1918, Allied economic warfare was considerably more effective than at the war's outset and had evolved into modern economic warfare.

New data and approaches have made it difficult to argue that the economic blockade was the decisive campaign that won World War I. However, the widespread belief that the blockade was the decisive factor shaped British strategists' hypotheses at the outset of the Second World War. As Gordon Wright noted in his examination of World War II, *The Ordeal of War*:

> Britain's aim ... was to concentrate on economic warfare: to undermine the enemy's war-making potential and to postpone as long as possible the clash of arms on the battlefield. Indeed, during the early part of the war, some British leaders showed a tendency to view the economic weapon as a substitute for, rather than a supplement to, the use of military force.

> In part, this British attitude was the product of interwar folklore. The Germans, after 1918, had fostered the legend that the so-called 'hunger blockade' of the First World War had, in the end, starved out the country and destroyed its will to resist. This legend, which contained just enough truth to be plausible, had found fairly wide acceptance in the Western nations as well. [113]

What neither British nor French strategic leaders anticipated was that their expectations for similar strategic successes from this economic warfare campaign were based on a false historical analogy. When Allied economic warfare agencies failed to deliver the expected decisive blow to the Axis, the campaign was deemed a failure. Medlicott, the British official historian of the blockade, introduced his subject with the disclaimer, "Too much, it is now agreed, was expected of the blockade in the Second World War." [114]

With the exception of a handful of largely unknown American scholars focused on the utility of economic warfare during the emerging Cold War, the false comparison between the myth of the World War I economic warfare campaign and the reality of the World War II campaign led historians to condemn the latter as a failure. This assessment has never been challenged or revised. But what if the American and British economic warfare campaigns were evaluated on their own merits, without reference to the artificial standard set by more than half a century of uncritical scholarship? What would that campaign look like?

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[113] Wright, 53.

[114] Medlicott, 1:xi.

Chapter 3 - Interwar Development of Economic Warfare in the United States

I. Introduction

The US economic warfare campaigns of World War II began with a memo.

Memorandum for Colonel Maxwell, June 12, 1940.

The Chief of Staff directs that you report to General Watson at the White House on Thursday morning, June 13, for instructions regarding HR 9850.[115]

Lieutenant Colonel Russell Lamont Maxwell, an Ordnance Branch officer with extensive experience in munitions production and procurement after 32 years in the US Army, was serving in the G-4 (logistics) section of the Army General Staff. The arrival of this brief memorandum on Maxwell's desk that Wednesday marked a turning point in American economic warfare.

The following morning, Maxwell reported to the President's aide and appointments secretary, Edwin "Pa" Watson. Watson had graduated from West Point in 1908, only a few weeks before Maxwell had entered the Academy.[116] Watson and Maxwell had both been commissioned as second lieutenants in the Field Artillery Branch after graduation—Maxwell later transferred to the Ordnance Branch. Watson first served in the White House in 1915 as a

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[115] "Memorandum for Colonel Maxwell, Subject: H.R. 9850, To expedite strengthening of the National Defense," June 12, 1940, Box 6, Folder Exhibit A Historical Background, Entry 146 Office of Administrator, Records Analysis Division, Historical Monographs Prepared Outside Division, RG169, NACP.

[116] *The Howitzer, 1908*, 122 http://digital-library.usma.edu/digital/collection/howitzers/id/14105/rec/7 Watson's classmates had given him his nickname "Pa" because he was older than many of his classmates after repeating his freshman year, known as a "Plebe" year at the Academy, three times. His classmates claimed he had "taken more examinations than any other living cadet" – "some even claim that 'Pa' was at West Point before [George] Marshall entered the VMI [Virginia Military Institute], but this has never been proven." The "Marshall" mentioned was Army Chief of Staff George C. Marshall.

military aide to President Woodrow Wilson, then served in France during World War I, where he received a Silver Star. He returned to the White House in 1933 as Franklin D. Roosevelt's senior military aide and became his personal secretary in 1939.

Watson informed Maxwell that he was to serve as the President's liaison officer and the Administrator of Section 6 of House Resolution 9850, which the White House anticipated would be passed by Congress soon.[117] The legislation, titled "An Act to Expedite the Strengthening of the National Defense," had recently been introduced as part of a larger package of national defense-related legislation and appropriations in response to France's unexpected and rapid capitulation following a German offensive that began on May 10.

In the eight months following the German invasion of Poland in September 1939, the armies of France and Great Britain faced off against Germany along the Franco-German frontier in what was termed a "Phony War."[118] The outbreak of this geographically and militarily limited European conflict had not provoked much of a response from the United States. France was widely believed to have the world's strongest army, and Britain possessed the world's most powerful navy. The President had not requested, nor had Congress considered, any significant increase in military funding or appropriations. The unexpected collapse of the Allied armies in France jolted the United States government out of its complacency. On the day Maxwell met with Watson at the White House, German forces had reached the outskirts of Paris. A few days earlier, the French government had abandoned the capital and fled to Vichy, while Italy had joined the German conquest. The deteriorating situation in France undermined the American

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[117] Maxwell Notes, June 13, 1940. Box 6, Folder Exhibit A Historical Background, Entry 146 Office of Administrator, Records Analysis Division, Historical Monographs Prepared Outside Division, RG169, NACP.
[118] Robert H. Connery, *The Navy and the Industrial Mobilization in World War II* (Princeton, NJ: Princeton University Press, 1951), 7.

assumption that the powerful French Army and the Royal Navy could contain the war at the German frontier.

President Roosevelt addressed this new strategic reality to Congress in mid-May: "These are ominous days—days whose swift and shocking developments force every neutral nation to look to its defenses in the light of new facts. The brutal force of modern offensive war has been loosed in all its horror. New powers of destruction, incredibly swift and deadly, have been developed; and those who wield them are ruthless and daring. No old defense is so strong that it requires no further strengthening, and no attack is so unlikely or impossible that it may be ignored."[119]

Over the following two months, Congress approved nearly $9 billion to fully equip and supply an Army of one million men and to begin acquiring long-lead-time weapons for another million men, while providing 18,000 new airplanes to the Army Air Force. To put this number in perspective, in the nineteen fiscal years following World War I, Congress had spent only $6.5 billion in total on the Army. Congress authorized a similar amount for the Navy—enough to expand the fleet by over 70 percent into a two-ocean Navy.[120]

A significant threat to the expansion of American military power was the ongoing outflow of critical raw materials and machine tools through exports to potential allies and adversaries alike. The previous February, the joint Army and Navy Munitions Board—the logistical equivalent of the Joint Board—had issued a warning listing 28 critical and strategic raw materials essential for munitions that were already in short supply nationally. The United

[119] Ibid., 7-8.

[120] Smith, 126–33.

States depended on foreign sources for some of these materials, and the Board was concerned that an expansion of the war might jeopardize these sources.[121]

At the request of the Army, which assisted in drafting the legislation, Section 6 of the Act empowered the President "to prohibit or curtail the exportation of any military equipment or munitions, or component parts thereof, or machinery, tools, or materials or supplies necessary for the manufacture, servicing or operation thereof...." The primary purpose of Section 6 was to conserve materials needed for the impending military buildup by limiting exports of strategic materials and machine tools.[122]

Watson informed Maxwell that the President was using his newly granted authority to establish an Office of the Administration of Export Control, which would operate directly under him. Roosevelt viewed export control as a military function, so he assigned the role to Maxwell. The Office would initially be staffed by a small group of military officers from both the Army and the Navy. This military staff would create a system for licensing exports of designated critical materials. The State Department's Division of Controls, already responsible for licensing the export of munitions and a few other commodities like helium and tin, would handle most of the office's administrative work in the licensing process, while customs agents would enforce the licensing system at the ports.

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[121] "Need for Strategic and Critical Raw Materials," undated, Box 1, Folder Chap. 1 The Need for Strategic and Critical Raw Materials, Entry 145 Office of Administrator, Records Analysis Division, Historical Monographs Prepared by Division, RG169, NACP.

[122] "An Historical Record of Export Control," undated, Box 2, Folder Historical Record of Export Control, Entry 146 Office of Administrator, Records Analysis Division, Historical Monographs Prepared Outside Division, RG169, NACP, 2.

Before leaving the White House, Maxwell met with Harry Hopkins and Edward Stettinius, Jr, for further instructions. Hopkins was the Secretary of Commerce, but more importantly, he was the President's closest aide. Until 1943, Roosevelt directed much of the national economic, military, and diplomatic strategy through Hopkins. Stettinius, a close friend of Hopkins, had recently left his chairmanship at US Steel to head the Industrial Materials Division of the recently established National Defense Advisory Commission (NDAC). At the conclusion of their meeting, Hopkins directed Maxwell to the nearby Munitions Building,[123] where he met Colonel Harold Rutherford, chief of the Planning Section of the Office of the Assistant Secretary of War (OASW), and Colonel Charles Hines, executive secretary of the Army and Navy Munitions Board, for further instruction. After meeting with the Army officers, he proceeded to the State Department to meet with Joseph Green, the chief of the Division of Controls.[124] The day's meetings marked a convergence of three strands of organizational development in the State Department, the military, and the White House that shaped how the United States would conduct economic warfare in World War II.

II. The Department of State

Secretary of State Cordell Hull established the Division of Controls in November 1938 to administer the Neutrality Act's restrictions on exporting munitions to belligerent nations. The State Department first began regulating the export of munitions from U.S. manufacturers to

[123] The Munitions Building was the predecessor of the Pentagon office building that housed the civilian and military staffs of the Departments of War and Navy. It was located on the National Mall in Washington, DC, where the Vietnam Memorial stands today.

[124] "Export Control by Brigadier General R.L. Maxwell, USA, Administrator of Export Control," May 31, 1941, Box 964A, Folder Short Course No. 2, Entry 158 Economic Warfare Studies of the Army Industrial College, RG169, NACP.

countries experiencing "domestic violence" in 1922.[125] When Congress passed the first Neutrality Act in 1935, the State Department created the Office of Arms and Munitions Control, headed by Green. This office was later elevated to the Division of Controls.[126] Green was the chief of the Division of Controls, responsible for processing export license applications and, based on directions from Maxwell and his office, issuing approved export licenses or letters rejecting applications.[127]

The State Department had a broad interest in foreign economic policy and aimed to participate in every aspect of it. It included at least fifteen agencies focused on economic defense. Beyond the general implications of export control on foreign policy, the State Department sought to establish a dominant role in two areas of foreign policy related to economic strategy and economic warfare.[128] The first was an effort to sanction Japan and the Soviet Union (and later Germany) for using bombing aircraft to conduct terror attacks against civilian populations in Chungking, China, and Helsinki, Finland. In December 1939, the

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[125] Initially, restrictions were for arms exports to China, which was in the midst of civil war, but these restrictions were extended to Honduras (1924), Nicaragua (1926), and Cuba (1934).

[126] "Conference with Major General R.L. Maxwell, Formerly Administrator of Export Control," November 11, 1943, Box 1, Folder Manuscript: Interview with MG Russell L. Maxwell, Entry 144 Office of Administrator, Records Analysis Division, Historians' Reports of Interviews, RG169, NACP. "Duties and Functions of the Division of Controls in the Department of State," September 27, 1941, Box 994, Folder H, Entry 171 "History of Export Control" Exhibits, RG169, NACP.

[127] His students included his deputy, Charles Yost, and the George F. Kennan. "Joseph C. Green, Former Foreign Service Officer," Washington Post, August 5, 1978, https://www.washingtonpost.com/archive/local/1978/08/05/joseph-c-green-former-foreign-service-officer/dfe326e7-c8b4-4692-8c37-9aa7b77a9890/.

[128] "Pre-Pearl Harbor Organization," undated, Box 13 Folder FEA Administrative History Pre-Pearl Harbor Organization, Entry 145 Office of Administrator, Records Analysis Division, Historical Monographs Prepared by Division, RG169, NACP.

Department asked American oil companies to voluntarily participate in a "moral embargo" of "plans, plants, manufacturing rights, or technical aviation required for the production of high-quality aviation gasoline." Gaining control of export licensing would enable them to impose legally binding, coercive sanctions in support of US foreign policy.[129]

The second area was the procurement of raw materials by US government and private business corporations in foreign countries. The Department's Adviser on International Affairs, Herbert Feis, chaired an Interdepartmental Committee on Strategic Materials responsible for overseeing foreign purchases of raw materials to establish a strategic stockpile for defense purposes. In January 1940, the Army and Navy Munitions Board proposed imposing export controls to halt the then-unrestrained exports of strategic raw materials. Gaining control of export licensing would help justify consolidating the direction of foreign raw material purchasing.[130]

However, the State Department was not the only agency involved in export control administration. For Roosevelt, according to [some reference to Budget], "the organizational problem, therefore, became that of finding means of coordinating the functions of the several agencies within the framework of policy decisions established by the Department and the

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[129] *Foreign Relations of the United States (FRUS),* 1939, Volume III, The Far East, Eds. Matilda F. Axton, et al. (Washington, DC: US Government Printing Office, 1955), Document 526 "Statement Prepared by the Division of Controls," Document 528 "Memorandum Prepared in the State Department," Document 529 "The Ambassador in Japan (Grew) to the Secretary of State." F*RUS,* 1933-1939, The Soviet Union, Eds. Rogers Platt Churchill, et al. (Washington, DC: US Government Printing Office, 1952), Document 617 "The Secretary of State to the Ambassador in the Soviet Union (Steinhardt)." Congress was currently considering several bills that would impose economic sanctions on Japan, which the State Department feared would be detrimental to its efforts to manage diplomatic efforts to constrain Japan.

[130] *FRUS,* 1940, II, General and Europe, Eds. Matilda F. Axton and Shirley L. Phillips (Washington, DC: US Government Printing Office, 1957), Document 318 "The Secretary of State to President Roosevelt," Document 319 "Joint Statement Released by the Army and Navy Munitions Board on Exports of Essential Raw Materials, January 19, 1940."

President."[131] In May and June 1940, there was uncertainty about the State Department's role in the strategy. The official history of the wartime Roosevelt administration noted, "The central question of the degree of control to be exercised by the Department of State in international dealings was unsettled at the opening of World War II."[132]

Until World War I, the development and supervision of American foreign policy had been nearly exclusive to the Department of State. The role and strategic function of the State Department were undergoing revision due to systemic changes and the President's desire to consolidate the development and conduct of all essential aspects of strategy. During the First World War, the unprecedented need for collaboration among government departments and agencies broke the State's monopoly on foreign relations. The Department no longer had enough personnel or the specific technical expertise needed to address economic issues in foreign affairs arising from total war. In 1939, representatives from the Departments of Treasury, Agriculture, and Commerce joined the military and naval attachés at embassies to handle the technical aspects of foreign relations.[133]

Moreover, the State Department was internally divided. Responsibility for developing and executing strategic diplomatic concepts was spread among competing individuals, offices, and divisions that often disagreed on fundamental issues. For example, key figures in

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[131] War Records Section, Bureau of the Budget, *The United States at War: Development and Administration of the War Program of the Federal Government* (Washington, DC: US Government Printing Office, 1946), 408.

[132] Ibid., 406-407.

[133] Ibid., 406. “Report of Proceedings: Hearing held before Military Defense Investigating Committee, Special Committee No. 3” June 3, 1941, Box 995, Folder Historical Export Control Exhibits File No. 2 Faddis Hearing with State, Entry 171 History of Export Control Exhibits, RG 169 Records of the Foreign Economic Administration, National Archives at College Park, MD.

formulating diplomatic strategies regarding Japan included Secretary Hull, Under Secretary Wells, Assistant Secretary Dean Acheson (starting in 1941), Political Adviser for Far Eastern Affairs Stanley Hornbeck, Adviser on International Economic Affairs Herbert Feis and his Division of Economic Affairs, Chief of the Division of Far Eastern Affairs Maxwell Hamilton, Chief of the Division of Controls Joseph Green, and Ambassador to Japan Joseph Grew. Unlike the military services, the State Department lacked an effective chain of command or a mechanism to enforce consensus on strategic problems. Hull's frequent absences due to declining health further weakened the Department's ability to negotiate with other agencies.

Finally, although it was not clear to his Cabinet at the time, Roosevelt was consolidating the direction and oversight of key strategic functions within new organizations under the White House. As historian Robert Dallek notes:

> In his handling of major foreign policy questions as well, Roosevelt was usually his own decision-maker. Distrustful of the State Department, which he saw as conservative and rigid, he divided responsibility for foreign affairs among a variety of agencies and men.... By pitting Welles against Hull, political envoys against career diplomats, Treasury against State, Stimson against Morgenthau, and a host of other official and personal representatives against each other for influence over foreign policy, he became a court of last resort on major issues and kept control in his own hands.[134]

The role of the State Department increasingly shifted to that of an editor rather than the author of wartime foreign policy. Instead of creating new concepts and leading wartime

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[134] Robert Dallek, *Franklin D. Roosevelt and American Foreign Policy, 1932–1945* (Oxford: Oxford University Press, 1979), 532.

diplomatic efforts, the Department's foreign missions provided support for other agencies conducting operations aligned with American grand strategy.

Appending the Division of Controls to the Office of the Administration of Export Control was a practical solution that preserved the President's ability to develop and direct grand strategy while making more aggressive actions against the Axis more acceptable by disguising a nascent economic warfare campaign as national defense. By leveraging the existing capabilities of the Division of Controls, he could quickly establish an effective export control administration. The War, Navy, and State Departments would cover the expenses, eliminating the need for additional appropriations or oversight from Congress. The actual requirements for national defense were only clear to a small group of officers within the Army and Navy Munitions Board, making it difficult for potential critics to challenge the necessity of export controls for defensive rather than offensive actions. Subordinating the Division to Maxwell streamlined decision-making from the Cabinet Departments to the White House while retaining the knowledge, experience, and perspectives of State Department leaders. Most importantly, this structure preserved the President's decision-making authority and ensured that Roosevelt would make the final calls.

III. The Military

The Office of the Assistant Secretary of War (OASW), the Army and Navy Munitions Board (ANMB), and the Industrial Mobilization Plan (IMP) were established based on lessons learned during World War I. These reforms emerged from wartime failures and the post-war consensus among the military, the White House, and Congress that the U.S. needed a more effective method to mobilize industry.

During the two years of conflict, the Army mobilized over four million men and deployed half of them to Europe. When fighting ended in November 1918, the American

Expeditionary Force (AEF) was still a "beggar army," reliant on France and Great Britain for most of its weaponry, including all its artillery, tanks, and aircraft. Severe mismanagement by the War Department hindered both munitions procurement and the necessary industrial expansion to support military needs.[135]

Throughout the war, the Army and Navy ordered 50,000 pieces of artillery, 23,405 tanks, 1,714 ships, and thousands of combat aircraft. However, the AEF received only 145 American-made 75mm guns, and the Navy and Merchant Marine received just 107 ships. No American-produced aircraft were used in combat. Some 64 six-ton and 15 three-ton tanks were delivered after the armistice. In contrast, the Army successfully procured 7,000,000 pairs of spurs and 366,528 gas masks for horses.[136] General John J. Pershing noted, "It seems strange that with American genius for manufacturing from iron and steel, we should find ourselves after a year and a half of war almost without these mechanical contrivances which had exercised such a great influence on the Western Front in reducing infantry losses."[137]

The core problem was uncoordinated procurement by supply arms and services acting as independent bureaucratic entities. The bureaus inundated a relatively small number of manufacturers with orders while many factories remained idle or underutilized. There was no mechanism within the War Department to coordinate supply sources, allocate manufacturing

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[135] David R. Woodward, *The American Army and the First World War* (Cambridge: Cambridge University Press, 2014), 3. Marvin A. Kreidberg and Merton G. Henry, *History of Military Mobilization in the United States Army, 1775–1945* (Washington, DC: Department of the Army, 1955) 247. On April 1, 1917, the Army had a total of 291,880 soldiers, of which 127,588 were in the Regular Army and 164,292 were in the National Guard.

[136] Industrial College of the Armed Forces (ICAF), *Industrial Mobilization: The Relevant History* (Washington, DC: National Defense University, 1985), 5. Timothy D. Gill, *Industrial Preparedness: Breaking with an Erratic Past*, National Security Affairs Monograph Series 84-6 (Washington, DC: National Defense University Press, 1984), 4.

[137] Industrial College of the Armed Forces (ICAF), *The Industrial College of the Armed Forces: The First Twenty-Five Years* (Washington, DC: U.S. Government Printing Office, 1947), 1.

resources rationally, resolve intra-bureau conflicts, or prioritize production to meet the AEF's requirements.[138] David Lloyd George, the British Prime Minister during the last two years of the war, observed, "There were no braver or more fearless men in any Army, but the organization at home and behind the lines was not worthy of the reputation which American businessmen have deservedly won for smartness, promptitude, and efficiency."[139]

President Wilson established a War Industries Board composed of prominent industrial leaders to coordinate procurement needs. However, the bureaus refused to work effectively with the Board, which lacked the necessary power and authority to fulfill its functions. Congress eventually took corrective action by granting the President sweeping powers for the duration of the war.[140] With this new authority, the President revitalized the War Industries Board and delegated significant power to its new chairman, Wall Street financier Bernard Baruch.

Had the fighting in France continued into 1919 as expected, the reforms would likely have had a decisive impact on the balance of combat power between the Associated Powers and the Central Powers. Instead, as a post-war Industrial College text reported, "As the facts of our industrial failures became increasingly evident, the people, shocked by the realization that their war-nurtured acceptance of the supremacy of American industrial might was based more upon propaganda than fact, turned on the Government and demanded full investigation and effective action to prevent any repetition of the situation."[141]

The wartime lessons on military procurement and national economic mobilization were codified into Section 5a of the National Defense Act of 1920, based on Assistant Secretary of

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[138] War Department, *Industrial Mobilization Plan, Revised 1936,* vii-ix.

[139] ICAF, *The First Twenty-Five Years*, 1.

[140] The legislation was called the Overman Act. Its official title was the Departmental Reorganization Act.

[141] ICAF, *The First Twenty-Five Years*, 1.

War Benedict Crowell's recommendation that Congress empower the Assistant Secretary to oversee military procurement and industrial mobilization.[142] The section stated: "...the Assistant Secretary of War, under the direction of the Secretary of War, shall be charged with the supervision of procurement of all military supplies and other business of the War Department pertaining thereto and the assurance of adequate provision for the mobilization of material and industrial organizations essential to wartime needs."[143]

The final legislation preserved some autonomy for the supply bureaus but failed to clearly delineate the division of responsibilities for mobilization between the General Staff and the Assistant Secretary. The Secretary of War quickly resolved this contest.[144] The General Staff would identify the requirements for quantities of munitions, equipment, and supplies, as well as the timelines for when they would be needed. The Assistant Secretary of War would plan the procurement of those munitions, equipment, and supplies within the specified timeframe. The General Staff would plan and oversee the mobilization of national manpower, while the Assistant Secretary would manage the mobilization of national industry.[145]

To assist the Assistant Secretary, the Secretary of War authorized the creation of an Office of the Assistant Secretary of War (OASW) with a staff of officers primarily from the Supply Arms and Services. The staff was organized into two sections: one to oversee and

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[142] Paul A. C. Koistinen, *Planning War, Pursuing Peace: The Political Economy of American Warfare, 1920–1939* (Lawrence: University Press of Kansas, 1998), 27-29.

[143] Kreidberg and Henry, 380.

[144] By issuing a number of general orders by institutionalizing the recommendations of a board of senior officers named after its chair, Major General James Harbord.

[145] Kreidberg and Henry, 381.

coordinate procurement by the supply bureaus and the other to plan for future wartime expansion and mobilization of industry. The planning branch's work was the primary focus of the OASW.

To prepare officers for procurement and industrial mobilization planning, Secretary of War Baker advocated for a formal professional military education system. He proposed "a school for a special line of industrial knowledge tied up to the Army in which the possibility of expansion and conversion of business into the Army might be studied out in advance of any emergency."[146]

A group of staff officers in the Army's Ordnance Branch convinced the OASW Planning Branch to establish a formal training program, envisioned as a hybrid of Harvard Business School and the Army War College. In 1923, the OASW assigned eight officers from the Supply Arms and Services to Harvard University for training in business and pedagogical methods. These officers became the initial faculty for the new Army Industrial College (AIC), established in February 1924 "for the purpose of training Army officers in the useful knowledge pertaining to the supervision of procurement of all military supplies in time of war and to the assurance of adequate provision for the mobilization of material and industrial organization essential for wartime needs."[147]

From its inception, the College maintained a close relationship with the Harvard Graduate School. Like the prestigious business school, the AIC emphasized "learning by doing," with students working in small faculty-student committees on a series of case studies. The course

[146] ICAF, *First Twenty-Five Years*, 2.

[147] Ibid., i. Army General Order No. 7 dated February 25, 1924.

of instruction, initially six months, was later expanded to a full year. By 1940, 804 officers, including those from the Navy and Marine Corps, had graduated from the College.[148]

Initially, the AIC struggled to attract the most capable officers from some of the Supply Arms. Given the limited pool of mid-career officers available to each branch in the small interwar Army, the leaders of the Supply Arms had to choose between allocating the most talented officers to their own staffs, the General Staff, and the AIC, which increased the chance an officer would be assigned to the OASW staff.[149] The Ordnance Branch notably supported the AIC and the OASW. Responsible for procuring and maintaining munitions, the Ordnance Branch faced unique challenges, as most munitions and equipment could not be produced in wartime quantities without significant mobilization of the peacetime economy. Thus, the Ordnance Branch had a critical interest in procurement and industrial mobilization planning. Ordnance officers dominated the OASW staff during the interwar and early war years.[150] Maxwell's assignment to the third AIC class in 1925 indicated that branch leaders held him in high regard for his past performance and future potential.

At the time the President appointed Maxwell as the Administrator of Export Control, each of the military's primary economic mobilization agencies was led by Maxwell's peers, the Ordnance officers who graduated from the Army Industrial College (AIC): COL H.K. Rutherford, Chief of the Office of Army Supply and Warehousing (OASW) (Class 5 AIC 1926); COL H.B. Jordan, Army-Navy Munitions Board (ANMB) (Class 6 AIC 1927); COL E.E. MacMorland, President's Liaison Committee for Ordnance Department (OD) (Class 3 AIC 1925,

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[148] Albert A. Blum, "Birth and Death of the M-Day Plan," in *American Civil-Military Decisions: A Book of Case* Studies, ed. Harold Stein (Tuscaloosa, AL: University of Alabama Press, 1963), 63.

[149] ICAF, *First Twenty-Five Years*, 5.

[150] Koistinen, *Planning War*, 58-60.

the same class as Maxwell); J.H. Burns, OASW/President's Liaison Committee/Lend Lease (Class 5 AIC 1926); and COL F.H. Miles, AIC Commandant (Class 8 AIC 1931). Maxwell was a member of Class 3 in 1925. Other notable graduates of the AIC included later commander of the US Army Air Forces, General Henry “Hap” Arnold, who attended with the second class in 1925, and General Dwight D. Eisenhower, who graduated in 1933 and also served as an instructor at the College.

The first step in planning for industrial mobilization was to determine the munitions requirements to support the Army's war plans. This responsibility rested with the General Staff. While the AIC faculty educated their first cohort of officers, the General Staff completed its first post-WWI war plan—the 1924 General Mobilization Plan. A future war would present a series of challenges that the General Staff needed to address with a strategy—or theory of victory. This strategy would require identifying the necessary steps to achieve victory, each involving the Army's development and deployment of specific capabilities within a defined geography and timeframe. The Staff then designed a force composed of various unit types with the required capabilities.

Unlike the Navy, the post-war Army faced uncertainty regarding the type of war it might be required to fight in the future. Therefore, the 1924 plan aimed to mobilize a force similar in size and composition to the WWI Army. This uncertainty posed significant challenges for mobilization planners throughout the interwar period. War planners assumed that the plan represented the maximum effort the American economy and population could sustain.

The General Staff had two specific tasks in determining munitions and equipment requirements. First, in collaboration with the using services, they established designs and specifications for each type of munitions required, ensuring that manufacturers could produce

exactly what was needed by following the provided specifications. The Staff then determined the number of end items necessary for each type of unit, publishing these figures in tables of basic allowances, equipment, and organization. After projecting the number of each type of unit required, they calculated the total number of end items needed for the entire force.[151]

After receiving requirements from the General Staff, procurement planners in the OASW and the Service and Supply Arms calculated the indirect or secondary requirements necessary to produce sufficient quantities of the munitions specified in General Staff plans. To efficiently utilize existing industrial plants and manufacturing facilities, the OASW apportioned the SA&S requirements among 14 regional procurement districts. Each district's staff then allocated specific facilities for exclusive use by a particular supply branch, should the Industrial Mobilization Plan be implemented. This allocation process, which by 1930 covered over 17,000 facilities, helped eliminate conflicts between branches and services, prioritize output, and facilitate the equitable distribution of munitions work. Once allocated a facility, supply branch staff physically inspected it to verify that it met their procurement needs. When the existing industrial plant was inadequate to produce munitions or equipment without civilian analogs, branch staff collaborated with facility owners to develop plans for expanding or converting facilities to meet wartime needs.[152]

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[151]United States War Department, *Industrial Mobilization Plan, Revised 1933* (Washington, D.C.: U.S. Government Printing Office, 1933), 5. A. B. Quinton, Jr., "War Planning and Industrial Mobilization," *Harvard Business Review 9*, no. 1 (October 1930): 10-11. Major Quinton was an officer in the Army Ordnance Branch. The publication of this article in the Harvard Business Review is indicative of the close relationship between the Army Industrial College and the Harvard Business School. He graduated from the AIC in June 1933 (the same year as Major Dwight D. Eisenhower, and also served as an instructor at the College. He commanded the Detroit Ordnance District during World War II.

[152] Quinton, 13-14.

Procurement planning was only the first step in preparing the national industrial base for a major war. Planners also needed to ensure that the necessary resources would be available for military production at the moment of crisis. This was the role of national economic mobilization planning. The goal was to direct and control the country's resources to support military procurement with minimal delay and maximum effectiveness while ensuring fairness and facilitating a smooth transition back to a peacetime economy after the war. Initially, mobilization planning lagged behind procurement planning due to the limited number of OASW officers and the more pressing nature of procurement needs.

Douglas MacArthur, recently elevated to Chief of Staff of the Army, prompted the completion of the Industrial Mobilization Plan in 1930. Concurrently, Congress established a War Policies Commission to "consider amending the Constitution to allow Congress to take private property for public use during war, methods of equalizing burdens, and removing war profits, along with a study of policies to be pursued in the event of war."[153] The Commission's hearings aimed to garner support from Congress and the American public for economic mobilization planning. MacArthur personally introduced the plan to the Commission, stating, "Experience in modern war has demonstrated that lack of adequate plans for industrial mobilization and War Department procurement is a source of many evils in war."[154]

Dwight D. Eisenhower, then a Major assigned to the OASW, was the primary author of the plan. His work synthesized years of study and preliminary efforts by the OASW Planning Branch and the AIC, significantly influenced by former World War I War Industries Board head

[153] Blum, 66. Koistinen, *Planning War,* 99.

[154] Harold W. Thatcher, *Planning for Industrial Mobilization, 1920-1940* (Washington, D.C.: Historical Section, General Administrative Services Division, Office of the Quartermaster General, 1943), 4.

Bernard Baruch.[155] The plan underwent revisions in 1933, 1936, and finally in 1939. Although the IMP was remarkably concise, it included numerous annexes that, by 1939, were each several times longer than the base plan. The document is best viewed as a plan of plans. Its introduction provided the following summary:

> To summarize: The following comprise the essentials of a complete plan for the mobilization of industry:
>
> a. Procurement planning.
>
> (1) Determination of requirements.
>
> (2) Development of plans for the procurement of such requirements.
>
> b. Plans for control of economic resources and mobilization of industry.
>
> (1) Determination of measures to be employed to ensure the proper coordination and use of the Nation's resources.
>
> (2) Development of plans for the organization of administrative machinery that will execute these control measures.
>
> The execution of the plans under "a" above is a responsibility of the War and Navy Departments, while the execution of plans under "b" above is a responsibility of the President, acting through such agencies as he and Congress may establish. [156]

Though the plans varied slightly with each revision, each version adhered to the same six-part framework: first, an introduction that summarized the plan and justified industrial

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[155] Kerry E. Irish, "Apt Pupil: Dwight Eisenhower and the 1930 Industrial Mobilization Plan," *The Journal of Military History* 70, no. 1 (January 2006): 43–45. Eisenhower's work on the IMP brought him to MacArthur's attention and may have been a significant contributing factor to Eisenhower's future elevation to top commands during the war.

[156] Ibid., 31–61.

mobilization by referencing the costly failures of World War I; second, a summary of the Procurement Planning Process; third, an outline of economic control measures—covering production facilities, raw materials, labor, finance, power, and transportation (with machine tools added later)—including Priority Control, Price Control, Commandeering, Control of foreign trade, and the creation of government corporations; fourth, a proposed organizational structure for new government "super" agencies to implement national economic mobilization; fifth, an explanation of the interim role of the Army and Navy Munitions Board (ANMB) during the transition from peace to wartime; and finally, an annex providing draft legislation to grant these agencies the legal authority needed to enforce economic controls.[157]

At first, the Army initiated and conducted industrial mobilization planning without the support of or input from the Navy. As the War Policies Commission considered the 1930 "MacArthur Plan," the Navy's chief representative to the hearings, Captain H.K. Cage, director of the Material Division, Office of Naval Operations, testified, "The Navy Department is vitally interested in a national mobilization plan and approves in general ... the plan submitted...." He admitted the Navy had not conducted mobilization planning, "but it feels it can work under the national industrial mobilization plan as submitted by the Assistant Secretary of War and General MacArthur."[158]

Cage's testimony grossly overstated the Navy's actual interest. The Navy had not participated in the preparation of the plan.[159] In 1922, the Secretaries of War and Navy had established a joint Army and Navy Munitions Board (ANMB) to coordinate procurement and

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[157] War Department, *Industrial Mobilization Plan, Revised 1933*, viii.

[158] Connery, 37.

[159] Ibid., 35.

industrial mobilization planning between the services. However, fundamental disagreements over requirements stemming from contradictory hypotheses of future wars quickly deadlocked cooperation after 1924.[160]

In 1943, Thatcher characterized the early ANMB: "In other words, the War Department apparently subscribed to the well-known humorous definitions of board, namely, that they are long, narrow, and wooden."[161] As Eisenhower was preparing the IMP in 1930, he wrote,

> One of the difficulties encountered in agreeing upon an organization is the lack of close cooperation and coordination (or rather lack of mutual understanding) between the Army and the Navy....
>
> To begin with, the Navy does not seem greatly interested in any point except that it shall receive very quickly after M-day the personnel it desires. The general attitude of that service is, “We received what we wanted in the last war. Why worry?”[162]

Eisenhower's diagnosis of the Navy's mobilization malaise was generally accurate. The Navy leaders' ambivalence to coordinated procurement planning and industrial mobilization planning was rooted in the Navy's experience in World War I, the service’s organization, and its interwar strategic hypothesis.

The Navy experienced the First World War as a small war conducted by a relatively small number of ships and men over the limited geography of the North Atlantic and North Sea. The war cost the Navy only four warships—one armored cruiser, two destroyers, and one

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[160] Thatcher, 46.

[161] Ibid.

[162] Ibid., 45.

submarine.[163] Between 1916 and 1919, the Navy's contribution to the war cost the nation only $3.5 billion—a mere fraction of the nearly $100 billion consumed by the Navy between 1941 and 1945. The Navy was concerned with expanding an existing shipbuilding industry. It did not need to share the Army's concern with converting the civilian industrial base from consumer items to munitions production.[164]

In World War I, the Navy's much smaller requirements were well within the procurement capabilities of its bureaus and were fulfilled by a large pre-existing industry facilitated by effective civilian leadership. The Navy system worked. Bernard Baruch, the chairman of the War Industries Board, noted that the Navy, "in placid serenity, pursued its own way."[165]

Accordingly, the Navy avoided the post-war criticism directed at the Army. The National Defense Act of 1920 neither mandated the Navy's participation in future industrial mobilization planning nor attempted to reform the Navy's own procurement bureaus. The Department of the Navy was composed of several specialized bureaus, which often acted as "watertight compartments" in handling the various activities necessary to support the Fleet. The Secretary of the Navy nominally possessed the authority to direct the activities of these bureaus, but he actually had few tools to either coordinate the activities of the Bureaus or compel their compliance with his directives. [166] The Assistant Secretary of the Navy, who, together with the Assistant Secretary of War, headed the Army and Navy Munitions Board, had few of the powers

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[163] "United States Navy in World War I," Naval-History.net, accessed October 26, 2024, http://naval-history.net/WW1NavyUS.htm..

[164] Connery, 32.

[165] Bernard M. Baruch, *American Industry in the War: A Report of the War Industries Board* (New York: Harcourt, Brace & Howe, 1921), 36.

[166] Connery, 14.

over the Navy's procurement Bureaus that the National Defense Act of 1920 had bestowed on his Army counterpart. Nor did he have a staff like the OASW. [167]

The Bureau of Supplies and Accounts, which believed it was the prime procurement bureau, objected to the Chief of Naval Operations in July 1935:

> The last revision of the Industrial Mobilization Plan—that of 1933—states that the Navy Department has collaborated in the revision, and it bears the approval of the Secretary of the Navy as of February 23, 1933. The Bureau of Supplies and Accounts, the legal and responsible procurement agency of the Navy, did not participate in the revised preparation, nor was it called upon to give evidence or opinion on the subject matter pertinent to its functions.[168]

Bureaucratic competition throttled interest and limited effort in procurement and industrial mobilization planning, but Navy leaders' interwar assumptions about the nature of a future war provided little incentive to prioritize industrial mobilization. Unlike the Army, which was forced to substitute the last war as the basis for computing future requirements, the Navy enjoyed nearly two decades of strategic clarity that lasted until the fall of France in 1940.

This strategic clarity derived from the interwar naval limitation treaties and the Navy's own war plans, especially a series of plans for conducting a war with Japan labeled War Plan Orange. Following the World War, the United States, Britain, France, Italy, and Japan agreed to a series of treaties—the Washington Naval Treaty in 1922 and the London Naval Treaty in 1930—that quantitatively and qualitatively limited their naval fleets. The treaties assured the US Navy a meaningful margin of superiority over its expected foe, the Imperial Japanese Navy.

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[167] "War Trade Annex (Revised) to the Industrial Mobilization Plan (1939)."

[168] Connery, 39.

All versions of the Orange plans shared a basic theory of victory.[169] After the Japanese provoked a war by attacking the Philippines, the US Fleet would advance into the western Pacific to engage the Japanese fleet in a single decisive battle that would be decided in a climactic gun duel between opposing lines of heavily armed and armored battleships. According to contemporary assumptions about naval combat, the treaty-mandated numerical superiority of the American Battle Fleet would reasonably assure victory. By defeating the Japanese battle fleet, the Navy would control the sea, allowing the fleet's numerous smaller warships to blockade Japan itself.[170]

The Orange plans also shared other basic assumptions that affected the Navy's views on procurement and industrial mobilization planning. First, the Fleet's battleships would be the ultimate arbiter of the campaign. Second, the war would be fought with the Fleet as it existed under the constraints of the naval treaties. Third, the scope of the war would be limited to a single military campaign, limited in geographic scope and in the number of belligerents. Finally, even in the versions of the plan that envisioned a slower, incremental advance based on seizing and establishing a series of forward bases across the central Pacific's many island groups, the decisive battle would take place well before any new battleships could be constructed and added to either the American or Japanese Fleets. For example, the last battleships built for the US Navy before the 1922 Washington Naval Treaty halted any further battleship construction—three ships of the Colorado class built between 1917 and 1923—took an average of just over four years to construct and equip each ship. The first post-Treaty battleships—the two ships of the North

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[169] Edward S. Miller, *War Plan Orange: The U.S. Strategy to Defeat Japan, 1897–1945* (Annapolis, MD: Naval Institute Press, 1991), *passim*.

[170] David C. Evans and Mark R. Peattie, *Kaigun: Strategy, Tactics, and Technology in the Imperial Japanese Navy, 1887–1941* (Annapolis, MD: Naval Institute Press, 1997), *passim*.

Carolina class built between 1937 and 1942—took an average of 43 months to construct and equip.[171]

The significance of these assumptions was that, unlike the Army, the Navy was not dependent on industrial mobilization to fight and win its hypothetical war. In fact, the Navy believed it would fight and win its war before the ground force envisioned in the General Mobilization Plan—essentially a clone of the American Expeditionary Force from World War I—would be ready to take the field.

Until the summer of 1930, the Navy had been genuinely uninterested in industrial mobilization planning. That summer, the Navy agreed to begin coordinating procurement planning and participating in the allocation of industrial facilities.[172] Thereafter, spurred on by growing public and congressional attention and institutional competition with the Army, the Navy began to contribute to industrial mobilization planning tepidly. Beginning with the 1933 revision, the Industrial Mobilization Plans included an increasingly prominent role for the revitalized joint Army and Navy Munitions Board. However, the OASW was always in the lead and continued to perform the majority of supporting staff work.[173]

These mobilization planners aimed to address three unresolved issues from the previous world war related to the strategic tests of feasibility, suitability, and acceptability. The first issue was feasibility. In deploying the Army Expeditionary Force to France, Army planners had not been constrained by the feasibility of meeting the requirements for munitions, equipment, and supplies from the limited resources and productive capabilities of American industry. As a result,

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[171] Norman Friedman, *US Battleships: An Illustrated Design History* (Annapolis, MD: Naval Institute Press, 1985), 420–21.

[172] Thatcher, 46.

[173] Koistinen, *Planning War*, 36. Connery, 38.

the Army manned and deployed a field force of about two million men and an overall Army more than a year before it could be fully equipped in 1919 from American production.

By the end of 1925, staff officers in the OASW Planning Division had conducted enough studies and manufacturing plant surveys to determine that American industry could not meet the requirements of a general mobilization plan. [174] However, General Charles Summerall, the Army Chief of Staff from November 1926 until November 1930, rejected the idea that material constraints affected the feasibility of the war plans prepared by his General Staff.[175] During his tenure, Summerall impeded the systematic study of national economic mobilization, including the study of wartime trade and requirements for strategic raw materials, by OASW planners. This also impaired planning for economic warfare, which was closely linked to the problems of wartime trade and securing resources.

When MacArthur replaced Summerall as chief of staff at the end of 1930, he reoriented the General Staff to subject its war planning to feasibility testing in collaboration with the OASW Planning Division. He insisted that plans "must be supported by carefully devised procurement plans, and by programs for mobilizing the industrial resources of the Nation.... This whole coordinating process is one of the most important features of war planning." The Army General Mobilization plans prepared under MacArthur's successor, General Malin Craig, in the mid-1930s finally achieved a realistic balance between manpower and economic mobilization.[176] For the first time in its peacetime history, plans for complete and realistic mobilization were made. These plans emerged from the concept of "feasibility," which held that the size of the

[174] Kreidberg and Henry, 413.

[175] Koistinen, *Planning War*, 47.

[176] Ibid., 76.

armed forces could only grow at a rate matching the economy's productive capacity. Otherwise, economic stability would be undermined, threatening the war effort. MacArthur's focus on the economic basis of military power facilitated planning for future economic warfare as an adjunct to national economic planning.

The second unresolved issue the Army faced was how to create and staff a wartime organizational structure that prioritized and sequenced the requirements necessary to support a strategic concept. This would enable strategic leaders to conduct the desired campaigns in line with the overarching theory of victory. A post-war industrial college text encapsulated their concern: "[M]odern war has become a contest also between the government institutions, the organizational systems, and the administrative techniques and procedures necessary to mobilize the economic resources of the nation for war. In fact, in the science and practice of modern war, a sound economic principle or a new and effective administrative practice may be fully as important as, or even of greater importance than, a new weapon or the outcome of a major combat action."[177]

The OASW planners were worried that, in a future war, civilian mobilizers might either deliberately or unknowingly sacrifice military effectiveness for financial efficiency. This could lead to vast quantities of munitions being delivered too late or of the wrong types needed by the Army, as had occurred in 1919. To secure the resources required for the AEF to fight the anticipated 1919 campaign necessary for victory, the Army General Staff allied with civilian

[177] Industrial College of the Armed Forces (ICAF), *Economics of National Security,* vol. 1*: The Nature of Economic Mobilization* (Washington, DC: Industrial College of the Armed Forces, 1950), 4.

economic mobilizers like Baruch against the ineffective Army supply bureaus. However, their alliance was fraught with conflict over the distribution of limited resources.[178]

The OASW had its own industrial experts in Army Industrial College-trained officers. They believed that "uniformed experts manning key positions" could initiate effective mobilization. Once the War Department had established a smooth operation, it could then bring businessmen into its organization to relieve the officers. This was reflected in the role of a revitalized Army and Navy Munitions Board, which served as the transitional control agency until civilian superagencies were established.[179]

The third problem was how to share the burdens of war among societal groups in a manner that kept costs within the limits of public and political acceptability.[180] The War Industries Board, War Trade Board, and other wartime economic superagencies implemented coercive economic controls that alienated both business and labor, contributing to a post-war backlash against the military and its industrial partners. Economic mobilization planners working during the interwar period assumed that mobilization would draft four million men into the Army while halving the production of consumer goods and redirecting capital and labor to double the existing industrial base.

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[178] Terrence J. Gough, "Origins of the Army Industrial College: Military-Business Tensions After World War I," *Armed Forces & Society* 17, no. 2 (Winter 1991): 260–66. Gough provides a revisionist assessment of the military-industrial complex. He argued "That they [the military] had deep misgivings about working with businessmen demonstrates the need to recast interpretations of pre-World War II military-industrial connections."

[179] Gough, 264.

[180] Irish, 47.

The Industrial Mobilization Plans reflect successive groups of officers grappling with the challenges of conducting total war while preserving American democracy and freedoms.[181] They stated, "It is conceivable that a war might be conducted with such great regard for individual justice and administrative efficiency as to make impossible those evils whose existence in past wars is well known. It is also conceivable that the outcome of a war so conducted might be defeat. In all plans for preparedness and policies to be pursued in the event of war, it must never be overlooked that while efficiency in war is desirable, effectiveness is mandatory."[182]

These officers emphasized that controls would be temporary. "The controls and functions under discussion are not and should not be exercised in peace," they asserted, adding that "the emergency organization would automatically terminate after the war." They affirmed that the system of economic controls would remain under the authority of elected civilian leaders. "Control of industry in war is a function of the President acting under the authority accorded him by the Constitution, by Congress, and by public opinion."[183]

Accordingly, "Plans must be practical rather than theoretical. In the interests of national morale, they must operate justly and distribute war's burdens as equitably as possible."[184] The planners recognized the need to control corporate profits, intending to cap them at six percent. They aimed to limit and distribute costs by creating an equitable taxation structure based on wealth distribution, as well as stabilizing prices and controlling inflation. They rejected labor conscription for industry and planned to ensure full employment with fair treatment of

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[181] The first Industrial Mobilization Plan, completed in 1931, was updated three times: in 1933, 1936, and 1939-1940.

[182] War Department, *Industrial Mobilization Plan, Revised 1933*, v.

[183] Ibid., 13.

[184] Ibid.

workers.[185] Ironically, the Army's plans for mobilizing industry were more favorable to labor and more constraining on business profits than those implemented by President Roosevelt, the champion of the New Deal.[186]

IV. President Franklin D. Roosevelt and the White House

At the outbreak of war in September 1939, the United States government was not prepared to conduct a large-scale war effectively. The American experience in World War I offered Roosevelt two competing models for conducting the war. The first model was for the President to conduct the war through his Cabinet and the existing federal departments and agencies. President Woodrow Wilson established a National Defense Council in 1916 composed of the secretaries of the military and economic departments: War, Navy, Commerce, Labor, Agriculture, and Interior. This war cabinet was responsible "for the coordination of industries and resources for the national security and welfare" of the country.[187] The Council was supported by a seven-person National Defense Advisory Council composed of industry experts who were authorized to create their own subordinate organizations to assist the Council. Congress authorized the two-tier NDC-NDAC in a section of the Army Appropriations Act of 1916, which was written by the executive branch and passed without modification. The system was flexible; its scope of operation could be easily expanded or restricted, and it could be easily disbanded.[188]

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[185] Irish, 47-50.

[186] Alan L. Gropman, *Mobilizing U.S. Industry in World War II*, McNair Paper 50 (Washington, DC: Institute for National Strategic Studies, 1996), 6. Gropman notes that "Labor was generally discontented during the war, and there were numerous strikes." Corporate wartime profits increased by up to 120 percent, after taxes, while inflation-adjusted, after-tax wages increased by only 20 percent."

[187] Paul A. C. Koistinen, *Mobilizing for Modern War: The Political Economy of American Warfare, 1865–1919* (Lawrence: University Press of Kansas, 1997), 158.

[188] Ibid., 157-164.

The second model for conducting the war involved temporary superagencies modeled after the War Industries Board and the War Trade Board, functioning as a shadow government—an "invisible but virtually undefinable (or partial) state" tailored to meet wartime emergencies.[189] The appointed directors of these boards, drawn from the top ranks of industry and finance, would operate with significant freedom under the authority granted to the President, though not necessarily under his direction. The most significant and controversial of these new agencies was the War Industries Board (WIB), directed by Bernard Baruch, a politically influential Wall Street speculator who had been a leader in preparing U.S. industry for war since 1914.[190]

Roosevelt had considered how to lead and organize the executive branch in wartime since shortly after his reelection in November 1936, when he discussed the strategic organization for World War I and critiqued the War Industries Board with Louis Brownlow, who was serving as chairman of the President's Committee on Administrative Management.[191] When Congress passed the Reorganization Act at the end of April 1939, it significantly strengthened the President's role as the chief executive of the federal administration. The Act also provided the President with a more robust operational and planning staff in the new Executive Office of the President. The Bureau of Budget assumed the role of headquarters staff capable of developing plans for expanding the administrative reach of the White House through the Office of Emergency Management (OEM), which could be activated in case of emergency.

The core problem addressed by the Army's Industrial Mobilization Plans was how to organize the government for effective national industrial mobilization. As a top national leader

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[189] Ibid., 155.

[190] Ibid., 167.

[191] Blum, 79. Also known as the “Brownlow Committee.”

and director of grand strategy, Roosevelt was responsible for integrating all aspects of national power. Maxwell's summons to the White House indicated an ongoing restructuring of the executive branch by Roosevelt to facilitate his expanding role in developing and directing American, and later Allied, grand strategy. The President, assisted by the Bureau of Budget—now acting as a headquarters commandant for the growing Washington Command Post—and a small group of lieutenants and aides, developed a government task organization to support him in planning, directing, and supervising the conduct of the war using the full spectrum of national power. Although the complete system would not be established until later in the war, key features of its ultimate form began to emerge during the emergency of May and June 1940.

Roosevelt operated through circles of lieutenants and aides who occupied positions of varying proximity to the President. Among these, Harry Hopkins was the closest. As part of a small inner circle with the greatest access to Roosevelt's thoughts, he was best equipped to carry out the President's vision with minimal formal guidance. Hopkins was viewed as the "perfect staff officer" for Roosevelt, capable of understanding his mind and executing his intentions with little supervision. Additionally, he was a capable grand strategist. Robert Sherwood, the President's speechwriter and later biographer of the relationship between Roosevelt and Hopkins, noted,

> There are many military men... who came into contact with Hopkins for the first time in 1941, and all of those to whom I have talked have said substantially the same thing: knowing him only as one of those New Deal 'visionaries' (i.e., crackpots), they had been rather dubious of his ability to understand purely military problems but, when they talked with him, were amazed at his grasp of the essentials of grand strategy.[192]

[192] Robert E. Sherwood, *Roosevelt and Hopkins: An Intimate History* (New York: Harper & Brothers, 1948), 11–12.

Roosevelt directed much of the diplomatic, military, and economic aspects of his grand strategy through Hopkins. Hopkins served as Roosevelt's personal emissary to British Prime Minister Winston Churchill and Soviet leader Joseph Stalin during some of the war's most critical diplomatic missions. He represented Roosevelt on the military Joint Board (later the Joint Chiefs of Staff) until relieved of the role by Admiral William D. Leahy in July 1942.[193]

When Maxwell met with him in June 1940, Hopkins was in the final months of his tenure as Roosevelt's Secretary of Commerce. Over the previous 18 months, Hopkins had leveraged his position to build critical relationships with prominent businessmen and industrialists who were assuming important roles in the developing organizational structure for national economic mobilization, including Averell Harriman of Union Pacific Railroad, Robert Wood and Donald Nelson from Sears Roebuck, William Batt from SKF, and his future replacement, Jesse Jones. According to Sherwood, "They came to be known, among less friendly businessmen and also among inveterate New Dealers, as 'Hopkins' tame millionaires.'"[194]

Edward Stettinius, Jr., chairman of the board for U.S. Steel, was one of these influential figures. The previous August, Roosevelt had personally appointed Stettinius to lead a temporary War Resources Board to recommend revisions to the 1939 Industrial Mobilization Plan.[195] Koistinen assesses that "Stettinius was a spokesman for a sector of large corporate America that

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[193] Robert E. Sherwood, ed., *The White House Papers of Harry L. Hopkins*, Vol. 1, September 1939–January 1942 (London: Eyre & Spottiswoode, 1948), 98–99. Sherwood wrote, "After he became Secretary of State, Marshall told me that he believed that his appointment as Chief of Staff in 1939 had been primarily due to Harry Hopkins. 9 It was Marshall's impression that Roosevelt did not develop complete confidence in him until after the war had actually started. For three years before Pearl Harbor, and for at least a year thereafter, Hopkins was Marshall's principal channel of communications with the White House."

[194] Ibid., 109.

[195] Ibid.

was not avidly and vocally anti-New Deal and that showed some signs of flexibility in areas such as labor relations," and that "the President understood that the vast corporate community had to be the foundation for any mobilization system."[196] Stettinius would ascend through positions of greater responsibility and proximity to Roosevelt throughout the war.

Many historians of Roosevelt's wartime leadership have criticized his approach to wartime organization and executive management, characterizing it as chaotic, confusing, inefficient, improvident, and spontaneous.[197] One presidential historian described Roosevelt's administrative approach as "competitive adhocracy." However, when evaluated against Lykke's strategic framework, Roosevelt's approach appears logical, incremental, and strategically effective.[198]

The President served both as the grand strategic leader—initially of the United States and later of a global alliance—and as the political leader of the country. His primary tasks as grand strategic leader were to set national objectives (the strategic ends) and manage strategic risk by balancing those ends with the available ways and resources, selecting suitable and feasible campaigns to achieve those ends while coordinating all aspects of national power.

According to the 1925 Naval War College text *Sound Military Decision*, "The consequences as to costs, always important considerations in dealing with human problems, are

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[196] Paul A. C. Koistinen, *Arsenal of Freedom: The Political Economy of American Warfare, 1940-1945* (Lawrence, KS: University Press of Kansas, 2004), 106. Koistinen, *Planning War*, 447. Stettinius was the only member of the board appointed by the President.

[197] Mark A. Stoler, "A Half Century of Conflict: Interpretations of U.S. World War II Diplomacy," Diplomatic History 18, no. 3 (Summer 1994): 375–403.

[198] Matthew J. Dickinson, *Bitter Harvest: FDR, Presidential Power and the Growth of the Presidential Branch* (Cambridge: Cambridge University Press, 1997), 204.

frequently the paramount determinant."[199] As the political leader, Roosevelt's primary strategic function was to manage the acceptability of the national grand strategy by ensuring that the costs of implementing it did not exceed what core constituent social and political groups were willing to pay to achieve the selected strategic objectives. For Roosevelt, these core constituents included Congress, with its power to appropriate national resources and delegate necessary legal authority through new legislation; the American electorate, with its sectional and socio-economic factions; and the national political parties, which acted as intermediaries between the electorate and the elected.

One of Roosevelt's fundamental challenges was uncertainty about whether the level of costs was acceptable. This uncertainty constrained his freedom of action as the grand strategic leader and resulted in a cautious, incremental initial approach to strategy development that often obscured his selection of objectives and supporting campaigns. These constraints applied to economic warfare because many economic warfare measures could potentially harm one's own economy as well as the enemy's. This frequently frustrated his subordinates, who had to develop supporting concepts based on assumptions about national objectives. For example, in late 1939, the Army chief of plans, Brigadier General George Strong, implored the President to "express a policy for the staff planners rather than to let them infer one" while developing several "Rainbow" war plans, but Roosevelt declined to respond.[200] Robert Dallek argues,

> First, that Roosevelt's indirection forestalled a head-on clash with the Congress and majority opinion, which would have weakened his ability to lead before and after Pearl Harbor; and, second, that for all his willingness to deceive the public in the interest of

[199] Naval War College, *Sound Military Decision*, 31.

[200] Kreidberg and Henry, 558.

> persuading it to go to war, he never lost sight of the fact that a national commitment to fight required events beyond his control to arrange. Indeed, what seems most striking in this period was not Roosevelt's arbitrariness in pushing the country toward war, but rather his caution and restraint.... He refused to ask for a declaration of war until a genuine provocation from abroad made the nation ready to fight.[201]

Dallek believes that Roosevelt's "appreciation that effective action abroad required a reliable consensus at home and his use of dramatic events overseas to win national backing from a divided country for a series of pro-Allied steps were among the great presidential achievements of this century."[202]

As tensions in Europe increased during the summer, Roosevelt made a major, yet often overlooked, move to consolidate control over national strategy, redefining the President's role as Commander-in-Chief. In World War I, President Wilson exercised his command authority through his respective service secretaries: Newton Baker at War and Josephus Daniels at Navy. On July 1, Roosevelt transferred the Joint Board and the Army and Navy Munitions Board from the Departments of War and State and ordered that these two highest-level strategy organizations would "hereafter exercise their functions...under the direction of the President as Commander-in-Chief of the Army and Navy of the United States."[203] The Joint Board conducted the strategic function of developing suitable military concepts (ways) for achieving objectives set by the President (ends), while the ANMB performed the strategic function of determining or enabling

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[201] Dallek, 521.

[202] Ibid., 530.

[203] Thatcher, 128-129.

the feasibility of those concepts by managing the development and procurement of the national resources (means) needed to support the Joint Board's requirements.

The next step towards establishing the White House as a functioning grand strategic command post occurred with the German invasion of Poland in September 1939. After proclaiming a state of national emergency on September 8, Roosevelt issued an executive order restructuring the Executive Office of the President. He noted that in time of war it had "always been found necessary to establish administrative machinery in addition to that required for the normal work of Government. Set up in a time of stress, these special facilities sometimes have worked at cross purposes both within themselves and with the regular departments and agencies. In order that the nation may not again be caught unaware, adequate resources for management should be provided in advance of such periods of emergency." The reorganization and the September 8 executive order established the legal basis for Roosevelt to create his own strategic organization outside the frameworks of either the National Defense Council/Wartime Cabinet or the Industrial Mobilization Plan superagency models.[204]

In August 1939, when a European war appeared likely, Roosevelt authorized Johnson to establish a War Resources Board composed of prominent businessmen and industrial leaders to advise the OASW as it prepared the 1939 Industrial Mobilization Plan. Roosevelt appointed Stettinius as the head of the seven-person board, also known as the "Stettinius Board."[205]

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[204] Industrial College of the Armed Forces (ICAF), *Emergency Management of the National Economy*, vol. 19: *Administration of Mobilization WW2* (Washington, DC: Industrial College of the Armed Forces, 1954) 10.

[205] ICAF, *Administration of Mobilization*, 12. The other members of the board were Karl T. Compton, president of the Massachusetts Institute of Technology; Walter S. Gifford, president of American Telephone and Telegraph Company; Harold G. Moulton, president of the Brookings Institution; John Lee Pratt, director of General Motors Corporation; Robert E. Wood, chairman of Sears Roebuck and Company; and John Hancock. Colonel Harry K. Rutherford, director of the OASW Planning Branch, was appointed as the Board's Secretary.

Working with the advice of the WRB, the OASW made three significant changes from the 1936 version in their new 1939 revision of the IMP. As the planners of earlier versions of the plan had expected, as the possibility of war increased, the new revision of the plan include much greater detail about how the United States could engage in a global campaign of economic warfare against the Axis powers. These included plans for conducting economic warfare while still at peace as a non-belligerent.

First, the new IMP provided for a gradual mobilization timeline, allowing for the phased implementation of economic controls and the superagencies to manage them as foreign events and, more importantly, public opinion permitted. Early plans had been based on the assumption that a degree of strategic clarity would exist, in contrast to the prevailing uncertainty that characterized strategic decision-making in 1939. Second, due to the gradual implementation of mobilization measures, the Army and Navy Munitions Board would need to perform its role in the initial implementation and management of control measures during a longer transition period than previously anticipated in earlier versions of the plan.[206] While the military services wanted to oversee the initial implementation of controls and maintain sufficient influence in the proposed superagencies to ensure resource prioritization for the capabilities necessary to support their strategic concepts, "contrary to many popular notions at the time, the Army had no desire to run the economic mobilization agencies in case of war."[207]

Third, the plan strengthened the position of the head of the proposed core superagency, the War Resources Administration. The Administrator of War Resources would supervise the

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[206] War Department, *Industrial Mobilization Plan, Revised 1939*. 6, 13-17.

[207] Harold Stein, "Editorial Comments," in *American Civil-Military Decisions: A Book of Case Studies*, ed. Harold Stein (Tuscaloosa, AL: University of Alabama Press, 1963), 96.

other mobilization superagencies and oversee an advisory council composed of the chiefs of the other agencies and the AMNB. The Administrator would have greater authority than what was delegated to the War Industries Board under Baruch.[208] A post-war Industrial College text noted that "the delegation of such enormous powers would have made it difficult for the President to control the broad strategy of defense preparation and foreign economic policy during a most critical period."[209] This elevation of the Administrator irritated Roosevelt, who quipped, "What do they think they are doing, setting up a second government?"[210] He complained that those "fellows" on the WRB were asking him to "abdicate."[211]

> Blum concluded, "It is doubtful that the President had read the 1939 IMP, but there is no doubt that he was familiar with the tenor of its recommendations and, as he made clear to Brownlow, unalterably opposed them. Above all, he was determined not to accept a plan under which the War Resources Administration would control and stand between the President and the agencies administering such critical and varied agencies administering such critical and varied activities as labor, prices, and public relations."*[212]*

Publicity surrounding the War Resources Board revived years of public criticism of the IMP, much of which was unsubstantiated or exaggerated.[213] New Dealers were strongly opposed to the WRB, believing it conspired with military and business interests to wrest control of the

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[208] The Administrator of War Resources would also be connected to a proposed Public Relations Administration and the Selective Service Administration in an advisory capacity. The War Resources Administration would directly manage industrial facilities, commodities, power and fuel, and transportation.

[209] ICAF, *Administration of Mobilization*, 19.

[210] Koistinen, *Arsenal of World War II*, 34.

[211] Ibid., 34.

[212] Blum, 80.

[213] Thatcher, 258.

economy from the President.[214] The American League Against War and Fascism, which was co-founded by the Communist Party, published tracts denouncing the IMP as "A Blueprint for Fascism," claiming, "Under this plan, all the features of the fascist states of Italy and Germany would be incorporated into the life of this country."[215] Additional criticism focused on Baruch's long involvement with the plans. His tenure as chief of the War Industries Board was "associated in the popular mind with the highly coercive policies toward both industry and labor." He became a lightning rod for criticism from New Dealers, isolationists, and labor interests alike.[216]

As Stein noted, "Large-scale industrial mobilization requires broad acceptance of the war and willing and broad participation in war mobilization by the vast majority of the nation's citizens. Such participation would have been hard to secure with the Army's planning techniques and under its plans."[217] The Bureau of Budget assessed that, in a "time of crisis when tempers run high and the public mind is divided," the WRB and the military's mobilization planners "failed to satisfy a President who was at least as sensitive to public acceptance as he was to administrative imperatives."[218]

The WRB completed its work in November and submitted its recommendations, which the President promptly classified. With Poland's capitulation in early October and no further significant escalation of the fighting between Germany and the Anglo-French alliance, the crisis

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[214] Koistinen, *Arsenal of World War II*, 33.

[215] Thatcher, 257.

[216] Ibid., 254.

[217] Stein, 96.

[218] Blum, 89.

of September faded. The President took no further action on economic mobilization until German forces breached Anglo-French defensive lines the following May.[219]

On May 25, the President established the Office of Emergency Management. Two days later, he declared a limited national emergency. This official declaration unlocked additional executive authority originally delegated to Wilson in the National Defense Act of 1916. Using this emergency authority, Roosevelt re-established the National Defense Council and the Advisory Commission to the Council of National Defense, also known as the National Defense Advisory Commission (NDAC). In reality, the Council of National Defense, composed of the Secretaries of War, Navy, Interior, Agriculture, Commerce, and Labor, existed only on paper, as its members never convened or acted in their capacity as a Council.

Roosevelt appointed seven members to the NDAC, as mandated by legislation, to oversee specific economic functions. The members included both industrialists and New Dealers:

Industrial Production: William S. Knudsen, president of General Motors Corporation

Industrial Materials: Edward R. Stettinius, Jr., Chairman of United States Steel Corporation

Employment: Sidney Hillman, president of the Amalgamated Clothing Workers of America

Price Control: Leon Henderson, economist at the Securities and Exchange Commission

Farm Products: Chester C. Davis, former administrator of the Agricultural Adjustment Administration

Transportation: Ralph Budd, president of the Chicago, Burlington and Quincy Railroad

[219] Blum, 87.

Consumer Interests: Harriet Elliott, political scientist at the University of North Carolina

Roosevelt's decision to establish the NDAC as his organizational vehicle for managing national mobilization was driven more by what was feasible at the moment rather than what might be possible later. This decision allowed him to avoid seeking additional Congressional authorization at a time when he had more pressing legislation awaiting consideration. At this stage of national mobilization, only the industrial production and industrial materials sections were deemed important.[220]

As the National Defense Council was not yet functioning, Roosevelt's NDAC assumed a more administrative role than the World War I commission. In June, Roosevelt appointed Donald Nelson, then vice president of Sears, Roebuck and Company, to the commission as the Coordinator of National Defense Purchases. Nelson informally took on the role of the commission's chairman, while the Army and Navy Munitions Board retained significant representation within the NDAC staff.

Koistinen summarizes the President's NDAC selections: "This outcome contained a larger and enormously important truth: the conservative military was much more significant in determining how the economy was mobilized for World War II than were the civilians of the liberal, New Deal state."[221] Roosevelt's decision to designate export control as "essentially a military function" and to appoint Maxwell, an Army officer closely affiliated with the OASW, ANMB, and mobilization planning, to administer export controls was consistent with this assessment.

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[220] ICAF, *Administration of Mobilization*, 18-19.

[221] Koistinen, *Arsenal of World War II*, 54.

For the men and women surrounding the President during the May 1940 emergency, there was considerable uncertainty regarding how Roosevelt would organize the government and allocate critical tasks and core strategic functions to plan, direct, and supervise his emerging grand strategy. The President had several options. The Treasury Department's Customs agents would enforce export controls, while the State Department had an existing licensing agency in its Division of Controls and a recognized role in overseeing the foreign relations aspects of export control. The 1939 IMP proposed that the Army and Navy Munitions Board, through its War Trade Section, exercise control until public support conditions allowed for the establishment of a full War Trade Administration.

Unsurprisingly, it was Hopkins who proposed the solution that Roosevelt ultimately chose: the Army-led Office of the Administrator of Export Control (AEC). By designating export control as a military function, the President clearly linked potentially unpopular economic controls with popular defense measures. As the officers at the Army Industrial College, who prepared the recently revised War Trade Annex to the 1939 IMP, observed, "Public sentiment will probably support any reasonable measures for increasing our national defense."[222]

The authors of the WTA also pointed out that the consequences of enforcing wartime controls could limit the post-war effectiveness of established agencies. This was a significant concern for some senior members of the State Department, including Assistant Secretary Adolf Berle, who cited the Army's argument in recommending against assigning his department the responsibility for export control.[223]

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[222] War Department, *Industrial Mobilization Plan, Revised 1939*, 19.

[223] "War Trade Annex (Revised) to the Industrial Mobilization Plan (1939)," 5.

Under Hopkins's plan, which appears to have aligned with the IMP, Maxwell and the AEC would be closely connected with Stettinius on the NDAC. This arrangement would allow Roosevelt to oversee the AEC either directly, as Maxwell nominally reported to the President, or indirectly through Hopkins acting via Stettinius. Similar to the consolidation of the military's Joint Board and ANMB and the formation of the NDAC under White House control, Hopkins's plan consolidated direct Presidential control over the pressing strategic tasks of conserving raw materials essential for mobilizing industry, providing material support to Great Britain, and limiting the material resources—and productive potential—of the Axis war economies.

Koistinen offers the following analysis of Roosevelt's decisions during the early emergency phase:

> *The War Resources Board episode is richly significant in a number of ways. Despite the outcome, Roosevelt's appointment of the board and its membership signaled that during hostilities, the president would embrace a modified version of the World War I model for mobilizing the economy. He was fully aware that an industry-military mobilization team was essential for harnessing the economy for war.... Mobilizing the economy for World War II proceeded essentially along the lines of the Industrial Mobilization Plan.*[224]

Military officers attending the Army Industrial College in the spring of 1941 believed that Roosevelt was essentially implementing the IMP. "While the agencies are not strictly in accordance with those planned, the principles of the IMP appear to be in the process of being executed."[225] To them, the Office of Production Management (OPM), formed from several

[224] Koistinen, *Planning War*, 455.

[225] Thatcher, 303.

sections of the NDAC, resembled a nascent War Resources Administration, while Maxwell's AEC appeared to be a proto-War Trade Administration.

This appearance was more than superficial; however, as Blum emphasized, the crucial difference lay in Roosevelt's consolidation of all strategic functions under his personal control.

> What Baruch wanted, and what the WRB and the Army planners wanted, was to have our economic mobilizations handled by a newly created agency with tremendous powers. What Roosevelt wanted, as he made clear to the NDAC, was to be boss. Though it is true that the complex evolution of agencies to handle economic mobilization from the NDAC clear down to the end of the war did pass through stages that were reminiscent of the IMP, there were significant variations. One variation stands out: all roads led to the White House, not to a War Resources Administrator.[226]

To assess Maxwell and his Administration of Export Control, it is essential first to understand that Maxwell believed his task was to prepare for and execute the mission of the War Trade Administration largely within the parameters of the War Trade Annex of the 1939 Industrial Mobilization Plan. Second, Maxwell viewed himself as directly responsible to the President and believed he was implementing the President's grand strategy, which relied on providing substantial economic support to Great Britain and the British Commonwealth, as well as conducting an effective economic warfare campaign against the Axis. Finally, as outlined in the War Trade Annex, Maxwell recognized the need to maintain the acceptability of the President's strategy by masking the true purpose of these actions, publicly justifying them "on grounds unrelated to the real purpose of the action."[227]

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[226] Blum, 89.

[227] "War Trade Annex (Revised) to the Industrial Mobilization Plan (1939)," 19.

In later years, the Administration would face criticism that organizational changes to better manage the national war economy and more effectively implement controls generally lagged behind the need.[228] This was probably true of most strategic functions. But even Roosevelt was not clairvoyant enough to discern the exact boundaries of public acceptability, and he tended to err towards protecting his political and public support. "[R]ight or wrong, Roosevelt's decisions were very much his own and were based on a definable rationale."[229]

Using the authority of the Reorganization Act, Roosevelt transformed the presidency into an unprecedented center of strategic control. He established an organizational framework that allowed him to direct and coordinate all aspects of national power—military, economic, diplomatic, psychological, and informational—towards achieving national objectives. He created new organizations to manage the acceptability, feasibility, and suitability of his grand strategy. Among these, the NDAC and AEC would evolve into superagencies that IMP planners would have immediately recognized. By maintaining personal control over core strategic organizations or assigning trusted lieutenants to oversee these functions, he was able to develop and implement supporting campaigns for objectives he often refrained from publicly elucidating until their political acceptability was assured. As wartime events and his Administration's efforts to persuade both the public and other political leaders increased Americans' willingness to accept

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[228] Bureau of Budget, 374-376. In its history of wartime administration, the Bureau of Budget was sensitive to criticisms that national mobilization might have proceeded more effectively and efficiently if the President had fully implemented the Industrial Mobilization and done so at an earlier date. A main theme of their history is a polemic response to that criticism that argues the IMP was not an acceptable plan and that the military officers charged with carrying it out simply did not have the mental abilities necessary for such complex task—mental abilities, they also pointed out, were had in abundance among the New Deal ideologues already within the Administration (and who made up the Bureaus senior staff). Any examination of the historiography of national mobilization and the American war economy that addresses the legacy of the IMP should be filtered through this early post-war debate.

[229] Stein, 96.

the higher costs of his strategic aims, he increasingly delegated the direction of these strategic functions to his lieutenants, leading larger and more capable wartime administrative agencies. By necessity, his organizational design sacrificed efficiency for acceptability.

Chapter 4 - Creation of Administration of Export Control

I. Introduction

Lieutenant Colonel Russel Lamont Maxwell "was by past association peculiarly fitted to assume the role assigned to him by the President."[230] Maxwell began his Army career at West Point in 1908. As a cadet, he earned the sobriquet "Lover." His classmates memorialized him in the Academy's yearbook, *The Howitzer*, as "the hero of many a flirtation picnic and Cullum balcony tete-a-tete."[231] At that time, Cullum Hall, with its ballroom and balcony overlooking the scenic Hudson River, was the social center of the Academy. After graduating with the Class of 1912, Maxwell was commissioned as a second lieutenant into the Field Artillery Branch but transferred to the Ordnance Branch in 1915, where he spent several assignments overseeing the development and procurement of artillery systems and ammunition.

During World War I, he ascended to the temporary rank of Lieutenant Colonel. However, he did not serve in Europe until after the war, when he spent two years as the Chief of Ordnance for the US Army Expeditionary Force in Europe. He returned from Europe at his pre-war rank of Captain to command the Picatinny Arsenal in New Jersey (a center for interwar research and development of artillery ammunition and explosives). He was one of the first officers to attend the Army Industrial College, graduating with the third class in July 1925. He served in several staff assignments in the office of the Chief of the Ordnance Branch, including three years as the chief of the ammunition, artillery, and automotive division—one of the most important positions within the branch. He was one of a relatively small number of officers (less than one hundred) who attended both the Army Industrial College and the Army War College, from which he

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[230] "*An Historical Record of Export Control*," 6.

[231] *The Howitzer*, 1912 (West Point, NY: United States Military Academy, 1912), 110.

graduated in 1934. He was then promoted to lieutenant colonel and served as the Chief of Ordnance for the Army Air Corps until the end of 1938.[232] Through the first half 1939 he served in the Office of the Assistant Secretary of War (OASW) where he worked as a special assistant to Louis Johnson and as a member of the Executive Committee of the Army and Navy Munitions Board, where he would have gained familiarity with the early revisions with 1939 Industrial Mobilization Plans, the current prospects for munitions production, as well as with the supply of strategic raw materials.

In July, he moved to the General Staff and became the Chief of Planning and Equipment in the G-4 (Logistics) Division, where he would have participated in the development of the "Rainbow" war plans. He had nearly completed his first year on the General Staff when he was summoned to the White House by the President's secretary, General "Pa" Watson, to receive his new assignment as the Administrator of Export Control.[233] Maxwell described his first day: "I I was to report to the White House for duty, so I went over on the morning of the 13th and got all the instructions that I ever received on the subject."[234]

Watson gave Maxwell a copy of an order, signed by Roosevelt, appointing him as Administrator to carry out the provisions of Section 6 of the National Defense Act (HR 9850) "to prohibit or curtail the exportation of any military equipment or munitions, or components thereof…." The legislation was passed on July 2, which gave Maxwell around 20 days to prepare. Watson also provided Maxwell with a memorandum, also signed by the President,

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[232] The Army air arm did not become the Army Air Forces until June 1941. At that time, it was known as General Headquarters (GHQ) Air Force.

[233] "Maxwell, Russell Lamont," in *The National Cyclopaedia of American Biography*, vol. F, 1939–1942 (New York: James T. White & Company, 1942), 514–15.

[234] "Conference with Major General R.L. Maxwell, Formerly Administrator of Export Control."

addressed to several of the cabinet secretaries advising them of his appointment and directing them to cooperate with and assist the new administrator.[235]

Maxwell described the Act. “It is quite obvious that the purpose of the act is conservation of defense material, to support the rearmament program of this country and the rearmament program of the British Empire."[236] Although not specified in legislation, and likely unknown to Congress, Maxwell was also being tasked to launch a campaign of economic warfare against the Axis. His biographical entry in The National Cyclopedia of American Biography published in 1942, offered a grossly oversimplified summary of his role as the first Administrator of Export Control: “As export control officer, he was responsible for keeping as much oil and scrap metal as possible out of the hands of the Axis nations.”[237] Maxwell later recalled:

Naturally, when I was given this assignment on the 13th of June last year in an informal way, I looked around for help. I had had the good fortune to be in the College some years back and I had some contact with the work that had been done. I was for a time in the War Department General Staff, engaged in planning and equipment work, so the first person I went to was General Rutherford, Chief of the Planning Branch of the Office of the Assistant Secretary of War, and asked him what I was supposed to do. He told me very briefly of his connections with the drafting of Section 6 of the bill then before Congress (HR 9650) and he turned over to me the War Trade Annex to the Industrial Mobilization Plan[238]

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[235] Ibid.

[236] “Export Control by Brigadier General R.L. Maxwell, USA, Administrator of Export Control.”

[237] “Maxwell, Russell Lamont,” in *The National Encyclopedia of American Biography*, 515

[238] “Export Control by Brigadier General R.L. Maxwell, USA, Administrator of Export Control.”

II. The War Trade Annex—the Foundational Document of American Economic Warfare

The War Trade Annex of the 1939 Industrial Mobilization Plan (IMP) was the foundational document of US economic warfare in World War II. It was the focal point of the American lessons learned in the First World War and the summary of two subsequent decades of study and planning by the AIC, OASW, and ANMB. It was the departure point for both the operational concept and organizational structure for the American economic warfare campaigns going forward.

When the OASW began revising the 1939 IMP with the assistance of the newly appointed War Resources Board in the fall of 1939, the Assistant Secretary of War Louis Johnson had assigned the preparation of several of the annexes, which were substantially longer and more detailed than those included with earlier versions of the plan, to the officers at the Army Industrial College. Unlike the three previous iterations of the Industrial Mobilization Plan, the annexes of the 1939 plan were classified secret and were not included in the public base plan. The annexes in previous versions had been relatively short, generally only a few pages. Each of the 1939 annexes was longer than the base plan. The War Trade Annex was the longest, with 95 pages including twelve appendices. As anticipated by the authors of the earlier plans, as the outlines of a future conflict became more visible, later planners would fill in much of the detail omitted or only vaguely referenced in earlier versions.[239]

The 1939 War Trade Annex, the final version of which was not completed and approved until April 1940, was prepared by the recently established Economic Warfare Section at the

[239] Thatcher, 277.

College. The annex detailed the mission, objectives, and tasks of the War Trade Administration superagency.

In the 1939 Industrial Mobilization Plan, the mobilization planners anticipated implementing four principal types of controls to coordinate a future war economy: priorities, price controls, organization of government corporations, and the control of foreign trade.[240] The War Trade Administration would be responsible for developing, implementing, and overseeing the control of wartime trade. According to the IMP, war trade consisted of "the regulation of imports and exports in such a fashion as best to further the economic interests of the United States and to damage those of the enemy."[241]

The planners derived both the objectives and organization of the WTA from the operations of the War Trade Board as it operated during the last year of World War I.[242] According to the plan, the WTA would regulate "imports and exports in such a fashion as best to further the economic interests of the United States and to damage those of the enemy…. The results obtained by this administration may materially affect the success of the military effort."[243]

The proposed WTA would have seven objectives: [244]

1. The obtainment of strategic and critical materials required for the war effort.

2. The conservation of all essential materials and supplies.

3. The conservation of ocean tonnage.

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[240] War Department, *Industrial Mobilization Plan, Revised 1939*, 3-4.

[241] Ibid.

[242] Idem., *Industrial Mobilization Plan, Revised 1933,* 29.

[243] Idem., *Industrial Mobilization Plan, Revised 1939*, 4.

[244] "War Trade Annex (Revised) to the Industrial Mobilization Plan (1939)," 2-3.

4. The economic strangulation of the enemy, particularly the denial to him of essential war materials (emphasis added).

5. The maintenance, in so far as surplus production will permit, of our foreign trade with neutrals without benefit, direct or indirect, to the enemy (emphasis added).

6. To the extent possible, the development of new and the enhancement of existing foreign markets.

7. The encouragement of non-belligerent nations to first, become active allies; second, to remain neutral, and/or finally, to favor the United States rather than the enemy in its trade relations (emphasis added).

Three of the objectives specified the agency's role in economic warfare. The introduction to the Annex emphasized the importance of economic warfare in possible war.

The time has long since passed when the outcome of wars was determined by the relative military prowess of men in the field. Modern war consists of the pitting of nation against nation or of one combination of nations against another combination., including the entire economic power of each nation or of each combination. Since every nation depends to a greater or lesser extent on its foreign trade for the supply of essential materials, some measure of control over this economic element is essential. Conversely, to the extent that such control can be thwarted and its trade disrupted, to that extent at least is the nation vulnerable.[245]

To achieve these objectives, the annex described several specific controls on foreign trade that the War Trade Administration could implement. [246] With the exception of preclusive

[245] Ibid., 3.

[246] Ibid., 29-30.

purchasing, all the controls listed had been implemented by the War Trade Board during the previous world war. These fifteen controls could be grouped into several categories.

Regulation to control the allocation and exchange of commodities:

- Control over importers and exporters through certificates of registration.
- Regulation of imports and exports through licensing.
- Establishment of priorities.

Control of Shipping:

- Establishment of bunker control.[247]
- Licensing of foreign vessels touching at ports under the jurisdiction of the United States.
- Acquisition of ocean tonnage by requisition, negotiation, or exercise of the right of angary.[248]
- Regulation of shipping through port and anchorage restrictions.

Agreements between the WTA and corporations, trade groups, and foreign nations over conditions under which trade can take place:

- The requirement of guarantees and other safeguards concerning price, use, etc.
- Cooperation with trade associations.
- Agreements with neutrals concerning use, etc., of materials imported from the United States.

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[247] The area in a ship where the fuel like coal or oil for the ship's engines is stored was called a bunker. Bunker control is the control through a licensing system of fuel and other types of supply. The WTA or licensing agency could control the use of shipping by limiting access to the fuel and supplies needed for voyages to approved purposes.

[248] Angary is "the right of belligerents to requisition for their use neutral merchant vessels, aircraft, and other means of transport that are within their territorial jurisdiction." www.britannica.com/topic/angary

- Use of trade agreements.
- The maintenance of the United States exchange in neutral countries.

Coercive measures to enforce agreements:

- Prohibition of trading with the enemy.
- Control of enemy property and other interests in the United States.

Preclusive purchasing of raw materials in foreign countries:

- Purchase of products of neutrals to deny same to the enemy.

The War Trade Administration would be organized along the same lines as the War Trade Board, with its sections organized into administration, information, and control divisions. The Administration Division corresponded with and provided similar services as the personnel (G-1) and supply (G-4) divisions on a military staff.

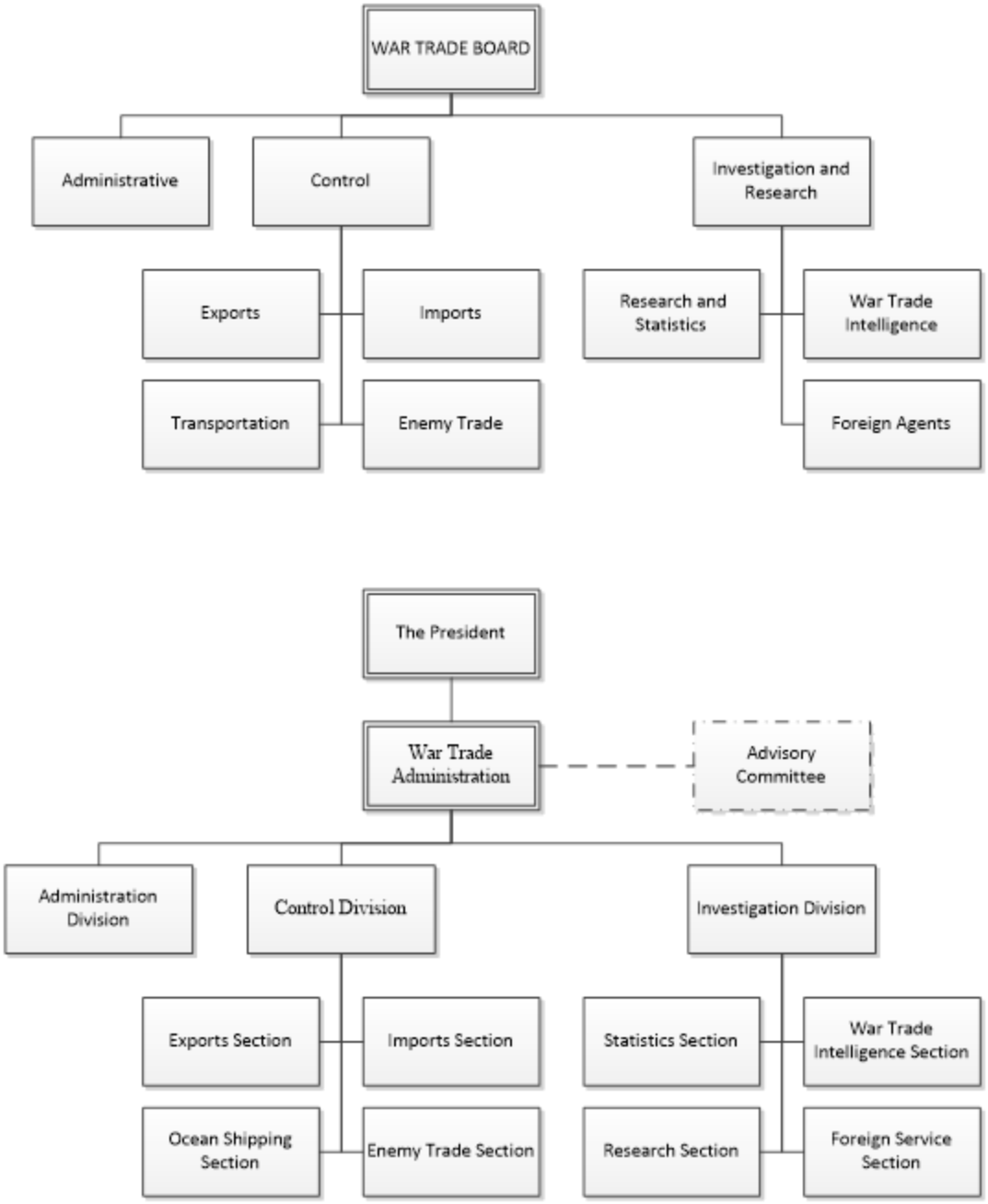

Figure 4.1 Organization of the Wart Trade Board in World War I with the proposed War Trade Administration.

The information division acted as the intelligence (G-2) division. It included a War Trade Intelligence Section to collect, collate, and analyze current intelligence on enemy trade in support of economic warfare operations. A Research Section analyzed historical trade data to help determine potential enemy vulnerabilities in raw materials and to determine normal import

requirements for the economies of neutral countries in case the WTA decided to ration exports of critical materials to those countries. The data could also help the WTA and State Department negotiate wartime trade agreements with neutral countries.

The Control Division was the operations (G-3) division. The export control section was of immediate interest to Maxwell. The annex suggested that export controls could be implemented for a number of reasons, including economic warfare:[249]

1. Limited domestic supply.
2. Desirability to direct exports for purposes of bargaining for imports.
3. *Preventing supplies from reaching unfriendly or enemy hands.* (emphasis added)
4. Concentration or distribution of shipping.
5. Controlling distribution in foreign countries.
6. To foster postwar trade relations.

The annex also anticipated that the WTA would control imports as well as exports. The annex noted that one reason to restrict imports was to protect allies (in this case Great Britain and France) from US firms that might compete to purchase and import raw materials needed by the allied war economies for US consumer markets. Interestingly, the annex did not specify that import control could be used as an instrument of economic warfare in order to limit an enemy's ability to manage their balance of payments currency accounts. The British had embargoed German exports in both World War I and the current war as part of their blockade. This would limit their ability to conduct foreign trade by restricting the amount of foreign currency an enemy could earn and then use to purchase critical raw materials from foreign markets.

[249] "War Trade Annex (Revised) to the Industrial Mobilization Plan (1939)," 34.

In World War I, inadequate shipping resources significantly limited the mobilization of the economy, the supply of raw materials and commodities to allied war economies, and the deployment of the American Expeditionary Force to France. The War Trade Board had implemented strict controls of US and neutral shipping in an attempt to both maximize shipping utilization and prioritize its use for the most important needs. As the annex was being prepared, shipping was already constraining the economies of every major power and the Latin American Republics. Like the WTB, the annex anticipated that the WTA would regulate US and neutral merchant shipping again and planned for an Ocean Shipping Section. Although the annex never used the term blockade, the controls to be welded by the section could be (and were) used to enforce a proto-blockade based on the control of ports (later to be dubbed "control at the source") instead of on interception of ships at sea.

The final section in the division, the Enemy Trade Section, was the main organization for planning and carrying out economic warfare campaigns against the enemy. The annex specified that its functions would include:

- A restriction of enemy trade with neutrals as far as legal limits permit by rationing neutrals.
- The formulation of agreements with neutrals that American exports be distributed in neutral countries under the supervision of representatives of the War Trade Administration.
- The execution of all possible guarantees and agreements with neutrals regarding imports from the United States.
- The purchase of products of neutrals in order to prevent sale to enemies of the United States.

- The maintenance of United States exchange with neutrals and the prevention of enemy maintenance of exchange with them.
- The control of enemy interests in American business.
- The control of accumulations of enemy stocks in the United States and in foreign countries, wherever possible.
- The publication of lists of neutral firms or persons engaged in trading with the enemy and the prohibition of United States exporters from trading with such persons (i.e., blacklisting).
- The establishment of intelligence services to investigate all of the channels of enemy trade either with neutrals or with citizens or aliens of the United States and to render advisory services on questions presented.[250]

The officers planning for mobilization, however, faced a "dilemma of delay" in seeking to implement the World War I WTB organization and framework of controls. "In a democratic country such as ours, Federal controls can be applied only to the extent to which the people can be convinced of their necessity. The fact is that to delay such action until the necessity for direct control measures is demonstrable to the people as a whole is to delay too long." [251]

The planners offered two solutions: gradual implementation and secrecy. They anticipated a pathway from peacetime to a controlled war economy that, unlike earlier versions of the plan, did not depend on the formal declaration of an M-Day and its associated timeline. Instead, "Prudence dictates… that early controls be of the indirect type and that the more direct

[250] Ibid, 31-32.

[251] Ibid., 4.

and rigorous controls be instituted progressively as necessity therefore is seen and can be demonstrated."[252]

Full wartime controls and the associated War Trade Administration to direct them could be implemented in three phases. The first phase of the transition from peace to war they labeled the "Period of No Publicity." It would be characterized by as a "period of strained international relations during which a war involving the United States seems possible." Because the level of public support would probably not allow the establishment of the War Trade Administration, initial controls would be directed by the Army and Navy Munitions Board through its War Trade Section. During the period, "political and diplomatic considerations will demand the utmost secrecy in any action taken."[253]

They emphasized the need not only to maintain secrecy but also to obfuscate the actual purpose behind the controls being implemented as a part of the initial economic warfare effort. "Consequently, any measure applied to the administration and coordination of foreign trade toward war preparedness must be carried on without publicity…. The effect of war trade measures used should be carefully weighed – their objectives should be guarded, and if necessary, the action taken should be justified on grounds unrelated to the real purpose of the action." The needs of national defense could provide just such a justification. "Public sentiment will probably support any reasonable measures for increasing national defense." It was a tactic that both Roosevelt and Maxwell employed. [254]

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[252] Ibid.

[253] Ibid., 19

[254] Ibid., 19-20.

From the very first phase, the ANMB War Trade Section would begin planning and directing an economic warfare campaign against the Axis, which would be coordinated with the Joint Board and its war planning staff. Economic warfare measures "should be taken with a knowledge of the proposed joint military plans and the views of the military as to the effects of foreign trade on the prosecution of war with certain powers."[255]

The next phase was what the planners called the "Period of Open Activity." It would begin "when the condition of international affairs leads to the conclusion by the President and the heads of the armed forces, that war is imminent." They expected the President to declare a state of emergency, invoke his war powers outlined in the National Defense Act, and establish the War Resources Administration as the leading superagency in preparation for the future establishment of the other economic superagencies, including the War Trade Administration. There would be decreased need for secrecy, except with regard to economic warfare measures, including war trade agreements, being conducted in neutral countries.[256]

The final step, the "Period of Wartime Control," would follow the US entry into the war. The President and War Resources Administrator would establish the full War Trade Administration. The ANMB War Trade Section would be incorporated into the new administration. The planners believed that "Public opinion should… be ready to support any reasonable war measure." Wartime authority would allow all economic warfare measures to be implemented, enabling a comprehensive economic warfare campaign under the direction of the WTA in coordination with the military.[257]

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[255] Ibid., 21.

[256] Ibid., 23-24.

[257] Ibid., 28-30.

To carry out the control of foreign trade, the War Trade Administration would need to direct and coordinate actions by over sixty other departments and agencies within the executive branch. The IMP and War Trade Annex assumed that these existing agencies would "be used to administer any assigned war missions for which they are naturally adapted."

To coordinate the most important of these agencies and to assist in developing politically acceptable polices, the War Trade Administrator would establish an advisory board consisting of the representatives from the Departments of War, Navy, State, Commerce, and Agriculture, from the proposed War Resources Administration (which they expected to be established before the War Trade Administration) and US Maritime Commission.[258]

Maxwell on AEC creation: "Of course, there were plans for setting up a control of some kind that had been made and revised and rehashed for many years. They recognized the necessity of something similar to the War Trade Board."[259]

III. Maxwell's Treaty System

The planners expected that much of the administrative work of economic warfare would be performed by existing government departments and agencies. Maxwell needed to coordinate and direct the efforts of other executive agencies. Compared with the capabilities of government executive agencies at the time the United States entered World War I or even during the creation of the earlier Industrial Mobilization Plans, the Roosevelt Administration had significantly increased the administrative capacity of the government through a series of New Deal initiatives. The military's economic planners expected that the existing civilian agencies would be used to

[258] Ibid., 30-32

[259] "Conference with Major General R.L. Maxwell, Formerly Administrator of Export Control."

conduct wartime economic missions assigned to them by the economic superagencies. The War Trade Annex stated:

The reorganization of government departments, the creation of new governmental agencies, the expansion of the scope of governmental departments, the creation of new governmental activities, the increasing participation of the United States in world affairs during the since the World War of 1914-1918, and the recent tendency toward greater Federal control in matters pertaining to our economic structure, have resulted in the establishment within the peacetime machinery of the Government of many facilities capable of exercising or capable of being adapted to the performance of many of the War Trade missions.[260]

The War Trade Annex's authors recommended the establishment of an advisory committee "to formulate policies to ensure coordinated action and to render advisory services on questions presented."[261] The committee would include representatives from the Departments of State, Commerce, Justice, Treasury, War, Navy, the US Maritime Commission, and the anticipated War Resources Administration superagency.

After their initial White House meeting, Watson provided Maxwell with a letter from the President addressed to the Cabinet Secretaries directing them to work with Maxwell and his nascent agency. "It is the President's desire that every government department and independent office or establishment render such aid and assistance as may be required and requested by Colonel Maxwell in the administration of the section of the act referred to."[262]

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[260] "War Trade Annex (Revised) to the Industrial Mobilization Plan (1939)," 30.

[261] Ibid., 31-32.

[262] "Memorandum to: Chiefs of War Department Arms and Services. Subject: Designation of Lieutenant Colonel Russell L. Maxwell, General Staff Corps, as representative to the President," dated June 18, 1940, Box 6, Folder Exhibit A, Entry Historical Monographs Prepared Outside Division, RG169, NACP

With the letter in hand, Maxwell moved quickly to establish an advisory committee in accordance with the guidance in the War Trade Annex, consisting of representatives from War, Navy, State, Treasury, Agriculture, Commerce, and the US Maritime Commission. Representatives from the NDAC replaced the plan's proposed War Resources Administration on the committee. The committee held its first conference on June 17—less than a week following Maxwell's appointment. Over the next year, Maxwell expanded the committee to include 25 departments and agencies.

The primary purpose of the advisory committee was to make recommendations to Maxwell on commodities that should be placed under control, on the extent of those controls, and on processes the AEC should use to enforce those controls. Maxwell was ultimately responsible for making decisions, and his decisions could only be overruled by the President—a course of appeal that the Secretaries of State, Treasury, and War did occasionally take in the first months of the administration. Through using the policy committee, however, Maxwell was able to utilize the knowledge base and planning potential of a much larger group of experts, and, perhaps more importantly, imbue his decisions with legitimacy based on interdepartmental consensus—or at least interdepartmental acquiescence. "I have been here in Washington long enough to know," Maxwell told a Congressional panel, "you have to get concurrence from the people affected by it before you make it, but having made it and the President approves it, there is no one to interfere with the execution of it."[263]

[263] "Report of Proceedings: Hearing held before Military Defense Investigating Committee, Special Committee No. 3" June 3, 1941, Box 995, Folder Historical Export Control Exhibits File, Entry 171 History of Export Control Exhibits, RG169, NACP.

Maxwell created what he described as a "treaty system" with the executive departments, which would advise the Administration through representatives on what Maxwell called the Policy Committee. He met individually with each of the cabinet secretaries, or, in the case of War and Navy, with the assistant secretaries, to negotiate and sign agreements specifying what support each department would provide. These "treaties" were then signed by the respective secretaries and Maxwell.[264]

Maxwell made his first "treaty" with Secretary of State Cordell Hull. The agreement was the longest at four pages and most comprehensive. The authors of the War Trade Annex planned for a special relationship between the prospective War Trade Administration and the State Department, which they laid out in a separate appendix to their plan. Secretary of State Cordell Hull had criticized the 1936 Industrial Mobilization Plan for failing to provide for foreign policy oversight by the State Department over the envisioned War Trade Administration. He asked Secretary of War Harry Woodring to specify measures for coordination with the State Department in the plan.

Since the exercise the such duties might well have important influence upon our relations with the countries affected by these restrictions, and since, in addition, this county is now engaged in advancing a rather far-reaching program of commercial policy, I believe that it would be most natural and essential that the State Department should have an adequate part in all major decisions of policy affecting foreign trade which the War Trade Administrator might have occasion to make….[265]

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[264] "An Historical Record of Export Control," 9.

[265] Thatcher, 244.

In response, the authors of the 1939 War Trade Annex laid out a special relationship with the State Department. They wrote that the Administrator would be responsible to the President "except in matters affecting the foreign relations of the United States, and for these matters he will be responsible to the Secretary of State."[266]

Maxwell's treaty with Hull specified that "The Administrator, recognizing the paramount responsibility of the Secretary of State in the conduct of foreign relations, will accord full consideration to the views of the Department of State on matters relating to foreign policy." The agreement also codified the relationship between Maxwell's AEC and State's Division of Controls. "The Division of Controls of the Department of State will administer the system of export licenses under rules and regulations and specific directives furnished by the Administrator."[267] In practice, the Division of Controls still forwarded approximately one-third of export license requests to the AEC for ultimate decision. In order to "accord full consideration" to State, the Division of Controls could forward these with the Department's recommendation for approval or disapproval, which might or might not be accepted by the AEC license section. Maxwell also provided the State Department a special process to appeal decisions the Department did not agree with to an AEC Review Committee, but the AEC maintained the final say over all appeals.[268]

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[266] "War Trade Annex (Revised) to the Industrial Mobilization Plan (1939)," Appendix 12: War Trade Administration Organization.

[267] "Memorandum: Interrelated Duties of the Department of State and the Administrator of Export Control," dated June 21, 1940, Box 6, Folder Exhibit A Historical Background, Entry 146 Office of Administrator, Records Analysis Division, Historical Monographs Prepared Outside Division, RG169, NACP.

[268] "Duties and Functions of the Division of Controls in the Department of State."

After the war, Herbert Feis, who served as the State Department Adviser on Economic Affairs, in his oft-cited history *The Road to Pearl Harbor*, claimed that despite the War Trade planners' attempt to forge an acceptable interagency compromise over the direction of the economic aspects of foreign policy delegated to the Administration of Export Control and its organizational successors, the relationship between the administrator and the State Department was often strained by divergent objectives that were difficult to reconcile and a bureaucratic competition that would reemerge periodically through the end of the war.

In contrast, Harry Hopkins, who would shortly give up his position as the Secretary of Commerce to focus on his less formal but more critical role as the President's chief lieutenant, committed the full support of the Department of Commerce to Maxwell. Commerce, especially its Bureau of Foreign and Domestic Commerce, was the government's primary repository of experts, statistics, and analysis of international trade—what today would be called open-source intelligence—relevant to export control and economic warfare. A few months later, the Bureau's analysts would begin to make substantial contributions to economic warfare planning, taking on the intelligence functions of the Research Section of the Investigation Division in the proposed War Trade Administration.[269]

In accordance with the Industrial Mobilization Plan, War and Navy would be collectively represented by the Army and Navy Munitions Board. Maxwell had served on the Board less than a year earlier, and the Board was dominated by the Office of the Assistant Secretary of War, which was itself dominated by Maxwell's fellow Ordnance Branch officers and Army Industrial

[269] "Interrelated Duties of the Department of Commerce and the Administration of Export Control," dated July 3, 1940, Box 6, Folder Exhibit A Historical Background, Entry 146 Office of Administrator, Records Analysis Division, Historical Monographs Prepared Outside Division, RG169, NACP.

College graduates. Maxwell agreed that "the AEC will consult the Army and Navy Munitions Board as a primary source of information as to the needs of the National Defense for items and commodities the export of which is under consideration."[270] Counterintuitively, the ANMB was the most conservative in its policy committee positions on economic warfare of all the participating executive agencies. Recognizing the potential financial (and public support) consequences to American businesses from export controls, in discussions over expanding the list of commodities to be placed under export control, the senior military officers serving on the Board scrupulously adhered to the letter of the law in assessing military requirements for strategic and critical materials needed to support production requirements for only congressionally authorized troop and equipment levels plus formally authorized stockpiles.[271] Representatives from the ANMB sat on every AEC committee and subcommittee, and Maxwell tried to work "in constant step with them."[272]

Maxwell also met with William Knudsen and Edward Stettinius, the heads of industrial production and industrial materials on the NDAC. The pair appointed H.S. Vance and Averell Harriman to represent them on Maxwell's policy committee.[273] Although not specified in their

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[270] "Memorandum for Executive Secretary of the Army-Navy Munitions Board, Subject: Control of Exports," dated July 3, 1940, Box 6, Folder Exhibit A Historical Background, Entry 146 Office of Administrator, Records Analysis Division, Historical Monographs Prepared Outside Division, RG169, NACP.

[271] "Memorandum For Lieutenant Colonel R.L. Maxwell, OD, Administrator of Export Control, Subject: Aviation Gasoline," dated July 23, 1940, Box 6, Folder Exhibit D, Entry 146 Office of Administrator, Records Analysis Division, Historical Monographs Prepared Outside Division, RG169, NACP.

[272] "Report of Proceedings: Hearing held before Military Defense Investigating Committee, Special Committee No. 3"

[273] "Memorandum for Export Administrator and for the Industrial Materials and Industrial Production Divisions of the Advisory Commission to the Council of National Defense," dated June 26, 1940, Box 6, Folder Exhibit A Historical Background, Entry 146 Office of Administrator, Records Analysis Division, Historical Monographs Prepared Outside Division, RG169, NACP.

treaty letter, the NDAC seconded several members of their staff to work on AEC committees and later to assist with economic warfare planning.

The only department Maxwell had any initial difficulty with was the Treasury. For several months, Secretary Morgenthau had been advocating for placing export controls within his department. It was not an unreasonable position. Treasury customs agents would already be responsible for enforcing export controls, and the Department was also currently responsible for purchasing stockpiles of strategic raw materials. Morgenthau also advocated imposing broader export controls along the lines of the moral embargo than those proposed by State. Hopkins had not consulted Morgenthau about the plan to appoint Maxwell and create the Office of the Administrator of Export Control. Apparently, Hopkins had discussed the subject with Edward Foley, the Assistant Secretary of the Treasury, but Foley had not passed on the information. At the end of June, Morgenthau made a twelfth-hour effort to persuade the President to delegate export controls to a board of cabinet secretaries with Secretary of State Hull as the nominal chair, but the executive authority was delegated to Morgenthau and Treasury. At the end of June, Morgenthau complained to Watson, "The Treasury does not approve of the method of carrying out this provision…. The Treasury recommends that the President designate either the Secretaries of State, War, Navy, or Commerce to administer the matter."[274] Over the next year, Morgenthau persisted in attempts to convince the President to transfer the AEC to his control.[275]

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[274] "Memorandum for General Watson," dated June 26, 1940, Box 995, Folder G-3, Entry 171 "History of Export Control" Exhibits, RG169, NACP.

[275] In 1941, Morgenthau, Assistant Secretary of State Dean Acheson, Maxell, and the Bureau of Budget all developed competing plans for future control of export control and other related economic warfare functions. Morgenthau's plan was the only one universally rejected every stakeholder consulted by Budget's organizational planners.

IV. Setting up the Administration of Export Control

Having established a basis for future interagency coordination, Maxwell's next task was to actually create his new agency. Initially it was labelled the Office of the Administrator of Export Control, although later the agency would most commonly be called the Administration of Export Control (AEC).[276]

Congress did not pass the legislation authorizing the President to control exports until July 2, but shortly after the President appointed Maxwell as administrator in June, the War and Navy Departments provided Maxwell with a small staff of four Army officers and one Navy officer.[277] He organized his staff into three divisions—an administrative division, a technical division, and an information division. The administrative division was responsible for liaison with the White House and with the State Department's Division of Controls, which handled the actual export licensing process, and personnel and supply tasks. The technical division worked with the advisory policy committee to determine future controls and prepared guidelines for

[276] The name Export Control Administration (ECA) was also used in some documents, but the agency used the term AEC in its own documents. In mid-1941 the name Office of Export Control (OEC) became more common.

[277] The first officers assigned to the AEC were: Major A.N. Ziegler (Judge Advocate General), Lieutenant Colonel O.G. Trunk (Air Corps), Lieutenant Colonel W.E. Chickering (AGD), Major J.S. Bates (Ordnance Branch), and Navy Lieutenant Commander K.E. Hintze (Naval Operations). It is not clear where the military transferred these officers from. The War Trade Annex anticipated that a War Trade Section of the Army and Navy Munitions which would do the preparatory work of the War Trade Administration prior to the establishment of the WTA. The section would then be transferred to the WTA. It is therefore likely that these officers were members or designed to become members of the War Trade Section and were detailed to Maxwell from the ANMB or the OASW. It is not clear if the War Trade Section of the ANMB was ever formally established. Contemporary organization charts of the ANMB from Spring 1940 do not show a War Trade Section. None of the initial officers were graduates of the Army Industrial College.

licensing. The information division conducted public relations and prepared case files when rejected export licenses were reviewed or appealed.[278]

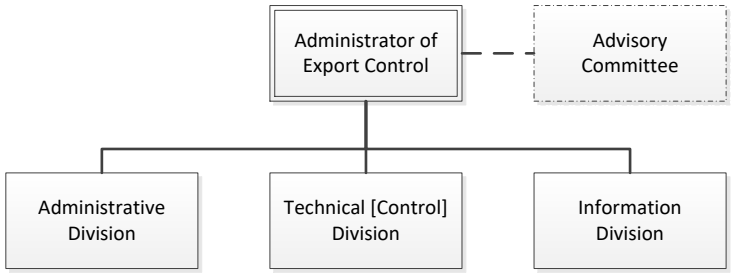

Figure 4.2 Organization of the Administration of Export Control as of September 1940.

The organization generally matched the organizational structure planned for the War Trade Administration, which was essentially copied from the organization of the War Trade Board from World War I. Maxwell turned to the veterans of the World War I War Trade Board for help in establishing his new administration. He corresponded frequently with C. Arthur Richards, who had served as the head of the Exports Division of the Board and the chairman of the Contraband Committee. Maxwell recalled, "We used their material and adjusted to our own needs."[279]

Consistent with the incremental implementation envisioned in the War Trade Annex, the AEC did not have the necessary authorization to carry out the full program of wartime trade control conducted by the War Trade Board and anticipated War Trade Annex. The initial organization reflected this and did not include all the anticipated divisions. Many of these would be added later as the Administration's economic warfare program expanded.

[278] "Office Organization, Sept. 10, 1940," dated September 10, 1940, Box 6, Folder C-1, Entry 146 Office of Administrator, Records Analysis Division, Historical Monographs Prepared Outside Division, RG169, NACP..

[279] "Conference with Major General R.L. Maxwell, Formerly Administrator of Export Control."

Most of the administrative work of processing applications for export licenses of controlled materials and machine tools was actually done by the State Department's Division of Controls, headed by Joseph Green. The actual enforcement of the license controls was performed by customs agents stationed at American ports who inspected all outgoing shipments to ensure any controlled commodities were properly licensed.

At this point, the AEC had three principal roles. The first was to determine which raw materials and machine tools needed to be controlled "in the interests of national defense." Maxwell would forward recommendations to General Watson for the President's approval. With some significant early exceptions discussed in the next chapter, this was largely pro forma. The following March, the President authorized Maxwell to add new controlled items on his own authority without White House approval. This was the primary task of the interagency policy committee. Committee members made recommendations to add commodities to the controlled list based on domestic needs and on enemy needs and discussed the potential benefits and costs involved from the perspectives of their agencies, but it was up to Maxwell to make the final decision.

The second was to develop detailed instructions and procedural guidelines for the Division of Controls. These instructions specified conditions under which licenses for controlled exports were to be approved or rejected. The instructions were often revised in response to changing domestic needs or in response to new intelligence on Axis raw material requirements. This was the primary task of the officers assigned to the technical division (later renamed the licensing division).

Finally, Maxwell and his staff were the final arbiters of licensing decisions when either the Division of Controls was unable to make a decision on an application or when an exporter

appealed a rejected license. The Division of Control forwarded roughly a third of the applications it processed to the AEC for a final decision either because the existing guidelines did not apply or because, in the interest of its foreign policy, the State Department wanted Maxwell to approve a license that would be rejected under existing guidelines. This task was split between the officers of the Technical Division and an interagency Appeals Committee, which included representatives from the State Department, the NDAC, and the ANMB, who made recommendations to Maxwell, who made the final decision.

The initial group of six officers was entirely inadequate for overseeing export control, let alone fulfilling the expanded economic warfare role of the projected War Trade Administration. Maxwell's staff remained small for the first few months of operation. In August, the War and Navy Departments agreed to detail over one hundred officers to the new agency at a ratio of two Army officers to one Navy officer. [280] For the coming 1941 fiscal year beginning in October, Maxwell was authorized a total staff of 545 personnel.[281] The organization grew slowly and did reach its authorized strength until the end of the fiscal year, when its staff included around 135 Army officers, 65 Naval officers, and 350 civilian personnel.[282] Of the civilians, approximately 60 were top-grade civil service personnel while the remainder were largely clerical staff.[283]

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[280] Ibid.

[281] "Office for Emergency Management Office of the Administrator of Export Control Budget: Estimates, Salaries and Expenses Fiscal Year 1942," undated, Box 995, Folder H-3, Entry 171 History of Export Control Exhibits, RG169, NACP.

[282] "Conference with Major General R.L. Maxwell, Formerly Administrator of Export Control."

[283] Smith, 599 11n.

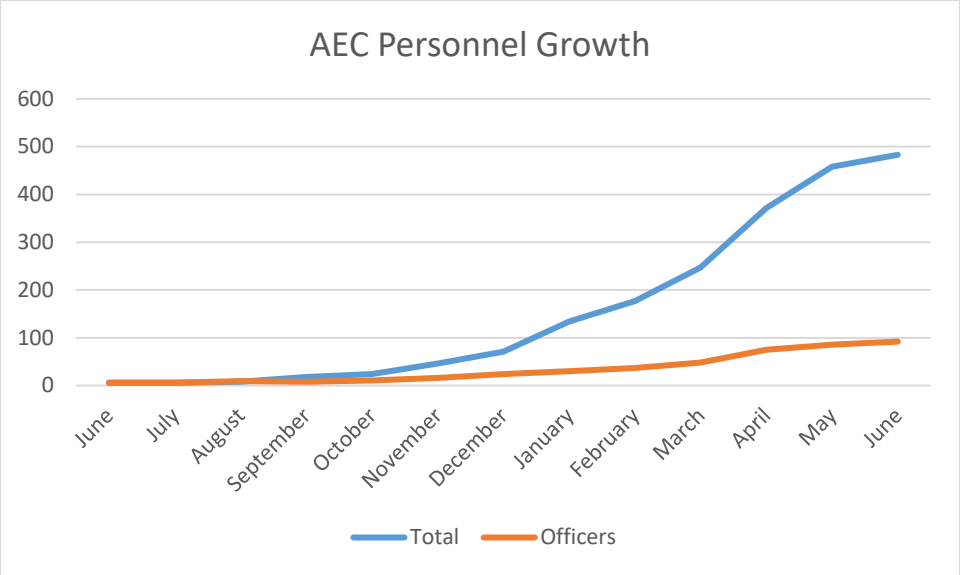

Figure 4.3 Growth in number of personnel in the Administration of Export Control.

Maxwell later recalled, "As you look back on it, it was a very modest organization. The staff was small, and, we thought, efficient in proportion to the task."[284] In stark contrast, in June 1940, when the staff of the AEC numbered only six officers, the British Ministry, which had a much more narrowly focused economic warfare measure in neutral countries and was not responsible for British export control, was at its peak strength of 1,506 personnel.[285] A better comparison might be the American World War I War Trade Board on which the AEC was modeled. When first established in July 1917, the WTB had 167 personnel, which increased steadily to a peak of 2,807 at the time of the armistice in November 1918.[286]

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[284] "Conference with Major General R.L. Maxwell, Formerly Administrator of Export Control."

[285] Nechama Janet Cohen Cox, "The Ministry of Economic Warfare and Britain's Conduct of Economic Warfare, 1939–1945" (PhD diss., King's College London, 2001), 52. Medlicott, 1:48. At the beginning of the war in September 1939 when the MEW as first established it had strength of 886 personnel. The British Government began to wind down the MEWs operations and staff in Spring 1944. Between April and May 1944, the size of the MEW was cut in half from approximately 1,300 personnel April to 671 in May. The size of its staff continued to shrink rapidly in the following months until only 282 personnel remained by May 1945.

[286] War Trade Board, 421-422.

Even though Maxwell enjoyed significant support for his new agency from key personnel within the Roosevelt Administration, he still faced substantial obstacles to staffing his agency with enough personnel and enough of the right kind of personnel. There were only so many AIC-educated military officers, and there was fierce competition over them between the procurement and industrial mobilization offices in the military's service and supply bureaus, the Planning Division of the Office of the Assistant Secretary of War, the Army and Navy Munitions Board, and the AEC.[287] The services were inducting large numbers of reserve officers into active service, but few of these men had the educational or professional backgrounds for export control or other economic warfare functions. To remedy this problem, Maxwell's staff created a training program which they conducted at Georgetown University.[288]

Maxwell was able to partly solve his personnel problems through a variety of expedients. At that time, the military was directly commissioning civilians with special skillsets or professional backgrounds as Special Reserve officers, and Maxwell was able to recruit several of these officers with business backgrounds onto his staff. He actively recruited better-qualified retired officers, some of whom Maxwell was able to have recalled to active military services, as well as civilian veterans of the War Trade Board. In September, he went directly to the Commandant of the Army Industrial College, and, leveraging his support from Secretary of War Henry Stimson, was able to directly recruit a group of officers from the next graduating class. He recruited scholars primarily with backgrounds in economics and history from within an academic network drawn from elite New England universities. He was also able to borrow civil service experts from other agencies on long-term loans to the AEC. Maxwell explained: "There was no

[287] Less than 900 officers had graduated from the AIC between 1926 and 1941.

[288] "An Historical Record of Export Control," 44.

particular reason why we had officers or didn't have them. We took a man and circulated him around in the various parts of the office, and when someone who needed his particular qualifications, whether Army, Navy, or civilian, we took him into our organization."[289]

The AEC relied on civil service personnel from a number of different agencies to support its work so that the effective operational size of the AEC was much larger than its authorized personnel strength. This included at least 70 personnel in the Division of Controls. "In this respect, the Administration of Export Control has acted somewhat in the nature of a staff center, deriving its information from various government departments and agencies and correlating such information so that it may best serve the purposes of economic warfare."[290]

Maxwell consciously tried to limit friction with other agencies and minimize persistent bureaucratic competition. He explained, "We always went on the theory that we wouldn't replace any going concern in Washington. Every Federal department that was a going concern was asked to furnish reports; to sit on our policy committee, so that we called on departments to do not only what they had always done, but take on additional duties and to do more work than they had done before. They were loath to believe that in the beginning. We tried to keep our office small and keep it down. We never had any quarrel as to who did what. It was only when they themselves said they couldn't do it that we undertook to do it ourselves."[291] He recalled,

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[289] "Conference with Major General R.L. Maxwell, Formerly Administrator of Export Control."

[290] "The Activities of the Export Control Administration in the Field of Economic Warfare," dated May 22, 1941, Box 2, Folder Economic Warfare Analysis, Entry 146 Office of Administrator, Records Analysis Division, Historical Monographs Prepared Outside Division, RG169, NACP.

[291] "Conference with Major General R.L. Maxwell, Formerly Administrator of Export Control."

"We had good people, good morale, and got a lot of work done and were envied by a good many people."[292]

One of the consequences of initiating export control with such a small staff was that Maxwell and the AEC were initially more dependent on State, Treasury, the NDAC, and the ANMB for information, staff analysis, and policy guidance. However, as the organization grew and the AEC's capabilities, expertise, and experience of the AEC increased, Maxwell and his staff began to assert a more significant impact on the development of and conduct of economic strategy.

V. Using Export Control for Economic Warfare

Export control is the restriction by the government "Of the exportation of specified commodities, processed materials, or manufactured goods through a licensing system under which items granted a license can be exported from the country.[293] The AEC determined what items would require a license and formulated and communicated the rules under which the licenses would be granted. The licensing system was enforced by the agents of the Customs Bureau, which was a part of the Treasury Department. The agents stationed at every American port ensured that every export shipment was checked and that any required licenses were approved before it could be loaded onto a ship for export. Exporters submitted license requests to the State Department's Division of Controls, which approved or denied the license based on the guidelines provided to them by the AEC, or, if there was a question over the applicability of the guidelines, they forwarded the request to the AEC for a final determination.

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[292] Ibid.

[293] ICAF, *Economic Intelligence and Economic Warfare*, 43.

In theory, the process of export control would work as follows: First, the Army and Navy Munitions Board identified the materials and manufactured items that were necessary for munitions production and military supply and were in short supply to the Administrator of Export Control, who then places the materials on the list of controlled materials. Next, the ANMB provided the Administrator with the amounts required for each material on the list needed to support military production, while the NDAC provided amounts required for civilian production. After determining the amount of each material available, the Administrator determined the quantity of each material that could be exported. Finally, in consultation with the State Department, the Administrator allocated the exportable amount among the claimants with priority given to Great Britain, Canada, and the other Commonwealth Nations.[294]

However, as a wartime report on the AEC observed, "when President Roosevelt was authorized [to control exports]…, he set in motion a mechanism destined to become a potential weapon for the waging of economic warfare. The economic warfare aspects of the control mechanism were most warily concealed by diplomatic strategy. What was stressed at that early date was conservation for national defense."[295] Likely acting on guidance from the White House, the AEC was "interpreting export control broadly just as we do the interests of national defense."[296]

With the authority delegated from the President, Maxwell could tailor export controls to block exports to the Axis, including Japan, directly or through their agents operating in neutral countries, by adjusting five criteria in his directives to the Division of Controls. First, he could

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[294] "An Historical Record of Export Control," 44-45.

[295] Ibid., 1.

[296] "Export Control by Brigadier General R.L. Maxwell, USA, Administrator of Export Control."

completely block exports of a specified commodity. Except for cases of extreme scarcity within the US, this was rarely done as part of Maxwell's role was to assure the flow of needed raw materials to the British war economy. Second, Maxwell could block exports to specific businesses or individuals. This was done by blacklisting those firms and individuals suspected of working on behalf of the Axis. Third, he could block exports being shipped by specified American exporters suspected of knowingly shipping commodities to Axis agents. This was done through a separate, secret blacklist for Americans suspected of Axis sympathies. Fourth, he could set quotas of exports to neutral countries in an attempt to prevent the accumulation of exportable surpluses above minimum domestic requirements that could be sold to Axis countries. Finally, he could block exports to specific destinations like Japan, the Soviet Union, or the European Neutrals.[297]

[297] "An Historical Record of Export Control," 44-48.

Chapter 5 - First Moves—AVGAS, Scrap, and Machine Tools

I. Introduction

Before he even had a functioning staff or office, the newly appointed administrator found himself at the center of several pressing policy questions. Two issues stood out. The first was the future of the "moral" embargo on the export of aircraft, equipment, materials, and technology that would support the air power capabilities of Japan and the Soviet Union, "the armed forces of which are engaged in unprovoked bombing or machine-gunning of civilian populations from the air."[298] The second was the urgent need for certain machine tools ordered by the Soviet Union, which were necessary for the US Navy to facilitate the recently approved expansion of the fleet.

Shortly after the President signed the Export Control Act into law, he issued the first proclamation, prepared by Maxwell and his staff, placing a list of raw materials and manufactured articles under export control. The initial list included strategic and critical raw materials identified by the Army and Navy Board, as well as items not in short supply but related to the ongoing moral embargo. For example, molybdenum was included due to its importance to the German war economy, with the United States producing 95 percent of the global supply. Other controlled items were crucial for the production of combat aircraft.

Roosevelt later expanded the list of controlled items. The President's signed proclamation, drafted by the Administration of Export Control, extended control over petroleum products, tetraethyl lead, and iron and steel scrap. The day's headlines declared, "US Embargo Is Clamped on Metals and Oil." However, a follow-up regulation limited the application of export

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[298] *FRUS*, 1939, III Far East, Document 527 “Memorandum by the Chief of the Division of Controls (Green),” 33n. “Press Release No. 706” dated December 20, 1939, Box 6, Folder D, Entry 146 Office of Administrator, Records Analysis Division, Historical Monographs Prepared Outside Division, RG169, NACP.

controls on petroleum products to high-octane aviation gasoline and on iron and steel scrap to the highest quality within twelve categories.[299] None of these items had been identified by the Army and Navy Munitions Board in its published list of strategic or critical raw materials needed for the planned national defense rearmament program. In response to recent inquiries by the AEC, the ANMB had confirmed their assessment that the US had ample supplies to support military expansion and that these materials did not need to be controlled. These controls were implemented purely to prevent these materials from reaching the European Axis and its fellow aggressor nations, Japan and the Soviet Union. The impact of the first extension of export controls was far-reaching. It figures prominently in nearly every history of the "Road to War" between the United States and Japan, yet historians have not fully recognized the context of the President's actions within a developing, organized, and deliberate economic warfare campaign.

Herbert Feis, the prominent historian of American foreign affairs who served as the State Department's adviser on foreign economic affairs at the time and actively participated in the events he described, asserted in his foundational history *The Road to Pearl Harbor* that "No secret intelligence about Japanese affairs guided the timing of this statement. It was a swipe in a general direction and not an exactly clocked and aimed blow."[300]

Feis's characterization shaped the assessments of later historians, who have described the Roosevelt Administration's policies as haphazard and driven by bureaucratic competition among cabinet officers rather than a deliberate application of a coherent economic warfare policy. This perception is partly due to the episode's prominence in "Road to Pearl Harbor" narratives that

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[299] Herbert Feis, *The Road to Pearl Harbor: The Coming of the War Between the United States and Japan* (Princeton, NJ: Princeton University Press, 1950), 92.

[300] Feis, 88.

explain why Japan chose to go to war with the United States in December 1941. However, this emphasis on Japan has obscured the equally important role played by Germany and the European Axis as targets of the earliest actions in economic warfare.

Many contemporary documents used by historians create a veneer of haphazard reaction, but the timing of American actions reflected a convergence of several factors. First, reports from multiple sources indicated that Japanese agents were making extraordinary purchases of aviation gasoline at a time when the colonial possessions of European powers had become vulnerable. Second, both Spain and, to a lesser extent, Portugal were making large purchases of oil and aviation gasoline at a moment when the fall of France had effectively dismantled the Anglo-French economic blockade, and Spain was actively considering joining the European Axis. American and British leaders feared that Spain would use the gasoline to fuel its military conquests or re-export it to Germany, coinciding with Britain's RAF Bomber Command targeting the German synthetic fuel industry. Third, these actions occurred near the peak of an exaggerated belief in the effectiveness of strategic bombing that had developed during the interwar period. The British RAF and cabinet were desperate to ward off an anticipated "knockout blow" from the German Air Force, which was operating from bases along the recently occupied Atlantic Coast. Fourth, the President's actions represented a codification of a failing "moral embargo" targeting Japanese, Soviet, and German air power, as well as selected strategic raw materials, due to the belief that these were the largest vulnerabilities of the German war economy. Finally, Roosevelt had just accepted his political party's nomination to run for an unprecedented third term in a presidential election only months away. Keeping the country out of the war was a key platform plank for both parties. Thus, the period leading up to the November 1940 election was when the

President and American grand strategy were most constrained by the acceptability of possible ends, ways, and means.

II. Aviation Fuel

To understand the significance of the export controls that Roosevelt implemented at the end of July 1940, it is essential to grasp the nuances of aviation gasoline technology. [301] Few historians appreciate these details, leading them to underestimate the impact of the controls on hindering the military capabilities of Axis air power. All aviation fuels are not created equal. The octane or knock rating, a chemical characteristic of aviation gasoline, significantly impacts aircraft capabilities. The octane rating indicates the fuel's ability to resist explosive detonation in the combustion chamber under high compression, enabling greater power output. Given two engines with comparable specifications, an aircraft engine using higher octane fuel can generate more power than an engine of the same size using lower octane fuel. This additional power translates into performance advantages such as higher speeds, faster climb rates, longer ranges, and increased payload capacities for weapons or bombs. Higher octane fuels also influenced aircraft designs; for example, they allowed the U.S. Air Force to create long-range fighter aircraft with superior performance against German fighters equipped with larger engines.[302]

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[301] The definitive treatises on the technical development of high-octane aviation fuels before and during World War II are *S. D. Heron, Development of Aviation Fuels (Boston: Division of Research, Graduate School of Business Administration, Harvard University, 1950),* and United States Army Air Forces, *Aviation Fuels and Their Effects on Engine Performance, Technical Order No. 06-5-4* (Washington, D.C.: U.S. Army Air Forces, March 1945). Octane ratings listed on the pumps on modern gas stations use a slightly different method of reporting a fuel's octane rating than used during World War II.

[302] U.S. Navy, Office of the Chief of Naval Operations, Aviation Training Division, *Aerodynamics for Naval Aviators*, rev. ed. (Washington, D.C.: U.S. Navy, 1965), 137. Aerodynamics for Naval Aviators is one of the authoritative texts explaining the science of aircraft performance. The amount of Brake Horsepower produced by the

During the war, the air forces of the major combatants utilized aviation fuel with three different levels of octane ratings, each offering distinct performance differences. Training aircraft across all air forces typically used fuel with an octane rating between 70 and 80.[303] Combat aircraft, on the other hand, used fuel rated between 87 and 91 octane. At the war's outset, only the United States Air Force employed higher-level 100-octane fuels. In July 1940, the British introduced 100-octane fuel into their fighter force, resulting in a noticeable improvement in the performance of their Spitfire and Hurricane fighters during the Battle of Britain.[304] The Germans were unable to introduce 100-octane fuel until late in the war, and their petrochemical industry could not produce engine lubricating oils of the same quality as those of the Allies.[305] This had a significant impact on engine performance and reliability.

Producing higher octane fuels was more difficult and expensive, requiring advanced refining techniques. Straight-run gasoline, produced solely through distillation, was unsuitable

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piston engines in propeller-driven aircraft in World War II is a function of the engine's displacement, engine speed in rotations per minute (rpm), and brake mean effective pressure (BMEP), which is the effective pressure of the gas inside a combustion chamber during the power stroke. The higher the octane rating of the fuel, the higher the chamber pressure at which the engine can safely and reliably operate. The engine horsepower increases proportionally with an increase in the Brake Mean Effective Pressure. Thus, by the end of World War II, American, and British aircraft engines using the most advanced fuels rated at 150 Octane were able to produce roughly twice as much power as the same engines operating at the beginning of the war. During the war, both the Germans and the Japanese developed methods to boost the horsepower of their aircraft engines using fuels with inferior octane ratings, but these increases never matched those achieved by the Allies using their higher-octane fuels.

[303] USAAF Technical Order No. 06-5-4 *Aviation Fuels and Their Effects on Engine Performance*, dated March 1945, 6. British Intelligence Objectives Sub-Committee, *Final Report No. 119* (London: His Majesty's Stationery Office, 1945), 119. For example, the relatively simple aircraft for primary training in the United States used 73 Octane fuel, while advanced trainers used 87 Octane fuel. In Germany, training aircraft used 80 Octane fuel.

[304] Gavin Bailey, "The Narrow Margin of Criticality: The Question of the Supply of 100-Octane Fuel in the Battle of Britain," *English Historical Review* 123, no. 501 (April 2008): 394.

[305] Calum E. Douglas, *The Secret Horsepower Race: Western Front Fighter Engine Development* (Horncastle, UK: Tempest Books, 2020), 294.

for combat aircraft. Higher-octane fuel had to be blended from various refined components and combined with additives. The addition of tetraethyl lead to the gasoline blend significantly enhanced the octane rating. The US Army had also found that, because of its hydrocarbon composition, using gasoline refined from California crudes increased the octane rating as well.[306]

Tetraethyl lead is essential for high-octane aviation gasoline. In the 1930s, U.S. Army fuel researchers discovered that adding approximately three cubic centimeters of tetraethyl lead to a gallon of gasoline could increase the octane rating by about 50 percent. Without tetraethyl lead, the maximum achievable octane rating was between 70 and 80.[307]The production of tetraethyl lead limited the technology for producing 87-91 octane gasoline used by the combat aircraft of the European and Japanese air forces. To create fuel with an octane rating exceeding 87-91, such as the 100-octane fuel utilized by the American military, advanced refining technology was required, which was only available to a small number of American, British, and Dutch oil companies.[308]

At the war's outset in 1939, all major future combatants except Japan possessed both the refining technology and the capability to manufacture tetraethyl lead. Before the fall of 1940, Japan was entirely dependent on foreign sources for its supply of tetraethyl lead. In September,

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[306] Heron, 552.

[307] Ibid., 551-552. USAAF, 23-25.

[308] Aviation fuels in the 100+ Octane range required chemical reformation of certain hydrocarbons using special catalytic cracking and alkylation technologies. The Japanese were able to produce very small quantities of 100-octane fuel during the war, but the limited amounts had no appreciable impact on the air war in the Pacific. The Germans were able to produce 100-octane synthetic fuel derived from coal, but it was neither fully developed nor widely available until late in the war when the capabilities of the German Air Force were constrained by other factors, so it had minimal impact on the air war over Europe. The Germans did not have the facilities to produce 100-octane fuel from crude oil.

they completed their first manufacturing facility, enabling them to produce enough tetraethyl lead to meet their wartime needs.[309]

The most immediate trigger for the implementation of controls was a push from Secretary of the Treasury Henry Morgenthau, Jr., which stemmed from a conversation at a dinner hosted by British Ambassador Lord Lothian. Britain had recently conceded to Japanese demands to close the Burma Road, one of the few remaining transportation routes connecting the government of the Republic of China to support and supply. Stimson, a former Secretary of State who had formulated the American policy of refusing to recognize Japanese expansion into China and had long advocated a hardline stance against Japan, criticized the British concession.[310]

Lothian responded that the United States had no grounds to criticize Britain's actions: "After all, you are continuing to ship aviation gasoline to Japan." He added that if the United States halted exports of oil and aviation gasoline to Japan, the British would be willing to destroy the Dutch oil wells in the Netherlands East Indies.[311]

Morgenthau quickly sent a memorandum to the president outlining a plan to target the European Axis. The President, through the Administrator of Export Control, would halt the export of all oil, aviation gasoline, and oil products from the United States. Simultaneously, the British would destroy oil production facilities in the Dutch East Indies, while the British Air Force targeted Germany's synthetic fuel production plants. Together, the US and Britain would

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[309] United States Strategic Bombing Survey, Oil and Chemical Division, *Chemicals in Japan's War—Appendix*, Report No. 50 (Washington, D.C.: U.S. Government Printing Office, 1946), 63–64.

[310] Henry Morgenthau, Jr., Diary Book 284, Diaries of Henry Morgenthau, Jr., April 27, 1933-July 27, 1945, Franklin D. Roosevelt Presidential Library, Hyde Park, NY, 201.

[311] Ibid.

preemptively purchase all exportable oil from Latin American producers, effectively removing it from the market.[312]

In his diary, Morgenthau claimed credit for initiating the expansion of the targeted export controls. He recorded that he provided Roosevelt with a draft copy of an export control order for all petroleum products, which the President signed on July 25th. Morgenthau's account, however, omits much of the actual progression of events.

Despite Morgenthau's belief that he was solely responsible for initiating controls on aviation gasoline, the State Department and the AEC were also advocating for targeted export controls limited to aviation gasoline, aviation-grade lubricants, tetraethyl lead, and the technology to produce high-octane aviation fuels.

The previous December, the State Department had asked American aviation, oil, and chemical companies to impose a "moral" embargo on "countries whose armed forces are engaged in the unprovoked bombing or machine-gunning of civilian populations from the air."[313] In May 1939, the Japanese Navy began a bombing campaign against the Nationalist Chinese wartime capital, Chungking. On November 30, 1939, the Soviet Union invaded Finland, which included the bombing of the Finnish capital, Helsinki. Secretary of State Hull informed the ambassador to the Soviet Union that the embargo applied specifically to Japan and the Soviet Union.[314]

The State Department's interest in prohibiting exports to the Soviet Union may not have been entirely based on moral grounds. Before the German invasion of Poland, William Bullitt,

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[312] Ibid., 122.

[313] "Press Release No. 706."

[314] *FRUS*, 1933-1939, The Soviet Union, Document 617 "The Secretary of State to the Ambassador in the Soviet Union (Steinhardt)."

the US Ambassador to France and former Ambassador to the Soviet Union, reported to Hull that "the Soviet Government had just sold an enormous quantity of gasoline to the German Government, thus providing Germany with the means it had not been able to fully utilize for a long period for its air fleet and mechanized units."[315] After Poland's capitulation, Ambassador Steinhardt reported that the Soviets would continue to provide aviation-grade gasoline to their co-belligerent. He noted the possibility of "the reexport to Germany of high-octane gasoline imported from the United States."[316]

The Division of Controls had been considering the issue of restricting exports to the Axis powers since at least October 1939. However, they found that "there are no statutes now in existence authorizing the placing of restrictions on the export to any country of materials other than those technically defined as arms, ammunition, and implements of war. Before the export to any country of other manufactured products, or of raw materials, such as scrap iron, could be prohibited, new legislation would be required."[317]

Morgenthau also urged the President to include molybdenum, a ferroalloy used for making special high-strength steel alloys with high melting points, which are essential in machine tools, armor plates, artillery gun barrels, aircraft engines, and other militarily significant applications, in the "moral embargo." He believed it "constituted the vulnerable point in the German armor."[318] The United States produced 92 percent of the total global supply of

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[315] *FRUS*, 1939, I General, Eds. Matilda F. Axton, et al. (Washington, DC: US Government Printing Office, 1956) Document 380 "The Ambassador in France (Bullitt) to the Secretary of State."

[316] Ibid., Document 513 "The Ambassador in the Soviet Union (Steinhardt) to the Secretary of State."

[317] *FRUS*, 1939, III Far East, Document 526 "Statement Prepared by the Division of Controls."

[318] Morgenthau, Diary Book 299, 153; Diary Book 300, 428.

molybdenum.[319] During the first week of December, Morgenthau convinced the executives of Climax Molybdenum and three other smaller American producers to halt future sales to the Soviet Union and Japan. A week later, the State Department formally added molybdenum, as well as aluminum, which was essential for manufacturing aircraft, to the embargo.[320]

In early January 1940, the Advisor on Political Relations for the Far East, Stanley Hornbeck, urged Secretary of State Hull to "formulate without delay a program of possible future action in relation to the Far Eastern situation." The survival of China as "an independent and sovereign country" was a significant national interest. Hornbeck outlined steps the government could take to weaken the Japanese war economy while strengthening the Nationalist Chinese' ability to resist. Without additional legislation, the government could increase pressure on Japan by implementing restrictive measures.[321]

Hornbeck advocated expanding the “moral embargo” to include other strategic raw materials. "While it is realized that the placing of embargoes on moral grounds (without basis in law) is open to certain objections, ... it is suggested that consideration might be given, should circumstances seem to make such action advisable, to extending the existing moral embargo on certain exports to Japan to include other commodities, such as petroleum, scrap iron and steel, et cetera."[322]

In his January memo to Hull, Hornbeck expressed concern that Congress would soon pass legislation restricting exports to Japan, which he feared would preempt the more deliberate and measured approach he advocated. "The proponents of such measures could probably not be

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[319] Ibid., Book 298, 268.

[320] Ibid., Book 302, 80.

[321] FRUS, 1939, III Far East, Document 528 “Memorandum Prepared in the Department of State.”

[322] Ibid.

dissuaded from pressing for their enactment unless the administration presents a clearly defined alternative course of action which would appear safer and to hold promise of achieving the same end, namely, the protecting of American rights and interest in the Far East, including the upholding of principles common to our foreign policy as whole."[323]

But the moral embargo was breaking down. Before its implementation, American companies had assisted Germany and Russia in constructing facilities to produce high-octane aviation fuel using American methods and technology. There had been an attempt to include plans, manufacturing rights, and technical information for aviation gasoline production in the original Export Control Act of July 2, 1940, but this effort "did not produce any favorable results."[324] Since the summer of 1939, the Federal Bureau of Investigation had been tracking agents from the future Axis nations and the Soviet Union who were seeking to obtain aviation fuel technology from American companies. In February, an investigating agent reported that "Japan, Germany, Italy, and Russia are adopting subterfuges to obtain high-octane aviation gas and to acquire blueprints and plans for the construction of oil-cracking plants to be used for aviation gas production in those countries." The Japanese Navy and Army had separate delegations in the United States, often operating through front companies that the FBI identified as "simply agents of the Japanese Navy." Several American companies were either finalizing deals for technology transfers or were close to such agreements for 100-octane aviation fuels, including Phillips Petroleum Company, Universal Oil Products, and M.W. Kellogg Company. The FBI suspected that Kellogg had employees with pro-Nazi sympathies. Phillips was preparing

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[323] Ibid.

[324] "Memorandum for Executive Secretary, Army-Navy Munitions Board Subject: Aviation Gasoline," dated July 19, 1940, Box 6, Folder D, Entry 146 Office of Administrator, Records Analysis Division, Historical Monographs Prepared Outside Division, RG169, NACP.

to sell large volumes of 100-octane fuel to Germany through Japan, where it would be transshipped across the Soviet Union to Germany.[325]

The French surrender in June fundamentally altered the conditions of the British blockade. The Royal Navy could no longer control the entire European maritime frontier. Spain could potentially assume the role of the neutral states adjacent to Germany during the First World War, serving as an entrepot for raw materials from overseas neutrals that would then be re-exported to Germany. Spanish leader Franco was ideologically aligned with Hitler, and Spain still owed Germany significant debts for munitions supplied during the Spanish Civil War. Spain formally shifted from "neutral" to "non-belligerent," informally aligning itself with the other Fascist states.

At the beginning of July, the National Petroleum News reported that Spain was obtaining large amounts of oil from the United States. Both British and American leaders were concerned that Spain was preparing to enter the war as a belligerent or to support Germany as a neutral, serving as a port of entry for raw materials into Axis-controlled Europe.[326]

Roosevelt had already been considering ways to subtly reinforce the crumbling British blockade. With his support, during the second week of July, Morgenthau directed his customs agents to delay the departure of oil tankers bound for the Iberian Peninsula. In his July 22 letter to the President (the same day the President instructed Welles to tell Maxwell to place aviation fuels under license controls), Morgenthau used the Spanish oil purchases to justify his proposal

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[325] "An Historical Record of Export Control," 3. "From Director, Federal Bureau of Investigation to Honorable Adolf A. Berle, Junior, Assistant Secretary of State," dated September 13, 1940. Box 6, Folder F, Entry 146 Office of Administrator, Records Analysis Division, Historical Monographs Prepared Outside Division, RG169, NACP.
[326] Leonard Caruana and Hugh Rockoff, "An Elephant in the Garden: The Allies, Spain, and Oil in World War II," *NBER Working Paper No. 12228* (Cambridge, MA: National Bureau of Economic Research, 2006), 10–11.

for total control over all oil exports.[327] In his July 19 memo to Welles, Hornbeck had specifically noted the need to block aviation gasoline shipments to Spain and potentially to Germany, as well as Japanese purchases, as the rationale for implementing export controls at that time.

Roosevelt approved a more formal embargo on August 1, although it had already been informally in place for several weeks. The Spanish government quickly realized that Germany and Axis-occupied Europe would be unable to meet its essential economic needs, prompting Franco to signal a retreat from potential belligerency. Roosevelt lifted the complete embargo at the end of the first week of September, but Maxwell continued the embargo on aviation gasoline, aviation lubricants, and tetraethyl lead. From that point on, aviation fuels would only be exported to the Western Hemisphere or the British Empire.[328]

On July 18, Stanley Hornbeck met with representatives of the Standard-Vacuum Oil Company, who warned him that Japanese agents were attempting to purchase large quantities of aviation gasoline for delivery by the end of August. Representatives from the California Texas Oil Company had separately reported the same information to Maxwell Hamilton, the chief of the department's Division of Far Eastern Affairs. That same day, James Dunn, Hornbeck's counterpart for European affairs, warned him that Portugal and Spain were also placing large orders for aviation gasoline, which he suspected was intended for Germany.

On Friday, Hornbeck sent a memorandum to Welles, cautioning that the unprecedented purchasing attempt "suggests the existence of a plan on Japan's part for extensive military or

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[327] Morgenthau, Diary Book 285, 185.

[328] Caruana and Rockoff, 13-21. Caruana and Rockoff attribute a significant role for the combined US-British oil embargo for persuading Franco not to join the Axis. “Directive No. 52,” dated August 2, 1940, and “Directive No. 89,” dated August 29, 1940. Box 6, Folder D, Entry 146 Office of Administrator, Records Analysis Division, Historical Monographs Prepared Outside Division, RG169, NACP..

naval operations in the near future. If Japan gets possession of huge new supplies of aviation gasoline and tetraethyl lead, her embarkation upon and carrying out of new acts of aggression will be greatly facilitated."

Hornbeck proposed that they ask Maxwell to immediately place aviation gasoline under restrictive licensing, under the pretext of determining national defense requirements. He continued, "I feel strongly that action should be taken, and taken promptly, toward keeping within reasonable limits or entirely cutting off exports of aviation gasoline to Japan and to other countries, especially those countries through which delivery may be made to Germany or to Italy."[329]

The next day, Morgenthau met with President Roosevelt, Stimson, Secretary of the Navy Frank Knox, and Undersecretary of State Sumner Welles. Stimson described the meeting. “The President pointed to the map across the room and said that he had sat there day after day watching that map and that he finally came to the conclusion that the only way out of the difficulties of the world was by the starving of the people of Europe, particularly in regard to their supply of fuel to carry out the war.... The President has ideas by which America could, acting under recent legislation [the Export Control Act], prevent all of the petroleum supplies—particularly aviation oil—from going to the Nazi Axis powers."[330]

Stimson and Knox supported the concept; however, Welles objected. He warned that an oil embargo could provoke Japan to declare war on Great Britain and move to seize oil fields and

[329] FRUS, 1940, IV The Far East, eds. John G. Reid et al. (Washington, DC: US Government Printing Office, 1955) Document 638 “Memorandum by the Adviser on Political Relations (Hornbeck).”

[330] Feis, 90.

refineries.[331] Roosevelt instructed Morgenthau and Welles to meet with the British Ambassador to develop a mutually acceptable operational plan.

Morgenthau had anticipated Welles's objections to the plan. To overcome the State Department's caution, he planned to enlist Secretary of the Interior Harold Ickes to persuade the President that a total ban on oil exports was necessary to meet expanded national defense requirements. Ickes's department had just completed a survey of American oil production and needs, and he could ensure that the study indicated a shortage of oil. He told his aides, "That would keep the State Department from opposing the idea and say if we just did it against Japan, it would be an excuse for war because it would be applying an embargo...."[332]

After the meeting, Morgenthau met with his assistant secretaries. He told them he was considering advocating for an embargo on iron and steel scrap exports to Japan. Given the structure of the Japanese steel industry, imports of large quantities of scrap from the United States were critical to Japan and represented one of its most significant vulnerabilities in heavy industry, essential to its war economy.[333]

Edward Foley asked whether Morgenthau had included scrap iron in the embargo plan. Morgenthau answered, "Well, I didn't want to bring it up, you see, because this thing is a natural, Ed, on a question of conservation and national defense. We don't let any oil go out of this country. Now, if we begin scrap iron, then the State Department will say Japan will fight, but they can't say Japan is going to fight if we are doing this as a matter of conservation and national

[331] Ibid., 90-91.

[332] Morgenthau, Diary Book 284, 202.

[333] Ibid., 213.

defense... that was the trick in this thing that pulled the main argument away from the State Department so that if had no argument."[334]

Maxwell sent a memo to Colonel Charles Hines, the executive secretary of the Army and Navy Munitions Board, inquiring about "the asking, "The question has arisen as to the necessity for or desirability of trying to continue in effect the restriction imposed" in extra-legal "moral embargo" on high quality aviation fuel that the State Department had first promoted the previous December. "An expression on the opinion and views of the War and Navy Departments is desired."[335]

Hines responded that "it is believed that we have no legal authority to back up the moral embargo issued by the State Department..." and that the Board would only make recommendations "strictly in accordance with the law." Consequently, any recommendation to formalize an aviation gasoline embargo would need to come from the State Department.[336]

The State Department had already made its recommendation to Maxwell. Green notified him on July 22 that "The President today called the Acting Secretary of State by telephone and requested him to inform you that he wishes measures taken with the least possible delay to

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[334] Ibid., 216.

[335] "Memorandum for Executive Secretary, Army-Navy Munitions Board: Subject Aviation Gasoline."

[336] "Memorandum for Lieutenant Colonel R.L. Maxwell, OD, Administrator of Export Control, Subject: Aviation Gasoline," dated July 23, 1940. Box 6, Folder D, Entry 146 Office of Administrator, Records Analysis Division, Historical Monographs Prepared Outside Division, RG169, NACP. The chief executive of the ANMB was the Assistant Secretary of the Army—although he nominally, but not in reality shared the leadership of the Board with the Assistant Secretary of the Navy. However, Roosevelt, at Stimson's request, was in the process of replacing Assistant Secretary Louis Johnson, who had already left Washington, with Robert Patterson, who had been appointed by not yet confirmed, leaving the ANMB without its most important political leader at this point. Until this week, Stimson did not even know what the ANMB was.

control the exportation of aviation gasoline and lubricating oil for aircraft engines, in order to conserve these materials in the interest of the national defense."[337]

Green included a draft order and regulations for the President to sign, adding aviation motor fuel, aviation lubricating oil, and tetraethyl lead to the list of commodities under export controls. Maxwell circulated a draft to members of the Policy Committee that closely followed Green's version, though with some modifications.

The following afternoon, Morgenthau called Edward Stettinius, Jr., the chief of the raw materials division of the Advisory Commission of National Defense (NDAC). Morgenthau began, "Look, if either the President or I were to ask you on an hour's notice to give us a justification for clamping on an embargo on scrap iron or scrap steel products..., how long would it take you to get it ready?"

"It'd be pretty tough to really justify it," Stettinius replied.

Morgenthau persisted, listing potential justifications. Stettinius suggested that perhaps Morgenthau should discuss it with the State Department.

"Now, listen young fellow," chided Morgenthau, "you haven't been in town long enough to pass the buck to the State Department.... Don't you go Washington on me."

Stettinius acquiesced, promising to have a justification ready within 48 hours.[338]

The next day, Stettinius delivered a copy of an NDAC memorandum in which his staff indicated that the current supplies of "prompt scrap" immediately available to steel producers had recently fallen dangerously close to a calculated "adequate safety margin," recommending the

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[337] "Memorandum to Administrator of Export Control," dated July 22, 1940, Box 6, Folder D, Entry 146 Office of Administrator, Records Analysis Division, Historical Monographs Prepared Outside Division, RG169, NACP.

[338] Morgenthau, Diary Book 285, 366.

immediate implementation of conservation measures.[339] However, the memo's recommendations were not supported by the data provided. The NDAC estimated that the domestic steel industry would need around 33 million tons of scrap annually to meet projected requirements, but exports in the first five months of the year had only totaled one million tons. Japan accounted for only half of that amount, or slightly over 3 percent of total scrap requirements. Clearly, exports to Japan were insufficient to cause a scrap shortage.

That afternoon, Stimson called Morgenthau to report that General John DeWitt, the senior Army commander on the West Coast, had sent an urgent message to the War Department stating that Japan was "effecting a practical corner on the aviation gasoline market." He warned, "Quantities being bought will strip market and productive capacity for months to come. If these purchases are all consummated, there would be a shortage of aviation gasoline should the Army and Navy need it in quantity during the next six to nine months." Stimson received the report and immediately notified both the President and Morgenthau.[340]

Maxwell circulated a draft order that largely conformed to State's proposal, with some technical revisions recommended by the NDAC. The next day, Herbert Gaston, the Assistant Secretary of the Treasury, asked Maxwell to expand the order to include all "petroleum and petroleum products" and to add "scrap iron and other scrap metal."[341] Maxwell convened his inter-agency Policy Committee to consider the Treasury Department's recommendation. The policy committee approved Treasury's suggestions, and the AEC staff revised the draft order for

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[339] Ibid., Diary Book 286, 19-23.

[340] Ibid., 86, 234.

[341] "Memorandum to Lieutenant Colonel Maxwell: Administrator of Export Control, Subject: Draft Proclamation and your memorandum of July 24th," dated July 25, 1940, Box 6, Folder D, Entry 146 Office of Administrator, Records Analysis Division, Historical Monographs Prepared Outside Division, RG169, NACP.

the President's signature. The President sent a copy of the signed order to Welles for countersigning. The new version took Welles by surprise. He immediately called the President and asked him to reconsider the order. The President suggested they could issue a clarifying order the following day during the cabinet meeting.

When Morgenthau learned of Welles's intervention with the President, he called Ickes. He stated, "I'm going to need a lot of help in Cabinet," referring to their upcoming cabinet meeting with the President. "The State Department has gone to the President on this proclamation on oil and oil products, and they're trying to get him to change it."[342]

At the cabinet meeting that afternoon, the President refused to intervene in the conflict between Morgenthau and Welles, insisting that the cabinet work out a solution. Hopkins advocated for moderation and may have been the decisive influence on the cabinet. Morgenthau ultimately backed down. Instead of issuing a new order, Maxwell released a clarifying regulation that limited controls on petroleum to aviation gasoline and aviation-grade oil lubricants, categorizing scrap as the highest quality.[343]

After the meeting, Morgenthau informed his aides that, although he was disappointed with the State Department, he had achieved seventy-five percent of their goals. "It was redrafted. We got everything except crude, and we never would have gotten that if we hadn't forced the situation. So, it is all right. We got seventy-five percent of it."[344]

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[342] Morgenthau, Diary Book 287, 151-153.

[343] FRUS, 1931-41, II Japan, ed. Joseph V. Fuller (Washington, DC: US Government Printing Office, 1943) Document 137 “Regulations Governing the Exportation of Articles and Materials Designated in the President’s Proclamation of July 2, 1940, Issued Pursuant to the Provisions of Section 6 of the Act of Congress Approved July 2, 1940.”

[344] Morgenthau, Diary Book 287, 128.

There were three different draft versions of a document that the President ultimately signed as Proclamation No. 2417 on July 26, 1940. In his diary, Morgenthau claims that the drafts were given to the President between July 19 and July 22. He refers to "this proposed amendment to the outstanding Embargo Proclamation" in a letter to the President dated July 22, which discussed halting oil shipments to Spain.[345] He may have meant his memorandum to the President from July 19, which outlined the concept developed during a dinner with Lord Lothian. There are no other draft amendments noted in his diaries, and Feis, Anderson, Utley, or Barnhart did not cite an actual copy of the document in their histories. As Morgenthau noted in his diary, scrap was not mentioned during the July 19 meeting of cabinet officers and the President.

The second version was the draft prepared by Maxwell, which he circulated to the AEC Policy Committee on July 24. This version was based on the State Department draft that Green gave Maxwell on July 22. It limited the extension of controls to aviation gasoline, aviation lubricants, and tetraethyl lead. The third version, which the President signed, was the one prepared by Maxwell on July 25, after receiving a request from Assistant Secretary Gaston at the Treasury to change the list to include all petroleum products, tetraethyl lead, and scrap iron and steel. This is an important correction because the author of the signed proclamation was Maxwell, not Morgenthau, even though Maxwell based the draft on Morgenthau's recommendation.

Feis, Anderson, Utley, and Barnhart produced varying accounts based on their use of records from the State Department, Treasury Department, NDAC, and AEC. However, all these accounts overlook a significant event that challenges their assumptions about Maxwell's role: the AEC Policy Committee meeting on July 25, where the committee discussed and approved

[345] Ibid., Diary Book 285, 185.

revisions to the final draft of the signed proclamation. This committee included senior representatives from each department and agency involved in the debate over the proposed extension of controls: State, Treasury, the ANMB, and the NDAC. Feis and Green represented the State Department and were fully aware of the parameters of the debate, while Gaston represented Treasury.

This leads to two plausible conclusions. The first is that the State Department representatives approved the broader controls. As future events would show, both Feis and Green proactively advocated for the application of export controls specifically for economic warfare purposes. In some instances, they were more aggressive than Maxwell himself, making this possibility credible. The second possibility is that the State Department members were absent from the Policy Committee meeting. If true, this would imply that Maxwell was willing to make a significant policy decision regarding the extension of export controls without consulting the State Department or possibly against its advice. This explanation is also consistent with Maxwell's subsequent actions.

The publication of the more limited regulations, which restricted controls to higher grades of aviation gasoline, tetraethyl lead, and only the highest category of scrap, did not fully resolve the policy debate and introduced administrative challenges for the AEC. One immediate challenge Maxwell faced was fine-tuning the technical aspects of control to align with the President's desired policy. The initial definition of aviation gasoline published on July 26 was too broad, encompassing nearly all crude oils and gasolines.[346] It quickly became apparent to

[346] "Memorandum To: Mr. Thomas Hewes, From: Dr. C.C. Monrad, Subject: Export control of petroleum products," dated October 9, 1949, Leonard to Hewes dated October 9, 1940, Box 6, Folder D, Entry 146 Office of Administrator, Records Analysis Division, Historical Monographs Prepared Outside Division, RG169, NACP.

Maxwell that the volume of export license applications resulting from the current definition would overwhelm the application processing capacity of the Division of Controls. Consequently, he revised the licensing instructions to include a more limited technical definition.[347]

Maxwell's intent was to block the export of higher-octane aviation gasoline to potential enemies, as its octane rating would enable modern aircraft engines to produce greater horsepower, leading to significant improvements in combat aircraft performance. He also aimed to prevent the export of necessary blending agents, already refined higher-octane petroleum fractions, and other chemical agents that could be combined with tetraethyl lead to create high-octane aviation gasoline. The Japanese lacked the refining technology to produce aviation gasoline with an octane rating above 87 without adding tetraethyl lead. However, they did possess the capability to manufacture tetraethyl lead, so even the more limited definitions would significantly impact Japanese air power.

Monrad explains the 3% clause: “The regulation was then set up which to put under control all materials yielding 87 octane with 3 c.c.'s of lead or any material from which by commercial distillation more than 3 percent of this type of product. From a practical standpoint this regulation is putting under control practically all crude oils and gasolines since very few of these do not contain at least 3 percent of material in the boiling range 75º to 350°F which ethylizes to 87 octane. This is due largely to the fact that light constituents of any crude oil or gasoline, particularly the butanes and pentanes have octane numbers between 70 and 85 and ethylize readily to 87 with 3 c.c.'s of lead.”

[347] “Control of Export of Petroleum Products,” dated June 1941, Box 6, Folder D, Entry 146 Office of Administrator, Records Analysis Division, Historical Monographs Prepared Outside Division, RG 169 Records of the Foreign Economic Administration, National Archives at College Park, MD. "Aviation Motor Fuel; i.e., high octane gasoline with an octane number by the A.S.T.M. Knock Test Method of 87, or more; or gasoline which with the addition of tetraethyl lead up to a total content of 3 c.c.'s per gallon, or less, will yield an octane number by the A.S.T.M. Knock Test Method of 87 or more; or synthetic iso-octane, isopentane, neohexane, or alkylates; or mixtures which are the result of mixing iso-octane, iso-pentane, neohexane, or alkylates with other materials, including crude oils."

Maxwell recognized that "the specified limits on octane rating clearly cover gasoline (including blending stocks) which is suitable for American military aviation, but may allow the export of gasoline which, while outside the defined limits, is still usable in a good many types of foreign aviation motors."[348] Debate over the scope of controls on gasoline would continue for the next year. Maxwell continued to collaborate with the NDAC and representatives from the American oil industry to refine technical definitions and instructions.[349] The fundamental technical challenge Maxwell faced was the possibility of obtaining high-octane components from various petroleum products that could theoretically be used to produce high-octane aviation gasoline. Maxwell and the AEC sought to minimize the number and quantity of petroleum products that could be easily processed into aviation gasoline while generally permitting products that could only be further processed into meaningful volumes of high-octane gasoline at considerable cost or difficulty.[350]

In his instructions to the Division of Controls, Maxwell adjusted the geographic destinations to which aviation gasoline could be exported. His initial instructions, publicized in a White House press release, restricted aviation gasoline exports to the Western Hemisphere. The intent behind these instructions was to ensure that the British could continue to import American aviation gasoline after it had first been exported to Canada. However, after the British expressed concern about the language, Maxwell quickly revised his instructions to block exports only to Axis-controlled Europe, the Soviet Union, and Japan.

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[348] Ibid.

[349] "Memorandum To: Mr. Thomas Hewes, From: Dr. C.C. Monrad, Subject: Export control of petroleum products."

[350] "Control of Export of Petroleum Products."

By July 1940, Germany and the Soviet Union had already developed the capability to manufacture tetraethyl lead and possessed ample supplies of scrap or pig iron for steelmaking. While both countries had the technology to refine higher-octane aviation gasoline of around 87 octane when combined with tetraethyl lead, neither had the refining capability to produce 100-octane gasoline from crude oil. Germany was in the process of developing 100-octane synthetic aviation gasoline from coal, but this fuel would not be suitable for widespread deployment until late in the war. Thus, the European Axis and the Soviets were only potentially interested in aviation gasoline and aviation-grade lubricants, while Japan required gasoline, lubricants, tetraethyl lead, and scrap.

When Maxwell issued his destination instructions, the Administration had already blocked the export of oil and aviation gasoline to Spain and Portugal. Although the British naval blockade had largely collapsed with the fall of France, the Royal Navy still controlled the entry points to the North Sea used by merchants en route to Sweden, allowing Britain to control petroleum delivery to that country. Before Roosevelt lifted the oil embargo on Spain in September, Maxwell added all European neutrals and Spanish colonial possessions in Africa and the Atlantic to the list of forbidden export destinations. This ensured that while Spain could import restricted amounts of oil, it could not import aviation gasoline that might be reexported to the Axis.

There was still one conspicuous gap in the current controls on aviation fuels and lubricants. The initial "moral embargo" implemented by the State Department in December 1939 focused on preventing the transfer of manufacturing technology and equipment for producing high-octane aviation gasoline. However, these elements were omitted from the President's July 26 proclamation and the subsequent clarifying regulations. On August 7, the State Department

asked Maxwell to add "plans, specifications, and descriptive or technical information of any kind," as well as equipment that could be used or adapted for the production of aviation gasoline or tetraethyl lead, to the control list.[351] After some revisions by the Advisory Committee, which added designs for aircraft and aircraft engines, Maxwell sent the order to the President for signature. In a cover note to General Watson, the President's secretary, he indicated that the new proclamation was needed to "clear up remaining items under the 'moral embargo.'"[352] The President signed the proclamation, adding technical information and equipment to the control list, on September 12.[353]

III. Iron and Steel Scrap

On July 29, Maxwell met with his advisory committee to discuss controls on aviation gasoline, tetraethyl lead, and iron and steel scrap. The committee recommended that, despite the existing controls on high-quality scrap, Maxwell should issue licenses without any restrictions.[354] This recommendation was surprising, given that Treasury Assistant Secretary Herbert Gaston was a member of the committee and the Treasury Department strongly advocated for a total embargo on all scrap exports to Japan. However, two months later, the White House announced a total embargo on all iron and steel scrap exports, except to the British Empire, Commonwealth,

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[351] "Memorandum for Administrator of Export Control" dated August 7, 1940, and "Memorandum for Chief, Division of Controls, Department of State" dated September 3, 1940, Box 6, Folder D, Entry 146 Office of Administrator, Records Analysis Division, Historical Monographs Prepared Outside Division, RG169, NACP.

[352] "Memorandum for General E.M. Watson, The White House, Subject: Draft of Proclamation" dated September 4, 1940. Box 6, Folder D, Entry 146 Office of Administrator, Records Analysis Division, Historical Monographs Prepared Outside Division, RG169, NACP.

[353] *FRUS,* 1931-1941, II Japan, Document 141 "Proclamation No. 2423, Signed by President Roosevelt, September 12, 1940."

[354] "Meeting No. 3, Advisory Committee," dated July 29, 1940, Box 271, Folder Japan 401 Thru 411, Entry 98 Office of Administrator of Export Control July 1940-May 1942, Central File (Area), RG169, NACP.

and Latin American Republics. Historians have attributed this reversal to the American response to the Japanese invasion of northern Indochina and Japan's accession to the Tripartite Pact, which officially aligned them with the Axis powers, or to domestic steel production requirements.[355]

However, these interpretations are only partly correct. President Roosevelt had already initiated plans to implement broader export controls on iron and steel scrap and significantly limit actual exports to Japan. Even if the Japanese had not occupied the northern part of Indochina and subsequently joined the Axis, it is likely that the President would have imposed a partial embargo, limiting exports to Japan to prewar levels. This amount would have been insufficient to meet the full demands of Japan's current war economy.

It is unclear when exactly the President began seriously considering stricter controls on scrap, but the NDAC likely discussed recommending broader controls by the end of August.[356] On September 5th, the NDAC confirmed that new controls were being discussed. That same day, the NDAC addressed scrap in a meeting with the President. The following day, the President discussed expanded scrap controls with his cabinet. The next Wednesday, in a letter to Maxwell, Morgenthau stated that the President "asked me to look into the question of a more effective

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[355] For example, see Robert A. Divine, *The Reluctant Belligerent: American Entry into World War II* (New York: John Wiley & Sons, 1965), 100–101., Feis, 101-106, and Jonathan G. Utley, *Going to War with Japan, 1937–1941* (Knoxville: University of Tennessee Press, 1985), 105–7. Utley concluded, “To the casual observer it appeared to be a specific response to further Japanese aggression. But to the insider, those in the iron and steel industry as well as those involved in the decision to impose the embargo, it was a domestic economic measure that had to be imposed sometime. Only its time hinged on the international situation."

[356] “Memorandum for W.A. Harriman, Advisory Commission to the Council of National Defense, Subject: Control of Iron and Steel Scrap” dated August 31, 1940, Box 6, Folder D, Entry 146 Office of Administrator, Records Analysis Division, Historical Monographs Prepared Outside Division, RG169, NACP. On August 31, Maxwell sent a memo to Averill Harriman, who represented Stettinius and the Raw Materials section of the NDAC on the AEC Advisory Committee inquiring if new controls on iron and steel scrap were being contemplated. The memo indicates that Maxwell had already heard that discussions were taking place at the NDAC.

control of the exportation of iron and steel scrap, provided such control would not prevent the exportation of iron and steel scrap to Great Britain." Morgenthau attached a draft order for the President to sign, which included all iron and steel scrap.[357]

Even before the President met with the NDAC the previous week, Maxwell had prepared a draft order that would effectively place all scrap under export control.[358] The next day, he responded that Morgenthau's letter "I believe states our common objective." Maxwell explained that he was currently conferring with the State Department on the matter.[359] On the 13th, Maxwell's advisory committee recommended restricting scrap exports to Japan by establishing a quota that "should be kept as low as possible" and limiting scrap shipments to Japan to West Coast ports. Since half of Japan's scrap orders originated from Atlantic ports, this would effectively restrict the amount of scrap Japan could acquire. Furthermore, to limit Japan's ability to purchase American scrap through other Latin American countries, exports to these countries would also be limited by quotas based on historical "normal business."[360] Given that Feis and Green were both members of the advisory committee, this policy likely represented the position of the State Department as well as a policy acceptable to the relevant cabinet departments, the military, and the NDAC. Given this consensus, it is highly likely that the President would have implemented this policy even if Japan had taken no action against Indochina.

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[357] Morgenthau to Maxwell, dated September 11, 1940, Box 6, Folder D, Entry 146 Office of Administrator, Records Analysis Division, Historical Monographs Prepared Outside Division, RG169, NACP.

[358] Utley, 104.

[359] Maxwell to Morgenthau, dated September 12, 1940, Box 6, Folder D, Entry 146 Office of Administrator, Records Analysis Division, Historical Monographs Prepared Outside Division, RG169, NACP.

[360] "Advisory Committee, AEC," dated September 13, 1940. Box 271, Folder Japan 401 Thru 411, Entry 98 Office of Administrator of Export Control July 1940-May 1942, Central File (Area), RG169, NACP..

On August 14, the Division of Controls issued a memorandum stating that the State Department would only support restrictions on scrap exports to Japan if scrap shortages were undermining the national defense program. Analysts at the NDAC discovered that such a shortage was developing. Similar to the memo Stettinius had prepared for Morgenthau a few weeks earlier, the August shortage also appears to have been a pretext to justify tighter restrictions for economic warfare purposes publicly.[361] Three weeks after the NDAC identified the scrap shortage, the ANMB reported to Maxwell that there was no scrap shortage and that export restrictions could not be justified by national defense requirements.[362] Given the close coordination between the AEC and the Division of Controls, it is likely that the State Department was aware of the ANMB's contradictory assessment. Therefore, it is unlikely that the change in the State Department's position was due to the NDAC's claims of a scrap shortage.[363]

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[361] Utley, 106. In addition to Stettinius's raw materials division, Leon Henderson, NDAC member responsible for price stabilization was actively pushing for greater export control on scrap, and later on all iron and steel. Henderson argued that rising scrap, iron and steel prices justified greater restrictions on exports to Japan. However, completely halting all exports of scrap, iron, and steel to Japan would likely have had a minimal impact on price inflation as Japan's share of the demand was relatively small compared to the requirements of the recently approved national defense rearmament program and the exports to support the war economies of Great Britain and Canada.

[362] "Memorandum for the Administrator, Export Control. Subject: Control of Scrap Iron and Steel," dated September 5, 1940, Box 6, Folder D, Entry 146 Office of Administrator, Records Analysis Division, Historical Monographs Prepared Outside Division, RG169, NACP. The Memorandum, signed by COL Hines, stated: "There has been no evidence submitted to the Army and Navy Munitions Board which indicates a material change in the scrap iron and steel situation in the past three months. Therefore, the Board does not believe that the national defense procurement program is being jeopardized by an impending shortage of scrap iron and steel."

[363] *FRUS*, 1940, IV The Far East, Document 646 East "The Ambassador in Japan (Grew) to the Secretary of State." Feis, 101-102, 107. Feis, who was one of the representatives from State on the advisory committee, wrote in 1950, "Of the soundness of the iron and steel scrap embargo as a measure of self-defense, there can be no doubt. The retained scrap was needed at home—though not vitally needed." Feis also indicated that a September 12 memorandum from the US Ambassador to Japan, Joseph Grew, suggesting that that Roosevelt Administration might

The President discussed expanded restrictions on scrap at cabinet meetings on the 13th but did not make a decision until the next cabinet meeting on the 19th, after the Japanese had delivered an ultimatum to French authorities in Indochina. In response to Japanese actions, Roosevelt decided to completely cut off all scrap exports to Japan instead of limiting exports to prewar amounts. The embargo was announced on September 26, after Japanese troops arrived in Indochina, and would not take effect for an additional three weeks, during which all previously approved licenses would be revoked.[364] The following week, the President signed the revised proclamation drafted by Maxwell, codifying the effective embargo.[365]

Morgenthau was worried about the State Department. "We've just been waiting on Hull," he complained to Henderson, who responded that they could work through Maxwell and the AEC to bypass Hull. "Well, we can handle it under the Export Control thing, you see, and make it work under that general arrangement, so I'll let you know how we make out on this."[366] Neither Morgenthau nor Henderson believed that Maxwell and the AEC were under the direction of the State Department and Henderson felt he had more influence on the AEC through the NDAC than Hull had through the Division of Controls.

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need to take more aggressive measures against Japan—Feis described as the "green light" message—may have caused a shift in the State Department's strategic estimate of situation. This memo was not received by the State Department until 7:12 PM on September 12, so it was certainly not a factor in discussions between Maxwell and State on the 12th and it is questionable whether it influenced the advisory committee discussions on the 13th.

[364] *FRUS*, 1931-1941, II Japan, Document 144 "Press Release Issued by the White House on September 26, 1949."

[365] Ibid., Document 145 "Regulations Governing the Exportation of Articles and Materials Designated in the President's Proclamation of July 26, 1940, Issued Pursuant to the Provisions of Section 6 of the Act of Congress Approved July 2, 1940." The new regulation simply adjusted the definition of iron and steel scrap in the July 26 order to read "*Iron and Steel Scrap*.—All iron and steel scrap of every kind and description, classified or unclassified."

[366] Morgenthau, Diary Book 307, 392.

IV. Axis Attempts to Evade Controls

As export controls became more restrictive, their targets—Germany, Japan, Italy, and the Soviet Union—sought ways to circumvent these measures. American petroleum companies collaborated with Maxwell and the AEC to the extent that several companies assisted in developing technical instructions to guide customs agents in enforcing the controls. They also helped enforce the controls by notifying the AEC or other agencies of potential violations. As early as August, intelligence collectors began reporting instances of American companies exporting controlled materials to Axis agents in Latin America for re-export. Often, the American exporters were unaware of the Axis or Soviet connections of their overseas buyers, though there were some deliberate attempts at evasion.[367] For instance, one oil exporter mixed aviation gasoline into a shipment of crude oil to avoid detection; once the oil reached Japan, the aviation gasoline could be easily separated from the crude.

In mid-September, FBI Director J. Edgar Hoover warned Maxwell that Japanese agents were employing various subterfuges to obtain plans for the construction of oil-cracking plants that would enable Japan to produce 100-octane aviation gasoline domestically. Germany and the Soviet Union also had agents in the U.S. trying to acquire confidential information on technologies for producing higher-octane gasoline.[368] The White House and the Military Intelligence Division later sent Maxwell similar reports identifying additional efforts that the

[367] "Control of Export of Petroleum Products." The AEC Central File and AEC Central File Japan contain numerous examples.

[368] "FBI to AEC," dated September 13, 1940, Box 271, Folder Japan 401 Thru 411, Entry 98 Office of Administrator of Export Control July 1940-May 1942, Central File (Area), RG169, NACP.

initial FBI investigation had overlooked.[369] Over the next several months, several companies identified by the FBI requested export licenses to ship oil refining and high-octane gasoline production technology to Japan. Maxwell and the AEC subsequently denied numerous licenses for equipment that could be used in oil refining or gasoline production processes.

Despite Maxwell revising the technical definition of controlled aviation gasoline and its components by removing the 3% clause, the AEC continued to block the export of high-grade California crude oil, which could be refined to produce quantities of 87-octane aviation gasoline. In one instance, the AEC blocked the export of 66,000 long tons of California crude oil because its chemical composition included high-octane fractions suitable for the production of 9,900 long tons of 87-octane gasoline.[370] California crudes typically contain better high-octane fractions than crude oils from other regions in the United States. The AEC enforced controls on aviation gasoline exports, preventing Japan from importing crude oil from several California oil fields unless that crude oil had been partially refined to remove the higher-octane fractions.

At the beginning of October, Army Military Intelligence discovered that Japan had completed its first facility capable of producing tetraethyl lead domestically. Although Japanese production capacity never exceeded 5 percent of the U.S. rate, it was sufficient to fully meet Japan's wartime requirements.[371] This report invalidated one of the key assumptions behind the

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[369] "White House to AEC, Subject: Japanese Negotiations for Aviation Gasoline Formula," dated October 9, 1940, Box 271, Folder Japan 401 Thru 411, Entry 98 Office of Administrator of Export Control July 1940-May 1942, Central File (Area), RG169, NACP.

[370] "Tide Water Associated Oil Co.," dated November 15, 1940, Box 271, Folder Japan 401 Thru 411, Entry 98 Office of Administrator of Export Control July 1940-May 1942, Central File (Area), RG169, NACP.

[371] "MID to AEC Subject: Reserve Stock of Tetraethyl Lead in Japan," dated October 1, 1940, Box 271, Folder Japan 401 Thru 411, Entry 98 Office of Administrator of Export Control July 1940-May 1942, Central File (Area), RG169, NACP. "It is reported that Japan has discovered a method of manufacturing tetraethyl lead of which they

controls targeting Japan's air power. Without the ability to domestically manufacture tetraethyl lead, Japan would not be able to produce aviation gasoline suitable for modern combat aircraft from its own oil refineries—or any refineries it might capture in a potential southward advance. American export controls could now only limit the amount of gasoline in the 87-91 octane range available to Japan. In response, Maxwell requested that the President add the precursor chemicals needed to manufacture tetraethyl lead to the control list.[372]

Even in early August, while the Division of Controls was reporting that the State Department would only support restrictions on scrap on grounds of national defense, the Division warned Maxwell that Japan was importing scrap from the Philippines—a warning echoed by both State and military intelligence several times over the following months. Maxwell and the State Department also worked to block indirect channels. Japanese and Axis agents established covert networks through Latin American countries to re-export scrap, using intermediary corporations to evade export controls. When these efforts were detected by intelligence collectors, the AEC rejected export license applications if the shipment had not yet left the country, and the intermediary corporation or agent was added to a secret blacklist. If there was evidence or strong suspicion of American exporters being involved, they were added to a separate, highly confidential blacklist. Future license applications involving these parties were subsequently denied.

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have no reserve stock. If this is true, they will have unlimited possibilities after the United States patent protection expires the end of this year."

[371] After the war, the United States Strategic Bombing Survey confirmed that Japanese had only began producing tetraethyl lead in September 1940. USSBS 50 *Chemicals in Japan's War: Appendix to the Report*, 63.

[372] *FRUS*, 1931-1941, II Japan, Document 158 "Proclamation No. 2451, Signed by President Roosevelt, December 20, 1940." These precursors were bromine, ethylene, and ethylene dibromide. USAAF, 39.

In October, a suspected Axis or Soviet agent attempted to purchase 50,000 tons of scrap from the Mexican government, but American intelligence officers, working with Canadian authorities, discovered that the bidding company was a fictional front, leading the Mexican government to block the sale.[373] The Army military attaché in Mexico reported that the Japanese were transporting scrap hundreds of miles to coastal ports where no government surveillance system was in place, paying well above market price for any grades of scrap. [374]

In another instance, intelligence collectors stationed at the American embassy in Colombia reported that Japan was attempting to purchase scrap iron in a barter deal for rayon yarn. The State Department notified Maxwell, who asked Stettinius's division at the NDAC to arrange for a U.S. buyer to purchase the scrap. Meanwhile, the State Department requested the Colombian government to delay the Japanese purchase. The Colombian government announced it would halt all scrap exports "in order to conserve domestic supplies of industrial raw materials" and informed the Japanese agents that there would be no further consideration of the deal. A few days later, the American buyer purchased the scrap.[375]

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[373] "State to AEC," dated October 1, 1940, Box 271, Folder Japan 401 Thru 411, Entry 98 Office of Administrator of Export Control July 1940-May 1942, Central File (Area), RG169, NACP.

[374] "MID to AEC," dated February 11, 1941, Box 271, Folder Japan 401 Thru 411, Entry 98 Office of Administrator of Export Control July 1940-May 1942, Central File (Area), RG169, NACP.

[375] "Enclosure No. 1, Despatch No. 1244," dated December 3, 1940, Division of Controls Memorandum to the Administrator of Export Control, dated December 9, 1940, "No. 1262 Bogota, Columbia, Subject: Columbian Government is Restricting Exports of Scrap Iron," dated December 12, 1940, "Memorandum for Mr. A.I. Henderson, National Defense Advisory Commission, Subject: Purchase of Scrap Iron," dated December 13, 1940, "No. 1262 Bogota, Columbia, Subject: Columbian Government is Restricting Exports of Scrap Iron," dated December 12, 1940, Box 271, Folder Japan 401 Thru 411, Entry 98 Office of Administrator of Export Control July 1940-May 1942, Central File (Area), RG169, NACP.

Even as controls on scrap were just being implemented, the President increasingly considered expanding the controlled list again to include all iron and steel. Maxwell pointed out that Japan could partially meet its scrap needs by importing pig iron instead.[376] Two days after the controls went into effect, Leon Henderson asked the President to completely embargo all ferrous materials, ferroalloys, and ore exports. "I believe in our recent export policy," he wrote in a memo to the President, "we have been too complacent about our needs." Noting that exports of iron and steel had been increasing, he warned once again of a possible shortage and a rise in prices in the steel industry.[377]

The President had tasked Henderson with recommending policies to support price stabilization, a critical strategic function in managing the acceptability of Roosevelt's Grand Strategy. However, exports of iron and steel, including scrap, to Japan, the Soviet Union, or likely exporters to the European Axis—specific targets of economic warfare measures—were small enough that their impact on prices was negligible compared to growing national defense requirements and the demands of Great Britain and Canada.

The following day, Averell Harriman from Stettinius's division at the NDAC informed Maxwell that the NDAC was recommending the addition of iron and steel to the list of controlled materials. The memo was countersigned by Colonel Hines of the ANMB, which was noteworthy because, prior to this point, the ANMB had never formally endorsed efforts to control materials

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[376] Michael A. Barnhart, *Japan Prepares for Total War: The Search for Economic Security, 1919–1941* (Ithaca, NY: Cornell University Press, 1987), 195.

[377] "Memorandum from Leon Henderson to the President, Subject: Ferrous materials, ferro-alloys and their ores and concentrates, and semi-finished and finished products of iron and steel (not including machinery, vehicles and other advanced manufactures of iron and steel)," dated October 18, 1940, Box 6, Folder D, Entry 146 Office of Administrator, Records Analysis Division, Historical Monographs Prepared Outside Division, RG169, NACP.

that did not strictly meet its criteria for strategic or critical raw materials or materials that might soon meet that definition based on projected future requirements.[378] In December, the ANMB published an updated list of strategic and critical raw materials, which did not include iron, steel, or any ferrous material, although it did include every important ferroalloy.[379]

On November 12, Maxwell provided William Knudsen, the NDAC member overseeing industrial production, with a draft of the presidential proclamation that would place iron and steel on the control list. Henderson and Stettinius, the other relevant NDAC commissioners, both supported the expansion of controls. He informed Knudsen that Secretary of State Hull preferred to control iron and steel exports through a priority system, allowing producers to sell only to industrial customers or exporters with a sufficiently high priority rating. However, Maxwell informed him that this approach would not work because it would take too long to implement.

The President signed the proclamation on December 10, with controls taking effect at the end of the month.[380] Ten days later, he signed a second proclamation extending controls over a number of items. New controls targeting Axis and Soviet air power included the precursor chemicals for tetraethyl lead and equipment and plans for the production of aviation lubricating oil. Controls on abrasives and tools incorporating diamonds, along with original controls on industrial diamonds, targeted the Axis and Soviet metalworking industry and complemented the

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[378] "Memorandum from W.A. Harriman to LTC Russell L. Maxwell, Subject: Iron and Steel," dated October 19, 1940, Box 6, Folder D, Entry 146 Office of Administrator, Records Analysis Division, Historical Monographs Prepared Outside Division, RG169, NACP.

[379] "Need for Strategic and Critical Raw Materials."

[380] *FRUS*, 1931-1941, II Japan, Document 155 "Proclamation No. 2449, Signed by President Roosevelt, December 10, 1940."

near-total restriction on machine tool exports to these countries.[381] The addition of the critical ferroalloy cobalt, used in several grades of special steels for weapon production, reinforced the recent iron and steel embargo. Nickel and zinc would be added on January 10, 1941. At that point, all significant ferroalloys were under control.[382]

In contrast to the complicated path of the first expansions to the control list at the end of July and late September, primarily aimed at targeting Axis air power and munitions industries, the subsequent flurry of expansion orders reflected changing circumstances that altered strategic factors of risk and acceptability, allowing Roosevelt greater freedom to conduct economic warfare. First, and likely most importantly, the President had secured the future of his Administration for at least another four years after winning re-election for an unprecedented third term on November 5. He was now less constrained by public acceptability of his actions.

Second, the future of Great Britain appeared more secure. By the end of September, it was increasingly clear that Britain had survived the German bombing campaign in the Battle of Britain, and fall and winter weather along the English Channel would delay a German amphibious invasion until at least the following spring. In the Pacific, the Japanese had limited their feared southward advance to northern Indochina—far enough away to not directly threaten British or Dutch possessions in Southeast Asia. Trade negotiations over oil, iron ore, rubber, and other materials with the Japanese concluded without triggering war. To some extent, Great

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[381] As a key method of shaping, fitting, and finishing metal components, abrasives were so important to the munitions industry that they were seriously considered as a target system for American strategic bombing later in the war.

[382] Chromium, manganese, molybdenum, tungsten, and vanadium were on the original list of controlled materials signed on July 2, 1940.

Britain had reversed its earlier caution and was now advocating for more aggressive economic warfare measures.

V. Machine Tools and Requisitioning

The naval expansion bills created several immediate production bottlenecks for shipbuilders and naval armament producers, with machine tools being the most significant.[383] Among these were large, highly specialized tools, including massive lathes required for boring out gun tubes and breeches of large-caliber naval artillery. Some of these machine tools could take up to a year to manufacture, constraining naval expansion until they were produced. At the same time, the Soviet Navy was undergoing its own expansion and had ordered many machine tools from U.S. manufacturers. Some of these machines were completed and being prepared for shipment just as Congress was funding the "Two-Ocean" fleet expansion, which increased the Navy's demand for them.

Anticipating the passage of HR 9850, which included export control provisions, the Secretary of the Navy asked Morgenthau to instruct his customs agents to delay the shipment of the machine tools from New York to the Soviet Union. When the law was enacted on July 2, the tools became subject to export controls, and the Navy, via the ANMB, requested that Maxwell not approve their export.[384]

If the U.S. manufacturer had retained title to the machine tools, the AMNB, acting through Knudsen on the NDAC, could have directed the manufacturer to transfer ownership to another U.S. munitions producer. However, ownership had already been transferred to Moscow.

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[383] "An Historical Record of Export Control," 32.

[384] "Memorandum for Captain A.B. Read, Subject: Machine Tools for Export- Title Held in Foreign Countries," dated July 8, 1941, Box 6, Folder E, Entry 146 Office of Administrator, Records Analysis Division, Historical Monographs Prepared Outside Division, RG169, NACP.

The Navy and the ANMB believed that once the AEC denied the Soviet state-owned purchasing corporation, the Soviets would sell the machinery to the Navy rather than allow it to rust in American warehouses.

Despite this expectation, the Soviets refused to sell. Captain Almy, the senior naval officer on the ANMB, complained a week later, "I have checked with the Judge Advocate General's office and there appears to be no law whereby this tool can be acquired by the Navy or a designated contractor. On the basis of present information, the owner can leave it in storage until such time as an export license can be obtained. It is believed that some way should be found whereby this tool can be acquired and placed readily in our production lines."[385]

The solution the ANMB settled upon was to coerce the Soviets into selling. The Board asked Maxwell to block the export of all materials and machine tools subject to licensing to the Soviet Union until the Soviet government agreed to sell the needed machine tools.[386] Maxwell concurred and instructed the Division of Controls to disapprove all licenses for Soviet exports.[387] The NDAC also supported the Navy's position. However, the State Department immediately objected. Joseph Green, the head of the division, informed Maxwell that the Department opposed any further restrictions on exports to the USSR at that time, as it could lead to serious difficulties in the government's relations with the Soviet Union.[388]

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[385] Ibid.

[386] "To: Administrator of Export Control, Room 2068, Munitions Bldg. Subject: Russian Munitions Exports," dated July 11, 1940, Box 6, Folder E, Entry 146 Office of Administrator, Records Analysis Division, Historical Monographs Prepared Outside Division, RG169, NACP.

[387] "Memorandum for Mr. Charles W. Yost, Subject: Machine Tool Export Licenses (Russia)," dated July 30, 1940, Box 6, Folder E, Entry 146 Office of Administrator, Records Analysis Division, Historical Monographs Prepared Outside Division, RG169, NACP.

[388] "Division of Controls Memorandum, The Administrator of Export Control," dated July 13, 1940, Ibid.

In response to State's objections, Secretary of the Navy Frank Knox personally pressed Cordell Hull, the Secretary of State, on the matter. Knox countered State's concerns, stating, "I am of the opinion that it would be prejudicial to the national interests to grant export licenses for any of these items."[389] State responded that Maxwell had the ultimate authority to decide whether to align with State or the Navy.[390]

In a memo to Knox, Maxwell affirmed that he would continue to side with the Navy despite State's objections. "With the exception of applications from Amtorg, clearances are being given for the issue of export licenses for machine tools not desired by the Munitions Board. In the Amtorg cases, no licenses are being issued at present." was not unsympathetic to State's position. He added, "Any further delay in the release of Amtorg items not required for the Munition Program is a source of considerable embarrassment, and it will be greatly appreciated if some form of relief can be provided at an early date."[391]

The Soviets still refused to sell. In response, the Navy proposed new legislation that would authorize the President to requisition machine tools without the owner's consent. Congress began considering the new legislation at the end of July.[392]

Facing protests from the Soviet Ambassador and with the requisition plan progressing through Congress, Undersecretary Welles, temporarily acting on Hull's behalf, appealed once again to the ANMB and the Navy to release Soviet machine tools that were not needed for

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[389] Memorandum from Secretary of the Navy Frank Knox to the Secretary of State, dated July 19, 1940, Ibid.

[390] Memorandum from R. Walton Moore for the Acting Secretary of State to the Secretary of the Navy Frank Knox," dated July 26, 1940, Ibid.

[391] Memorandum from R.L. Maxwell to the Secretary of the Navy, dated July 31, 1940, Ibid.

[392] "Memorandum for Mr. Charles W. Yost, Subject: Machine Tool Export Licenses (Russia)."

defense.[393] The Navy only slightly relented. The next day, Maxwell informed the Division of Controls that, with the support of the ANMB, he would approve export licenses for a limited number of Soviet machine tools. However, he warned that "no action should be taken by the Department of State in its negotiations with the Russian or other Governments which will operate to prevent revocation of a license once issued."[394]

Maxwell's warning to State foreshadowed a new tactic the AEC would soon employ with increasing frequency against its targets of economic warfare. In deference to diplomatic considerations advocated by the State Department through the Division of Controls, the AEC would initially approve certain export licenses only to revoke them before the machines or materials were actually shipped.

Congress took two more months to consider the proposed requisition legislation, which it passed on October 10. The new law authorized the President "to requisition and take over for the said use or operation by the United States, or in its interest" a broad list of articles and materials.[395] The President promptly delegated the requisitioning power to Maxwell and the AEC. Maxwell quickly established a requisitioning division staffed with retired and reserve Army officers, which was operational by mid-November.[396]

Although the passage of the requisition act meant that the AEC no longer needed to withhold export licenses from the Soviets as leverage in ongoing machine tool purchase

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[393] "Memorandum For: The Secretary of the Navy, Subject: Machine Tools- For Release to Russians," dated August 12, 1940. Ibid.

[394] "Memorandum for Mr. Charles W. Yost, Subject: Exports of Machine Tools to USSR," dated August 13, 1940, Ibid.

[395] "Public- No. 829- 76th Congress, Chapter 836- 3rd Session, HR 10339, An Act," dated October 10, 1940, Ibid.

[396] "An Historical Record of Export Control," 36.

negotiations, Maxwell, with ANMB support, only released a small number of additional machine tools for export. At the end of October, the State Department arranged an in-person meeting between a Soviet delegation, which included Ambassador Constantine Oumansky, K.I. Lukashov, head of the Amtorg Trading Corporation, P.S. Seldiakov, chief of the Amtorg machine tools section, and Maxwell's staff. Representatives from the State Department and NDAC also attended. Maxwell had not approved between 75 and 103 export licenses for Soviet machine tools. Some of the embargoed tools were not scheduled for delivery until 1942, but many, including a complete set for an automotive and tractor factory, had been "rusting" on New York docks for months.

In the transcript of the meeting, the frustration of the Soviet representatives is palpable, as is the evasiveness of Maxwell's staff, who were only present at the beginning of the meeting. Mason Britton, representing the NDAC, asserted that nearly all machine tools were urgently needed in the country, as the US had postponed its preparations to the extent that it had overwhelmed the machine tool industry. He claimed they had already been “very liberal” in approving export licenses.

The Ambassador and Amtorg representatives were well-prepared and presented several arguments for why the AEC should approve their export requests. Oumansky began by questioning the legality of the July 2 export control act, arguing that it should not apply retroactively to equipment for which title had been transferred prior to that date. He noted that Soviet orders occupied only a small portion of America's machine tool manufacturing capacity and that a US tool manufacturer had recently assured them of their ability to meet Soviet needs. Furthermore, he contended that, for diplomatic reasons, the AEC should prioritize Soviet needs in its decision-making. The Amtorg executives pointed out that many of the tools in question

were made with special wiring incompatible with American electrical systems, utilized incompatible metric standards, or were so specialized that they could not be easily repurposed.[397]

To the State Department's frustration, the AEC's cooperation was merely an unconvincing façade. In early January 1941, the Soviet Ambassador lodged a complaint with Welles against the AEC for reneging on their October discussions, accusing the State Department of expanding its "moral embargo" from December 1939.[398] The Soviets had not conceded to alleged US defense needs; Amtorg representatives were refusing to accept service of requisition notices from the AEC, forcing the AEC staff to rely on the State Department to deliver the notices directly to the Soviet Ambassador.[399]

Green, the head of the Division of Controls, appealed to Maxwell on behalf of the State Department. "Mr. Welles has requested me to inform you that in view of the present status of American-Soviet relations it would be helpful if these machines might be released for export to the Soviet Union." The State Department's most pressing concern was obtaining export approval for machinery needed by the Soviet automotive production facility. Green asked Maxwell to follow up with Welles in person.[400]

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[397] "Office of the Administrator of Export Control Committee of Appeals Meeting of the Appeals Committee," dated October 29, 1940, Box 6, Folder E, Entry 146 Office of Administrator, Records Analysis Division, Historical Monographs Prepared Outside Division, RG169, NACP.

[398] "Memorandum of Oral Statement Made by the Soviet Ambassador to the Under Secretary of State," dated January 8, 1941, Ibid.

[399] "Division of Controls Memorandum," dated January 3, 1941, Ibid.

[400] "Division of Controls Memorandum," dated January 14, 1941, Ibid.

Maxwell did not respond for two weeks. At the end of January, he sent a memo to Green stating, "It would be appreciated if you would advise Mr. Sumner Welles, Under Secretary of State, that there is no possibility of reopening these cases" on the grounds of national defense.[401]

After the end of 1940, the ANMB forwarded several additional requests to block the export of machine tools essential for rearmament. Eighty-five percent of these requests were submitted before December 31.[402] Despite this, in mid-February, Maxwell revoked all export licenses for both Soviet and Japanese machine tools that the AEC had previously granted.[403] The State Department protested, but to no avail. Maxwell sent a low-ranking officer from his staff to hear their complaint, but the total embargo remained in place.[404]

In a July 1941 report prepared for Captain Almy, the senior naval officer on the ANMB, the AEC indicated that early in 1941 it had imposed a "definite restriction" on machine tool shipments to the Soviet Union and Japan while simultaneously increasing exports to Great Britain and Canada.[405]

In its first year, the AEC disapproved export licenses for $17.7 million worth of Soviet machine tools and $24.2 million destined for Japan. These amounts were substantial. Combined,

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[401] "Memorandum for Chief, Division of Controls, Department of State, Subject: Requisitioned and Diverted Machine Tools," dated January 29, 1941, Ibid.

[402] "Memorandum for General Maxwell, Subject: Letter from Lieutenant Commander R.E.W. Harrison to Captain Almy, Navy Department, Washington," dated July 12, 1941, Ibid.

[403] "ANMB to AEC Re: cancellation of all export licenses coving exports of machine tools to Russia and Japan," dated February 19, 1941, Box 271, Folder Japan 401 Thru 411, Entry 98 Office of Administrator of Export Control July 1940-May 1942, Central File (Area), RG169, NACP.

[404] "Memo 1st Lt. R.R. Stout to General Maxwell Meeting at State Department, March 1, 1941, re USSR and Japanese Machine Tools," dated March 3, 1941, Ibid.

[405] "Memorandum for General Maxwell, Subject: Letter from Lieutenant Commander R.E.W. Harrison to Captain Almy, Navy Department, Washington."

they represented almost one-third of total machine tool production by value in 1940, or over half of total production in 1938. According to AEC statistics, only $1.6 million in machine tools had reached Japan since July 1940. The AEC allowed a larger amount—tools valued at least $3.1 million—to be shipped to the Soviet Union before the German invasion at the end of June 1941. Ironically, the machine tools for automotive facilities that had been at the center of Soviet complaints since October 1940 were among the first lend-lease shipments, enabling the production of Soviet AFVs.[406]

By the end of September, the AEC had reviewed requests for a total of $20.8 million in Soviet machine tool licenses, rejecting licenses valued at $9.6 million, or 46 percent of the total. In contrast, the AEC denied just over one percent of the $92.8 million in export licenses requested by Great Britain, Canada, and other British Commonwealth nations. Not a single export license for a machine tool destined for Latin America was rejected. Soviet and Japanese tools accounted for 76.2% of all rejected machine tool export licenses by value, with the remainder mainly from Italy, occupied Europe, and European neutrals.[407]

The Navy had also identified several machine tools manufactured for Japanese firms that were needed for the naval expansion program. At the end of August 1940, representatives from the ANMB were close to finalizing an agreement to purchase these tools from Japanese firms and diplomats. Ultimately, however, the Japanese held out for better prices, although the negotiations proceeded "in a friendly and cooperative spirit."[408]

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[406] Ibid.

[407] "An Historical Record of Export Control," 32.

[408] "Department of the Navy Memorandum for Assistant Secretary of the Navy Machine Tool Conference with Japanese Nationals," dated August 30, 1940, Box 271, Folder Japan 401 Thru 411, Entry 98 Office of Administrator of Export Control July 1940-May 1942, Central File (Area), RG169, NACP.

On the day Congress passed the requisition act, Maxwell revoked the export licenses for the desired Japanese machine tools. Later that day, the AMNB reported that they believed the Japanese were already loading those tools for shipment before they could be requisitioned. The ANMB requested State to intervene, but the Department declined, fearing it might provoke a public incident.[409] However, after the requisition act was enacted, Japanese companies became much more willing to sell their contracted machine tools voluntarily. In a 1941 congressional hearing, Maxwell compared the Japanese with the Soviets, stating, "The only difference is the Japanese, if they are denied export, are always willing to sell to our domestic industry, whereas the Russians are unable to sell."[410] As a result, the AEC requisitioned relatively few Japanese tools in the first six months following the passage of the law—only 11, compared to 56 requisitions out of a total of 86 machine tools for the Soviets.[411]

This requisition account is significant for several reasons. First, it clearly demonstrates that Maxwell and the AEC were not subordinate to the State Department. Maxwell repeatedly rejected or only partially complied with the State's appeals to release machine tools for export to the Soviet Union in support of the Department's foreign policy objectives, even when those appeals came from the Under Secretary himself. Second, it illustrates how the AEC disguised controls implemented solely for economic warfare purposes—specifically, to undermine the war economies of actual or potential enemies—behind the diplomatic pretext of national defense needs, even if this disguise failed to fully convince either the Soviets or the Japanese. Lastly, it

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[409] "AEC to State," dated October 10, 1940, Ibid.

[410] "Report of Proceedings: Hearing held before Military Defense Investigating Committee, Special Committee No. 3."

[411] "Office for Emergency Management Office of the Administrator of Export Control Budget: Estimates, Salaries and Expenses Fiscal Year 1942."

serves as an example of economic warfare methods that exceeded what was necessary for national economic mobilization.

Export restrictions were generally applied broadly to machine tools destined for potential enemies in Axis-controlled Europe, the Soviet Union, and Japan. Many of the machine tools for which licenses were denied could not be effectively repurposed for use in American industry. The executives of the Soviet Amtorg Corporation were essentially correct in noting that tools built to operate with metric specifications could not be easily converted to American or British specifications. From the first week of export control, Maxwell approved the export of large numbers of machine tools to Japan on the explicit grounds that they were metric system tools.[412] After the AEC revoked all export licenses for Japanese and Soviet machine tools in February 1941, Japanese corporations struggled to find American buyers for many of the embargoed tools.[413] Unlike the Japanese importers, the Soviet state-owned trading companies refused to sell their machine tools. By July 1941, the AEC had blocked the export of $17.7 million worth of Soviet machine tools, but it requisitioned only a small portion of the tools theoretically available, indicating they might not have been either suitable or needed. By May, the AEC had requisitioned only $4 million of machine tools, of which as much as $3 million may have been owned by Amtorg.[414] At the same time, requests from the ANMB to requisition specific machine tools for the munitions industry significantly slowed at the beginning of 1941. The needs of the

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[412] "Memo Army-Navy Munitions Brd.," dated July 19, 1940, Box 271, Folder Japan 401 Thru 411, Entry 98 Office of Administrator of Export Control July 1940-May 1942, Central File (Area), RG169, NACP.

[413] "State, Div. Controls to AEC," dated May 1, 1941, Ibid.

[414] "Memorandum of Oral Statement Made by the Soviet Ambassador to the Under Secretary of State." In January 1941 the Soviet Ambassador reported to Welles that the AEC had requisitioned $3 million in Soviet machine tools. The AEC determined a fair compensation value for the tools it requisitioned, and this value may have lower than the value the Soviets paid for the tools.

American defense industry, therefore, do not appear to justify the total revocation of export licenses for machine tools destined for the Soviet Union and Japan. In contrast, orders from potential allies were denied licenses only in very specific cases critical to American rearmament.

These targeted restrictions on machine tool exports coincided with additional export controls, some of which were explicitly implemented to target potential enemy war economies. Some of these measures were unconnected to American defense needs. For example, in April, the AEC blocked the export of a Soviet order for heavy cranes, which the Navy wanted for its own use. The AEC asked customs officers to delay shipment long enough for the controls to take effect. Maxwell also placed cut leather soles for boots under export control solely because the Soviets had just placed large orders for them.[415]

[415] "Memorandum To: Mr. Thomas Hewes, From: Robert M. Stephenson, Subject: Meeting of Subcommittee on Legislation, Proclamations, and Regulations," dated April 5, 1941, and "Memorandum To: Mr. Thomas Hewes, From: R.M. Stephenson, Subject: Action by Sub-committee on Legislation, Proclamations, and Regulations," dated April 25, 1941, Box 6, Folder F, Entry 146 Office of Administrator, Records Analysis Division, Historical Monographs Prepared Outside Division, RG169, NACP.

Chapter 6 - The Projects Section and Doctrinal Development

I. Introduction

The war trade control organization described in the War Trade Annex to the 1939 Industrial Mobilization Plan included dedicated sections dedicated to economic warfare for collating and analyzing economic intelligence in order to identify vulnerabilities in the enemy's war economy and for developing operational plans to exploit those vulnerabilities. The sections were akin to the intelligence (G-2) and operations (G-3) sections of military staffs. Both the intelligence and operations staffs each had two divisions, one for conducting current ongoing operations and one for planning future operations.

Economic warfare measures could take months, or even years, to effectively degrade an economic system, so the Annex emphasized the urgency of early action and warned of "the dilemma of delay."[416] For Maxwell, planning for economic warfare was the most important aspect of his mission, and he quickly began shaping the AEC into the envisioned economic warfare agency. He later recalled, "I checked around and found no other agency doing this, so we undertook to do the work—camouflaging it a little bit."[417]

In mid-September 1940, at the same time he was preparing to expand the scrap and aviation gasoline embargos significantly, he approached the commandant of the Army Industrial College and fellow Ordnance Branch officer, Colonel Francis H. Miles, with a request to transfer the lead author of the 1939 War Trade Annex, Major Paul P. Logan, from the faculty of the

[416] "War Trade Annex (Revised) to the Industrial Mobilization Plan (1939)," 4.

[417] "Conference with Major General R.L. Maxwell, Formerly Administrator of Export Control."

College to his staff. Maxwell told Miles that he needed Logan to establish and lead an economic warfare planning and intelligence section within the AEC.[418]

Besides authoring the 1939 War Trade Annex, Logan was also the head of the college's recently formed Economic Warfare Section. In the late 1930s, with tensions rising among the European powers, the AIC had substantially expanded the study of economic warfare in the curriculum, including instruction and case studies evaluating the military potential of major European and Asian powers. Shortly after the German invasion of Poland, Miles had formally established the Economic Warfare Section within the college faculty and assigned Major Logan as its head. During the 1939-1940 academic year, which had only ended a few months earlier, Logan and his section had conducted a series of studies on economic warfare and supplies of war materials as well as producing the War Trade Annex—which was basically a completely original document from the same annex in 1933 and 1936 editions of the IMP.[419]

Miles answered Maxwell's request with a counter-proposal:

> Having every desire to assist the Administrator of Export Control in his work in the field of economic warfare, the Army Industrial College submits the following counter proposal on this subject: It is believed that the Economic Warfare Section of the Academic Division, Army Industrial College, is now laying the groundwork in this field in a systematic and progressive manner for a more comprehensive operating organization which might be set up in the near future. Our Academic set-up might well be considered the parent organization of and be transformed into an operating agency in this field of

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[418] "Memorandum for Commandant, Army Industrial College: Subject: Services of Major Paul P. Logan, QMC" dated September 20, 1940, Box 6, Folder F, Entry 146 Office of Administrator, Records Analysis Division, Historical Monographs Prepared Outside Division, RG169, NACP.

[419] ICAF, *The First Twenty-Five Years*, 12-14.

national defense. Therefore, it is suggested that our Economic Warfare Section push the work with a view to its transfer to your administration about December 15, 1940…. [the end of the academic term] Furthermore, the Army Industrial College will closely observe the current class with a view to recommending officers for possible detail for duty in the field of economic warfare.

Miles also invited Maxwell to recommend topics for the officers attending the college to examine in case studies "with a view to contributing to the solution of your special problem."[420]

Maxwell agreed. He then asked Secretary of War Henry Stimson to formally transfer the section "to serve as a nucleus for the larger unit now visualized."[421] Stimson approved the move, which would take place in December at the end of the current term. "In the meantime," he wrote, "close liaison and practical control seems advisable."[422]

To meet the growing need for AIC-trained officers to assist with managing rapidly expanded military procurement and planning the pressing mobilization of industry, the AIC had shortened its academic term to four months so the college could graduate multiple classes each year. As promised, Miles focused the Fall 1940 class on supporting Maxwell. The course included instruction on economic warfare, including lectures on the methods of economic warfare by J. Anton De Haas from Harvard's Graduate School of Business Administration, and the economies of the major powers. Earlier courses had evaluated the war economies of the

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[420] "Memorandum For: The Administrator of Export Control; Subject: Economic Warfare," dated September 23, 1940, Box 6, Folder F, Entry 146 Office of Administrator, Records Analysis Division, Historical Monographs Prepared Outside Division, RG169, NACP.

[421] "Memorandum for the Secretary of War; Subject: Economic Information Service," dated October 1, 1940, Ibid.

[422] "Memorandum for the Administrator of Export Control; Subject: Economic Warfare," dated October 7, 1940, Ibid.

European Powers, so the Fall class focused its case studies on the Japanese war economy. The officers also prepared case studies on controlling war trade, economic warfare planning, and on expanding the AEC into the War Trade Administration envisioned in the Industrial Mobilization Plan.

II. Major Logan's Lecture

Early in the Army Industrial College's Fall 1940 term, Major Logan—chief author of the 1939 War Trade Annex—gave the first formal briefing on economic warfare to the officers later seconded to the AEC. In public, Roosevelt officials still spoke of "economic defense," but Logan made clear the planners' true intent: an offensive campaign aimed at throttling the enemy's economic lifelines.

> During the past few months, we have heard, in ever-increasing crescendo, the use of the term "Economic Warfare." The term has been somewhat loosely applied to all activities, other than actual combat, to all measures by which one nation has attempted to conserve its own resources and obtain additional supplies—or to obstruct the external resources of another nation.
>
> Economic warfare, it is believed, should be defined as the sum of all measures taken to prevent the enemy from acquiring—or having access to—supplies from outside sources—whether the supplies have military significance or not.

Logan described contemporary examples of economic warfare: Britain employed economic warfare tactics by acquiring Romanian oil production facilities and implementing naval blockades to prevent Germany from obtaining petroleum from international sources. Similarly, Germany engaged in economic warfare when it seized Danish food resources and established blockades to stop food shipments from Nordic countries (Sweden, Finland, and

Baltic nations) from reaching Britain. “On the other hand,” he stated, “all measures taken to conserve supplies within a country or to arrive at productive solidarity are measures of national defense which might properly be classified as Economic Mobilization.”

Economic warfare, on the other hand, involved a range of political and financial measures aimed at disrupting an enemy's trade and cutting off their lines of supply. As military leaders, he told the assembled officers, they needed to seriously consider a fundamental concept of warfare known as “The Principle of the Offensive.”

> The complacent democracies who have inherited the major share of the world’s resources have apparently been thinking only in terms of defense. The “Have-not” nations have had to assume the offensive in their concept of life and, consequently, have planned offensive measures. From the day Hitler occupied the Rhineland to the present time he has used offensive military and economic measures and has held the initiative. It is time for us—for this college to cease thinking solely in terms of defense and apply our brains to measures of offense—not only in connection with economic warfare but also with due regard to all presently known forms of total warfare.[423]

Logan’s lecture marked a transition point from hypothetical studies to practical planning for imminent implementation of economic warfare by a nascent economic warfare organization—the AEC—which did not yet exist when he wrote the revised War Trade Annex only a few months earlier. His lecture was the first in a series of doctrinal documents that track the transfer of expertise from the World War I War Trade Board, through the Army Industrial College, and to the Projects Section of the AEC. Logan established the framework for future

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[423] “Presentation on Economic Warfare,” undated, Box 698, Folder Bases for Development of Plans, Major Paul P. Logan, Army Industrial College, Entry 88 Chief of Projects Section, RG169, NACP.

doctrinal development by highlighting the need for offensive thinking and defining economic warfare broadly to include political and financial measures as a central component of national grand strategy.

III. The AIC Studies

As promised, Miles selected exceptional officers to work on the economic warfare studies for Maxwell. Among these was Major Samuel Clabaugh, who would make a number of contributions to the American economic warfare effort in the following year. Miles tasked him with leading the economic warfare planning effort, and Clabaugh and his fellow officers produced a pair of influential studies that helped shape the future of the AEC and its follow-on economic warfare agencies. Maxwell later described their work. "Colonel Clabaugh's report, prepared by the Committee in the Army Industrial College, was the Bible for us."[424]

Their report began with the statement: "With the creation of the office of Administrator of Export Control, economic defense began to march as the comrade in arms of military defense…. export control in the event of war will be a major phase of the administration of war trade; that war trade is the principal weapon of economic warfare; and that any plan for future administration of export control is necessarily related to plans for economic defense."[425]

Control of commerce would become a necessary weapon of war. "In the present world economy, there can never be a war at arms that will not extend to a war of commerce and economics, often more deadly." The report continued:

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[424] "Conference with Major General R.L. Maxwell, Formerly Administrator of Export Control."

[425] "Committee Report on Special Problem C, Subject: The Administration of Export Control," dated October 3, 1940, "Export Control by Brigadier General R.L. Maxwell, USA, Administrator of Export Control,", 26.

> Control of exports is necessary for the procurement and conservation of essential war materials, the financing of the war effort, and the injury of the enemy. It is, therefore, one of the most necessary and effective weapons of war. With the lessons of the World War and the realities of the present war before them, the nations of the world almost without exception have imposed controls of varying degrees on their foreign trade.[426]

The legislation authorizing the President to control exports, Section 6 of HR 9850 An Act to Expedite the Strengthening of National Defense, specified that export controls were to be applied when it was "necessary in the interest of national defense." Clabaugh's group argued that this phrase offered wide latitude to the Administrator of Export Control in implementing controls.

> "In the interest of national defense" would seem to include broad considerations of national defense. The power given to the President is not limited merely to considerations of the procurement requirements of the military establishment. Applications for license to export items named in the proclamations can be approved or rejected according to whether the President determines that it is in the interest of the national defense to approve or reject them. This could be done without regard to procurement requirements or the existence even of an exportable surplus. It could well be in the interest of national defense to permit the export to on nation and withhold it form others in accordance with established national policies.[427]

The committee recognized that within the framework of gradual implementation specified in the War Trade Annex, the AEC was an intermediate, short-of-war agency. "If this

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[426] Ibid., 1-2.

[427] Ibid., 3.

nation should be drawn into the war, the office of Administrator of Export Control would most probably be expanded into or absorbed by a War Trade Administration or an Administration of Economic Warfare." Accordingly, AIC officers prepared "a specific plan of organization of the office, capable of expansion into a War Trade Administration or Economic Defense Administration." To this end, they recommended the immediate formation of a research, coordination, and planning division to begin work on plans for a comprehensive economic warfare campaign. The division would also identify commodities needed by potential enemies for export control or preclusive purchasing.[428]

Echoing the "dilemma of delay" in the War Trade Annex, the officers emphasized the advantage of engaging in economic warfare prior to formal belligerency. "Economic warfare may precede armed conflict and tend to prevent it, or it may grow more intensive and become the decisive factor in the war itself."

Based on the public's reaction to the first three months of export controls, Clabaugh and his fellow officers assessed that public support may have advanced more quickly than the authors of the War Trade Annex had anticipated the previous Spring. "Public opinion may now be more ready for an Economic Defense Administration than we realize…. [T]here is every indication of a unanimous sentiment now in favor of defense measures." Industry and exporters appeared to cooperating "whole-heartedly" with export controls. The committee noted that export controls enabled contractors to voluntarily break contracts with Axis agents they would otherwise be legally bound to follow. Comment in newspapers and trade publications had been favorable and the public had accepted controls "in the spirit of '*c'est la guerre.*'" It was therefore possible that

[428] Ibid, 22.

the AEC could press aspects its economic warfare campaign sooner than the WTA framework of gradual implementation had forecast.

A few weeks later, Clabaugh and the other officers completed a follow-on report titled "War Trade and Economic Warfare." The report began, "Armed force is not the only instrumentality by which nations can be conquered."[429]

Their perspectives on economic warfare were derived from the experience of the War Trade Board and the American-British-French blockade in the First World War.

> "Ever since the last war there has been an increasing awareness that warfare is largely economic in character. Industrial and financial resources and civilian morale rather than victory on the field were the deciding factors in the World War….
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> "Our predecessors in the World War demonstrated the value of utilizing economic methods and pressures as war weapons. Uncoordinated though these efforts were and often more expedient than planned in action; nevertheless, they had a marked effect in assisting the allies and damaging the German economy."[430]

The blockade and other economic warfare measures were only effective because of the strain of the economy caused by prolonged and widespread combat operations.

> The struggle became one between economic systems with the Allies victorious as a result of the inferiority of German's economic defense. But this exhaustion of resources in 1918 would not have manifested itself to so marked a degree without the constant fighting on several fronts on a tremendous scale. These violent combats involved the use and

[429] "Committee Report on Problem No. 36 Subject: War Trade and Economic Warfare," 4.

[430] Ibid, 6, 14.

destruction of immense amounts of war materials as well as resources which would have sustained the civilian population for a long period.

While economic factors play an important part they produce their best efforts in conjunction with military, naval, and air operation. If it be a misconception to think of modern warfare as a series of physical combats it is likewise an illusion to believe that dollars and war loans are the chief factors in achieving victory.[431]

So far, the conditions of the current war were significantly different than those in the earlier world war. Germany had strengthened its economic defenses, while combat operations had failed to strain the German war economy. Economic warfare needed to be coordinated with military and naval campaigns to force the enemy to expend munitions and consume resources. The American officers were critical of the British economic warfare effort. "Britain defensively entrenched itself behind economic lines of fortification and hoped for the opponent to give way, while Germany aggressively fought to secure additional resources and maintain existing economic routes of supply."[432]

The officers on the committee were concerned that "Democratic countries were disadvantaged because of their limited ability to implement economic warfare measures, many of which were disruptive to a free-market economy and intrusive on the rights of citizens, while Germany, due to "the totalitarian nature" of its government, had been able to wage active economic warfare since 1933." They were concerned that the United States would face the same

[431] Ibid.

[432] Ibid.

problems if the country did not quickly initiate its own offensive and defensive economic warfare campaign before a declaration of war.[433]

> In this crisis the United States must resort to an economic warfare which is more equally offensive and defensive in character. Not only must potential opponents or actual enemies be attacked but this country must defend her position in the Americas and win to her economic and political beliefs, those nations who might by trade, if not by ideology seek solution elsewhere of their internal difficulties.[434]

They argued that the War Trade Annex "has demonstrated a much more flexible character than even its originators contemplated." The plan could be easily modified and adapted to meet the rapidly changing strategic situation. However, they recognized that such a campaign would have the potential for both high risk and high reward. Before a war, "offensive economic warfare either acts to avert conflict or it accentuates the causes of the underlying friction and hastens the war."[435]

The committee also recognized the connection between economic warfare and psychological warfare. They proposed conducting a coordinated psychological warfare campaign based on propaganda communicating three messages:

> A. The opponent's economic defenses are impregnable.
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> B. Their own economic defenses have pronounced and growing weaknesses.
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> C. One is justified in distrusting the economic and financial prospects of his own government.[436]

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[433] Ibid, 18

[434] Ibid, 14.

[435] Ibid., 10.

[436] Ibid., 13.

Finally, the officers concluded "that the dominant influence of economics on any future military effort warrants the extension of the War Trade Annex to include 'Color Plans.'"[437] The 'Color Plans" were a series of hypothetical strategic plans developed by the planning staffs of the Joint Army and Navy Board to prepare for potential conflicts with various countries. Each potential adversary was assigned a color. For example, Japan was assigned the color Orange and the plan for war against Japan was known as "War Plan Orange." Maxwell adopted this recommendation, and a few weeks later, the new Projects Section—which would include some of the officers who produced this report—would begin work on an economic warfare Plan Orange.

IV. The Projects Section Established

Upon their graduation on December 15, the Army Industrial College transferred Clabaugh and the other promised officers to the AEC. Maxwell took the unit and formed an economic warfare planning unit within the Planning Division, which he named the Projects Section. Later he explained, "Nobody knows what that means, and it doesn't arouse any trouble."[438]

While Maxwell appointed an Army officer to serve as the administrative head of the section, the operations of the section were directed by Thomas Hewes, a civilian attorney from Hartford, Connecticut. Hewes had previously served as advisor to both the Treasury and State Departments. He was a personal friend of Edward Stettinius, Jr, who had called him to Washington the previous July to serve as a dollar-a-year man in Stettinius' Industrial Materials Section of the NDAC. Hewes had already been working closely with Maxwell on the aviation

[437] Ibid.

[438] "Export Control by Brigadier General R.L. Maxwell, USA, Administrator of Export Control."

gasoline embargo and the restrictions on export of the Soviet machine tools. Stettinius apparently planned on seconding Hewes to Maxwell once he established the project section, because Hewes had joined the officers in the Army Industrial College in their economic warfare planning prior to the Fall course. Hewes, in turn, had recruited two men who acted as his lieutenants and whom he assigned to oversee the two main branches of the section's economic warfare planning. These men were Chandler Morse, an economist on loan to Maxell from the Federal Reserve, and Ralph Turner, a professor of history at Yale University.

V. Chandler Morse's Memo

One of the first tasks for these three men was building on the work of the Army Industrial College to establish a formal framework for future economic warfare planning. In January, Morse shared his thoughts on an economic warfare framework with Hewes. Morse structured economic warfare measures within four binary categories: specific versus broad, direct versus indirect, tangible versus intangible, and peacetime versus wartime.

Specific measures targeted one sector, material, or process within an enemy's war economy, while broad "shotgun" measures would have a general impact on the enemy economy in general. Specific measures sought to rapidly "cripple an enemy" or degrade an enemy capability, while broad measures sought to degrade the feasibility and acceptability of an enemy's strategy by generally reducing the productive capacity of the enemy war economy and therefore the scale of resources of available. Broad measures would "wear down [an] enemy gradually and weaken morale through creating shortages and forcing use of progressively less satisfactory substitutes."

Direct measures targeted the enemy. Direct measures included export controls, import controls which "[deprive] the enemy of dollar exchange and enforces him to forego purchases in

foreign countries as well as in the United States," blacklisting, and shipping controls.[439] Indirect measures were "designed to injure the enemy indirectly" by limiting the enemy's ability to obtain required raw materials, manufactures, or other resources from the neutral country. These included quotas on exports so there would be no exportable surplus above the amounts required for domestic needs, threatening to withhold supplies to coerce a neutral to prevent exports or the extension of credit to an enemy or allowing enemy ships from using neutral ports and facilities, and extending financial credits and purchasing production surpluses to induce the neutral country to support the United States instead of the Axis. Morse also advocated preclusive buying "to create a shortage of a single, vital commodity in order to cripple enemy." Morse added that setting up beneficial post-war economic conditions was an important consideration in the economic warfare measures targeting neutral countries.

Tangible measures dealt with physical things like commodities and machinery, while intangible measures referred to psychological warfare or propaganda measures. Morse was not the first to make the connection between economic warfare and psychological warfare. The officers at the AIC had already included related propaganda measures in their planning. Economic warfare measures could impose costs on enemy populations or important social groups, which could decrease the acceptability of an enemy's wartime grand strategy. Using propaganda to point out these costs was a natural extension of economic warfare. The Project Sections' continued study of the potential was likely the determinative factor in the Planning

[439] "Memorandum To: Mr. Hewes, Subject: Thoughts on methods of economic warfare," dated January 10, 1941, Box 995, Folder G-4, Entry 171 History of Export Control Exhibits, RG169, NACP.

Division, including a foreign propaganda division in its revised plans for a War Trade Administration, redesignated as the Economic Warfare Administration, later that Spring.[440]

Morse noted that the United States could implement a large portion of available economic warfare measures, especially in the critical "indirect" measures designed to restrict enemy access to neutral resources, prior to entering into military conflict. Should the United States become a belligerent, additional measures would become available. Domestically, these included the confiscation of enemy property and censorship of the mail and other types of communication. The United States would also be able to use its military and naval power to blockade the enemy. This would include both the interdiction of enemy shipping through interception and detention or destruction, and joining the existing British Navicert system. Military action could also be taken against "vital economic centers in enemy territory." Morse added the prescription that the United States should wage the "type of war that will subject the enemy to the greatest possible economic strain at the weakest point." Morse's thinking on economic warfare would have a significant influence on the American strategic bombing campaign against Germany.[441]

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[440] Later the AEC and its successors the Economic Defense Board, the Board of Economic Warfare, and the Foreign Economic Administration would assist the US agencies tasked with psychological warfare: the Coordinator of Information and its successors the Office of Strategic Services and the Office of War Information in developing propaganda related to its economic warfare mission.

[441] In mid-1942, Morse, then serving in the Office of Strategic Services, would become the first chief of the Board of Economic Warfare's London-based Economic Warfare Division's Enemy Objectives Unit which would assist the US Army Air Force's 8th Air Force in developing its strategic bombing campaign against Germany. Later Morse would return to the United States where he was a part of the Army Air Force's interagency Committee of Analysists, which was composed of analysts from the BEW, OSS, and the USAAF. The Committee's mission was to study and propose the most effective methods of conducting strategic bombing. It later became the Joint Targeting Group which developing strategic bombing concepts for attacking Japan.

VI. The Primer

A week later, Turner completed the most significant and detailed statement of American economic warfare doctrine developed during the pre-war period. The document, titled "The International Use of Economic Pressure as an Instrument of National Policy: A Primer," was written as a text for training the rapidly increasing number of new personnel in the AEC during their initial training course being conducted at Georgetown University.[442] The Primer represented the culmination of a doctrine-building arc that embedded the US experience with economic warfare in the First World War and the lessons derived through years of academic analysis of that experience during the interwar period into a Second World War organization. The document institutionalized a common theoretical framework or doctrine for economic warfare and formalized an offensive mindset that was shared by personnel in the AEC and its successor organizations. Much of the doctrine it explained is worth quoting directly.

The Primer situated the role of economic warfare within national grand strategy and provided a strategic-operational-tactical framework that clearly linked strategic effects with operational campaigns with tactical methods. Turner began:

> War is the use of force by states or by groups attempting to control a state in order to end a clash of interest between them. The outcome is determined by the establishment of a preponderance of power of one antagonist over the other in the course of armed conflict. Because an enemy may be expected to use all power at his disposal, a democratic state must organize for the creation and exertion of its full power.

[442] "The International Use of Economic Pressure as an Instrument of National Policy: A Primer," dated January 15, 1941, Box 995, Folder G-4, Entry 171 History of Export Control Exhibits, RG169, NACP.

> Today, as in the past, the sources of power are (1) the means of production, (2) the means of propaganda, and (3) the means of violence.
>
> Military theorists now recognize that war is conducted with every form of power. Economic, psychological, and combat actions go on simultaneously, and the art of warfare consists of coordinating these actions, defensively and offensively, so as to achieve the maximum results in the development and exertion of a nation's power and in the disintegration of the enemy's power.

The Primer asserted that "Economic warfare establishes the fundamental orientation of total war." Turner noted that terms like "total war" and "total defense" signify that modern conflict involves the entire nation. They reflect the comprehensive mobilization of society for wartime purposes and an approach to war which requires the complete integration of civilian life into the war effort. Every individual and all private interests must be coordinated to exert the maximum national power needed for successful warfare. Ultimately, a nation's military power relies on both its economic productive capacity and the morale of its people. In other words, the ability of national grand strategy to achieve national objectives by military means, or its suitability, is predicated on both its feasibility and acceptability. "Indeed, the combat force, in all of its branches, is only the cutting edge of the national economy, fully organized for the creation and exertion of power."

After establishing that economic power undergirds the military power of a nation, the Primer turned to a discussion of how to develop concepts for economic warfare campaigns directed against the enemy's war economy. The British used the term "hypothesis" as a proposed solution to a military problem in their planning. The process described was similar to the military planning process, which began with intelligence and planning staffs preparing what was called

an “Estimate of the Situation” in the American military and an “Appreciation” of the situation in the British military. The similarity is unsurprising given that the process of economic warfare planning was initially developed by US Army officers at a senior military service school.

> Economic warfare, like every other form of war, has both offensive and defensive aspects. Offensively, it consists of all kinds of economic acts, affecting the production and distribution of wealth, which limit, weaken, and destroy the power of an enemy, the total effect of such acts being a contribution to the defeat of his combat forces and the destruction of his will to continue military action. Defensively, it consists of similar acts which protect and increase the power of a nation and maintain its economic life as the adequate support of its population in normal activities.

The Primer identified five categories of strategic effects that could be achieved using economic warfare methods:

> 1. Those which directly affect the size and efficiency of the combat force by fixing the supply of materials and implements of warfare.
> 2. Those which directly condition the size and efficiency of the combat force by affecting the operations of systems of production and transport supplying it with the materials and implements of warfare.
> 3. Those which contribute to the obtaining of materials of warfare or the financial resources necessary for obtaining them from outside sources.
> 4. Those which affect the supplies of commodities necessary for the support of the population, especially the labor force, at a level of satisfaction sufficient to maintain working efficiency and the will to fight.

5. Those which offer economic conditions, which, because they seem better than those actually existing, are a reason for withdrawing from the war.[443]

Turner explained that "The determination of the acts that will have any one or any combination of these results is the primary problem of the strategy of economic warfare…." It was also possible that attacking specific economic warfare targets could have disproportional effects on the enemy's war economy.

> Thus, economic warfare may be conducted in a broad frontal attack, such as the British blockade of Germany during the First World War, which, by cutting of the food supply, ultimately weakened the German population. Or it may be conducted by rapier-like strokes. A reduction of an enemy's supply of some necessary raw material (Italy: petroleum) or some mechanical part (Japan: electric cathodes) or chemical substance (Germany: cobalt) of a productive process may rapidly lessen his capacity to maintain an effective combat force.

The development of suitable concepts for employing economic warfare measures began with an analysis of an enemy's economic vulnerability.

> The analysis of an enemy's economy in order to discover its vulnerability to various kinds of action is the necessary preparation for the waging of successful economic warfare. That part of an economy at which a specific act of economic warfare has a direct

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[443] In early 1941, it would not be unusual for the authors of the Primer to believe that a future war would end in a negotiated, "conditional" surrender of one side. That the United States later adopted the unconditional surrender of the Axis Powers as a war objective would have theoretically reduced the impact of economic warfare measures on the morale of the enemy—the term used to describe the willingness of the enemy population to accept the costs of the war—and potentially delay an end to the war as the higher costs to the losers of unconditional versus conditional surrender would increase the value of continuing the war for significant portions of the enemy populations.

effect is a *point of vulnerability.* That combination of points of vulnerability, in terms of which acts of economic warfare have the greatest destructive effect upon the enemy's economy, is its *pattern of maximum vulnerability.* [emphasis in the original]

The Primer identified seven categories of possible economic targets that might become objectives for suitable economic warfare campaigns.

1. Accumulated stocks of commodities and raw materials necessary for the organization of national power: Accumulated stocks are the primary condition upon an enemy's war effort. The vulnerability of his at any point in time after the beginning of a war is relative to the consumption and replenishment of these stocks. An exact knowledge of these stocks is, therefore, a necessity if economic warfare is to be successfully waged against him.

2. Raw materials, sources and amounts, especially those obtained from outside sources: Decisive results in economic warfare can be obtained by cutting off the supply of essential raw materials. In view of the enormous variety of materials required by modern technology, no nation can be completely self-sufficient. In this fact exists the possibility of finding some raw material without which an enemy's war effort may, figuratively speaking, be starved.

3. Technological equipment: Because an increasingly complex technological equipment is required for industrial production, transport, and combat, many acts which will lessen its efficiency can be taken. The lack of some raw material, some machine tool or machine part, or some chemical may disorganize an enemy's economy at very important points.

4. Labor, forms and amounts required for maintenance of maximum power: Because the total war effort of a nation is relative to its labor force, any action which disturbs its food

supply or its health services, or lowers its level of consumption is likely to lessen its efficiency. The cumulative effects of successful action in this field may be decisive for the outcome of the war.

5. Financial resources, sources and kinds: Financial considerations are probably more important for disorganizing an enemy's will to fight in the period before the beginning of a war than afterwards. However, financial acts in markets open to an enemy may seriously limit his opportunity to secure necessary supplies from it.

6. Markets, size and location: The extended character of contemporary commerce creates many opportunities to interfere with the economic life of an enemy. Every market should be considered a field of economic action where enemies are injured and friends supported. The need for a continuous supply of great variety of materials for war effort makes the markets of the world a primary field of economic warfare.

7. Substitutes: As supplies grow less, inferior materials or substitutes must be used. The extent to which an enemy can do this is determined partly by the severity of his situation and partly by scientific and technological advances which give him new means of action.

The Primer described twenty-three tactical methods for conducting economic warfare across the different geographic areas of operation: within the enemy's territory and economy, in neutral countries, and within one's own national economy. These economic methods of attack would "disorganize his economy" and "deprive it of resources-materials, machines, labor, and capital- necessary for operation." Planners could use "some combination" of the methods to "make possible a campaign of economic warfare against an enemy in terms of his pattern of

maximum vulnerability. The particular combination which will cause the most destructive effects must be determined for each specific set of circumstances."[444]

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[444] The methods listed in the Primer were:

1. The boycott: the stopping of all imports from an enemy or potential enemy.
2. The embargo: the stopping of all exports to an enemy or potential enemy.
3. The licensing of exports: a selective embargo which limits or stops the export of primary and secondary war materials to an enemy or potential enemy.
4. The licensing of exporters: a means of preventing exporters from dealing with an enemy or potential enemy in an or all commodities.
5. The licensing of imports: a means of affecting all enemy concerns operating in the domestic market.
6. The licensing of importers: a means of preventing importers from dealing in enemy goods, especially for obtaining foreign exchange.
7. The licensing of foreign companies doing business through an agency or branch office: this device makes possible a wide control over all enemy concerns doing business in the domestic market.
8. The embargo of enemy or potential enemy companies operating in neutral countries: this method aims to limit an enemy's obtaining foreign exchange (and/or to destroy enemy concerns).
9. The rationing of exports to neutrals: a device that prevents the enemy from obtaining commodities and materials by indirect routes.
10. Preclusive purchasing: this method aims to deprive an enemy of essential materials by cornering available supplies.
11. Dumping: this device floods an enemy's market with competitive goods at a price lower than that at which he can sell.
12. Directive purchasing of foreign commodities: this device brings pressure to bear on foreign nations to limit and guide their dealings with an enemy.
13. Directive investment: this device aims to give economic controls within neutral countries so that their concerns cannot act for any enemy interests.
14. Directive loans (and/or refusal of loans): a device that withdraws neutral areas from enemy influence or disorganizes a market to which the enemy has access.
15. Confiscation of patents owned by enemy nationals: a device to release productive capacity from enemy control.
16. The regulation of overseas mail and parcel posts: a way to control shipments of currency, evidences of indebtedness, stock certificates, essential war materials of small bulk (industrial diamonds).
17. The control of shipping: a method of depriving a potential enemy or an enemy of the service of a nation's merchant marine.
18. The control of bunker facilities: a way of delaying ships serving the enemy.

The methods described fell into one of four categories. About a third were types of controls on national wartime trade, such as export, import, and financial controls. A second cluster of methods targeted an enemy's foreign markets and sources of raw materials. The third group aimed to disrupt the physical and institutional infrastructure that enabled the transfer of goods, funds, information, and technology. The final group of methods sought to control the movement and presence of enemy individuals and businesses. The AEC and its successor agencies would eventually employ each of the methods described, as well as additional methods not described. The list did not include diplomatic actions such as war, trade agreements, or military actions like blockade or direct attack.

The Primer emphasized the potential of strategic bombing as a method of economic warfare. The AEC and its successors would be deeply integrated with planning for the US strategic bombing campaigns against both Germany and Japan.

> The unprecedented mobility of air power makes possible new solutions of this problem, for now destructive attacks upon an enemy's economy can be made any place within the area he holds. Such attacks can be continuously directed against essential units in the enemy's production plant and in the systems of transport. The identification of these units and the discovery of their locations are aspects of the preparation for economic war.

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19. The acquisition of neutral shipping by purchase, lease, or the right of angary: a method of preventing neutral shipping from serving an enemy.

20 The control of foreign communications, such as radio, cable and overseas telephone: a way of disrupting enemy transactions.

21. The control of overseas air service: a way of bringing pressure on a foreign country through refusals to give this service.

22. The control of immigration: a method of restricting the commercial activities of an enemy country.

23. The control of alien movement: a means of restricting enemy commercial activity in the domestic market.

As the economic warfare and military campaigns progressed, economic warfare planners would need to continually reassess the most effective way to use airpower as changing conditions increased the vulnerability of different sectors of the enemy war economy. "As the destructive effects of economic warfare spread through an enemy's economy, new points at which military action may have great results in further disorganizing the economy will appear, and attacks upon them should be made without delay."

The Primer ended with a cautionary note that economic warfare actions could cut both ways. It warned that financial and industrial institutions "for making total war should not suffer from economic acts against an enemy unless the acts are likely to have a great effect upon his power. If this is the case, then the adverse effects should be regarded as a part of the national sacrifice required by war…. Inasmuch as the creation and exertion of a nation's full power depends on the labor force, special effort must be made to prevent the deterioration of its economic position. This is especially necessary because some acts of economic warfare can be designed to accomplish this result." Finally, the Primer warned:

> Of special importance in this connection is the need for loyal participation by economic units within a nation in acts of economic warfare. Disloyalty to such warfare constitutes a new crime— economic treason. Economic treason consists not merely of aiding an enemy but also of abetting any firm, foreigner, national, or government who or which supports him. Economic treason should be punishable with economic death.

VII. Conclusion

According to the pre-war Industrial Mobilization Plan, the War Trade Administration (WTA) was to be the nation's primary economic warfare agency. Maxwell, the officers of the Army Industrial College, the economic warfare planners in the Projects Section all saw

themselves acting in the role of the WTA until conditions permitted the full implementation of the IMP and the formal establishment of the WTA. The IMP was designed to solve the problems of economic strategy that strategic leaders had encountered in First World War. Those planning economic warfare in the early 1940s drew their own ideas about economic warfare from the experiences of the American War Trade Board in economic warfare in World War I.

Earlier planners emphasized the importance of offensive economic warfare measures. Because these measures took time to affect the enemy economy, they needed to be implemented as soon as possible, so there was an urgency to begin economic warfare. By November 1940, they believed that the level of public support for economic warfare measures would allow them to accelerate the timeline laid out in the IMP by merging pre-war and wartime phases. They judged that they could now implement certain economic warfare measures that interwar planners believed could be implemented only in wartime.

Effective economic warfare required the integration of military, diplomatic, and psychological/informational aspects of national power. The needed capabilities would not all reside in the economic warfare agency itself. The AEC would coordinate these measures and capabilities in a coherent campaign. Economic warfare planners would plan both “rapier” and “shotgun” measures, targeting the economic vulnerabilities underpinning the capabilities, feasibility, and acceptability of the enemy strategy. The AEC would need to develop some these capabilities itself or persuade other agencies to develop them. Economic warfare would not be independently decisive, but winning without it would be difficult. They expected economic warfare to reduce the cost of war and the time required to achieve victory, which would ultimately be accomplished by the success of military campaigns.

Chapter 7 - Plans for Implementing Economic Warfare

I. Introduction

After establishing the foundational theories for an economic warfare doctrine, Hewes directed the next phase of planning along two separate lines of operation. One group, led by Yale historian Ralph Turner, was tasked with investigating global commodity and financial flows while refining proposed techniques for economic warfare. Turner and his team would develop the administrative and legislative plans necessary to institutionalize the economic warfare methods outlined in the Primer. A second group, led by economist Chandler Morse, would create an economic warfare "Plan Orange" directed against Japan as the first of the recommended "Color Plans" advocated by the Army Industrial College.[445]

Building on studies conducted by Major Logan and the Economic Warfare Section of the Industrial College, Turner's group began collecting and collating "basic data relevant to economic warfare," including commodity exports, imports, and financial balances of payments between the United States and a wide selection of foreign countries, with particular attention to strategic and critical raw materials. [446] Turner used this information to create a chart outlining the economic strengths and weaknesses of various countries "so that one could tell at a glance what steps would be necessary to put economic pressure" on any targeted nation. Hewes described the chart: "For example, the chart would show how it might be necessary to operate through three or

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[445] "An Historical Record of Export Control," 40.

[446] "Basic data relevant to economic warfare," undated, Box 700, Folder Problem #1. Projects (General)—Primer, Entry 88 Chief Projects "Basic data relevant to economic warfare," undated, Box 700, Folder Problem #1. Projects (General)—Primer, Entry 88 Chief Projects Section, RG169, NACP.

""The Program of the Information Sub-Unit with Particular References to Projects I, II, III," undated, Folder Projects-General, Ibid.

four different countries" before the impact would actually be felt by the targeted country.[447] As part of that effort, Turner would also undertake a detailed examination of contemporary geopolitical theory.

Turner's team also focused on developing more detailed plans to implement or enhance existing economic warfare methods. He initiated studies and, in some cases, proposed new legislation regarding blacklisting, preclusive purchasing, import controls, financial and property controls, and shipping controls.[448] Additionally, his unit explored methods to close the gap in the AEC's export controls through the Philippine Islands, which were being exploited by Japan, while also improving the United States' capacity to conduct economic warfare in neutral Latin American republics.

II. Blacklisting

By the end of March, the Projects Section completed a study aimed at improving the administrative methods and effectiveness of blacklisting, which involved placing the names of foreign or domestic corporations or individuals suspected of doing business with the enemy on a "blacklist." The consignee and consignor listed on license applications for exports—and, beginning in June 1941, financial transactions—were checked against this blacklist. If either name appeared on the list, the license was rejected.[449] The planning staff explained that the purpose of blacklisting was "to prevent all commercial and financial dealings with persons of

[447] "Conference with Colonel Thomas Hewes at His Law Office," dated July 30, 1945, Box 1, Folder Conference with Col. Thos. Hewes, in Hartford, CT, Entry 144 Historians Reports of Interviews, RG169, NACP.

[448] "Studies of administrative procedures relating to certain controls," dated March 22, 1941, Box 995, Folder G-4, Entry 171 History of Export Control Exhibits, RG169, NACP.

[449] ICAF, *Economic Intelligence and Economic Warfare*, 47.

enemy nationality or association in order to restrict the power of the enemy to finance the war and to destroy the world trade organization of enemy commercial interests."[450]

During World War I, the US War Trade Board employed blacklisting as part of its economic warfare campaign. The Board maintained both a published list and a confidential list, alongside a "cloaks" list.[451] The British Ministry of Economic Warfare had been utilizing its own blacklists since the war's onset. The AEC formally began blacklisting foreign corporations and individuals with Axis connections in October 1940 by creating a confidential "list of unsatisfactory consignees."[452] Although the Export Control legislation passed by Congress on July 2, 1940, did not explicitly grant authority to investigate and blacklist foreign and domestic firms, Maxwell and his general counsel believed such authority was implied. The list was maintained by the Intelligence Section of the AEC's Information Division, which used intelligence reports from various organizations, including the Commercial Intelligence Unit of the Bureau of Foreign and Domestic Commerce, the Coordinator for Inter-American Affairs, the State Department, the Treasury Department, Customs, the FBI, and military intelligence

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[450] "Blacklisting: Use and Administration," dated March 26, 1941, Box 698, Folder Bases for Development of Plans, Entry 88 Chief Projects Section, RG169, NACP.

[451] Ibid. War Trade Board, 12, 46, 52-56.

[452] It is generally believed that the US did not begin blacklisting until July 17, 1941, when President Roosevelt authorized the publication of the "Statutory List of Proclaimed Foreign Nationals." W.N. Medlicott in the British official history *The Economic Blockade*, the most significant source on economic warfare in World War II, uses this date, (2:.38-39) as does Edward Miler in *Bankrupting the Enemy* (p.171). The only source that acknowledges the earlier date is David L. Gordon and Royden Dangerfield in *The Hidden Weapon: The Story of Economic Warfare* (p.152). They reported: "For some time before the publication of the American list, our economic defense agencies had been developing confidential files on persons and firms in Latin America considered inimical to the Hemisphere defense program, for the application of freezing controls and export restrictions." They also state that "confidential lists, whose very existence was not publicly known."

services.[453] Many of these organizations began maintaining their own blacklists, but the AEC considered its list the primary one.[454]

The AEC also established a "List of Unsatisfactory Exporters," comprising American corporations and citizens with suspected business links to Axis agents or Latin American firms representing Axis interests. The Intelligence Division published the initial list on January 11, 1941.[455] In February 1941, Maxwell created a Domestic Intelligence Unit within the AEC "to gather, digest, and evaluate information from every available source regarding the integrity and political leanings of domestic firms and individuals who were parties to applications for export licenses."[456]

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[453] "An Historical Record of Export Control," 46. "Blacklisting: Use and Administration,"

[454] "Conference with Major General R.L. Maxwell, Formerly Administrator of Export Control." Maxwell's claim is supported by Bureau of Budget's report "Chronological History of the Economic Defense Board," 32. The AEC, CIU and CIAA lists were the primary and most comprehensive lists. The Army, Navy, and State Department lists were secondary.

[455] "Unsatisfactory Exporters Memorandum No. 1: Initial List of Unsatisfactory Exporters," dated January 11, 1941, Box 8, Folder 1940-1941- Jan-June, Entry 97 Office of Administrator of Export Control Central File, RG169, NACP. Later memos referred to the list as "unsatisfactory consignors." Based on the distribution listed on the memo, it does not appear that it was distributed outside of the AEC.

[456] "An Historical Record of Export Control," 74. Agencies that provided intelligence to the AEC Domestic Intelligence Unit included the FBI, Bureau of Customs, the Army's Military Intelligence Division (MID) and the Navy's Office of Naval Intelligence (ONI), the Commercial Intelligence Unit of the Bureau of Foreign and Domestic Commerce, the Bureau of Immigration, the Coordinator of Inter-American Affairs, the Secret Service, the Securities and Exchange Commission, the Alien Property and Anti-Trust Divisions of the Department of Justice, the Federal Trade Commission, the Federal Reserve Board, the Patents Office, the Monetary Research Division of the Treasury Department, and the private firms Dun and Bradstreet. After the United States formally entered the war in December 1941, the AEC's successor agency, the Board of Economic Warfare, created an office in its Legal Division tasked with preparing prosecution cases against American exporters working in behalf of Axis interests. The Department of Justice also created a Economic Warfare Division from its Anti-Trust Division that, among other economic intelligence collection duties, investigated American firms and individuals suspected of violating the Trading With the Enemy Act.

In May, the AEC expanded the scope of its blacklists, asking intelligence collectors in its supporting agencies to identify suspects not only currently seeking to export materials but also those who might do so in the future. A memo stated that the AEC was "interested in obtaining any information regarding foreign activities on the part of individuals, firms, businesses, or political groups engaged in or interested in export trade and suspected of anti-democratic or pro-totalitarian motives or sympathies."[457] Export licenses requested by American exporters on this list were generally denied. This list was never published.[458] The Projects Section Primer, used to train new personnel, reiterated: "Of special importance in this connection is the need for loyal participation by economic units within a nation in acts of economic warfare. Disloyalty to such warfare constitutes a new crime—economic treason. Economic treason should be punishable with economic death."[459] By the end of May, the unit had investigated over 1,100 American firms, classifying only a dozen as "unsatisfactory," while others were marked as "suspicious."[460]

Many agencies sought to publish a version of the list publicly. Following a close review of the AEC list by the State Department, the President approved the publication of the "Proclaimed List of Certain Blocked Nationals" on July 17. At the time of publication, the list included 1,834 Latin American firms, with additional firms on the confidential list.[461] These firms would be treated as if they were nationals of Germany and Italy and, therefore, subject to a

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[457] "Memo AEC to Assistant Secretary of the Treasury, the Assistant Chief of Staff G-2, and the Federal Bureau of Investigation," dated May 14, 1941, Box 162, Folder Chief of Staff, Entry 97 , Entry 97 Office of Administrator of Export Control Central File, RG169, NACP.

[458] "An Historical Record of Export Control," 46.

[459] "The International Use of Economic Pressure as an Instrument of National Policy: A Primer," 10.

[460] "An Historical Record of Export Control," 75.

[461] Gordon and Dangerfield, 152. "An Historical Record of Export Control," 72. "Conference with Major General R.L. Maxwell, Formerly Administrator of Export Control."

financial licensing order that would "freeze" the financial transactions of citizens and corporations of the European Axis and continental European countries.[462] The American "Proclaimed List" was more comprehensive than the British "Statutory List" for Latin America. Beginning in September 1941, the British combined the American list with their own, increasing the number of firms the Ministry of Economic Warfare blocked from conducting trade with Great Britain.[463]

The State Department took responsibility for maintaining the official public list and established the Division of World Trade Intelligence for this purpose. Even after July, the AEC maintained its own intelligence section dedicated to collating and analyzing information for its blacklists to help keep the "Proclaimed List" updated.[464]

III. Preclusive Purchasing

In mid-April, Turner's team produced a Plan for Administering Preclusive Purchasing, which proposed improved methods to deprive Axis powers of critical raw materials by preemptively purchasing available stocks and future production in neutral countries. The Projects Section proposed creating a new Purchasing Division in the AEC, with actual purchasing conducted by subsidiaries of the Reconstruction Finance Corporation or the Procurement Division of the Treasury.

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[462] Presidential Proclamation No. 2497 dated July 17, 1941. "An Historical Record of Export Control," 72. Executive Order No. 8389, dated April 10, 1940, as amended on June 17, 1941.

[463] Cox,198–99. Gordon and Dangerfield, 154. Medlicott, 2:38-39. A representative from the MEW stationed at the British Embassy in Washington was a member of the American Proclaimed List Committee which included representatives from the Board of Economic Warfare, the Departments of State, Treasury, Justice, and Commerce, and the Office of Inter-American Affairs. Reciprocally, an American Economic Warfare representative stationed at the American Embassy in London was a member of the British Black List Committee.

[464] "An Historical Record of Export Control," 74. In March 1945, the State Department reorganized the Division of War Trade Intelligence as the Division of Economic Security Controls.

"Preclusive buying, known by the British as 'preemptive buying,' is another device for preventing the flow of strategic goods to an enemy economy." In theory, "preclusive buying means simply buying up items for the sole purpose of precluding the enemy from obtaining them." Successful preclusive purchasing depends on two preconditions: first, the targeted commodity must be essential to the enemy economy; second, it must be possible to buy a large enough portion of the total available stock to degrade the enemy war economy.[465]

Some aspects of the campaign, such as efforts to buy up Portuguese and Spanish wolfram, are relatively well-known. Histories addressing preclusive purchasing differ on when the US began a deliberate preclusive purchasing campaign. Jonathan Utley argues that US preclusive purchasing began in June 1941, while David Gordon and Royden Dangerfield cite April 1942, when the RFC created the United States Commercial Company, as the starting point. However, contemporary documents suggest that U.S. agencies were already conducting preclusive purchasing by the fall of 1940.[466]

In World War I, preclusive purchasing emerged as an innovative economic warfare strategy whereby the Allied Governments sought to deprive the Central Powers of vital raw materials and foodstuffs by buying up key exports from neutral countries. For instance, during the negotiations preceding the Swedish Trade Agreement of 1913, emphasis was placed on purchasing Swedish iron ore, mandating the acquisition of 2,000,000 tons. Allied policies ensured that Denmark's surplus meat and dairy products were diverted to supply Sweden and Norway, thereby limiting the Central Powers' access. Despite its innovative premise, the

[465] ICAF, *Economic Intelligence and Economic Warfare*, 47-48.

[466] Gordon and Dangerfield, 100. Utley, 122-123.

approach proved costly and logistically challenging, as evidenced by the heavy financial burdens incurred under agreements with Norway, eventually leading to its discontinuation.[467]

The Project Section planners believed that "in spite of the relative ineffectiveness of preclusive purchasing during the First World War, this form of economic warfare offers great possibilities of success under present-day conditions." Their confidence reflected the inclusion of preclusive purchasing in nearly every recent plan or study of economic warfare.[468]

The focus on preclusion was also a vital component of British economic warfare theory. In April 1940, the British government established the United Kingdom Commercial Corporation to conduct preclusive purchasing in the Balkans in an ultimately futile attempt to counter German economic penetration. The British Ministry of Economic Warfare continued to engage in preclusive purchasing in European neutrals.[469]

Army planners preparing the War Trade Annex to the Industrial Mobilization Plan specified that the Enemy Trade Section of a proposed War Trade Administration would plan and coordinate preclusive purchasing by other agencies. The Army planners believed that domestic political conditions would not permit preclusive purchasing until the US entered the war.[470] The economic warfare studies conducted by officers of the Army Industrial College in Fall 1940 specifically considered preclusive purchasing as one of the tools in a future economic warfare

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[467] "Subject: A Plan for Administering the Preclusive Purchasing of World Commodities," dated April 16, 1941, Box 698, Folder Subject: A Plan for Administering the Preclusive Purchasing of World Commodities, Entry 88 Chief Projects Section, RG169, NACP.

[468] Ibid.

[469] "The United Kingdom Commercial Corporation: It's Organization, Operations, and Objectives." Dated July 22, 1944, Box 6, Folder The United Kingdom Commercial Corporation, Entry 146 Office of Administrator, Records Analysis Division, Historical Monographs Prepared Outside Division, RG169, NACP.

[470] "War Trade Annex (Revised) to the Industrial Mobilization Plan (1939)," 36.

campaign: “In addition to purchasing essential war materials, it is a principle of economic warfare to purchase, if necessary to deny the enemy, all items which might be of use to him.”[471]

After Roosevelt’s re-election, the Advisory Commission on National Defense (NDAC) urged the President to implement an aggressive program of preclusive purchasing. On November 27, they met with the President to deliver their recommendations in person. Their memo contained four specific recommendations: undertake preclusive purchasing of materials needed by other nations even if the U.S. already had sufficient stockpiles; secure the required funding through the Treasury or the Reconstruction Finance Corporation; extend export licensing to all materials needed for war purposes; and require Latin American countries to restrict exports to non-Allied nations.[472]

In his December 14 memo to the President, Maxwell also encouraged Roosevelt to use American economic power to control enemy access to neutral markets. After Maxwell formally established his Projects Section on December 15, the section continued work on preclusive purchasing as a method of economic warfare. In a January memo to Hewes, Chandler Morse argued that the AEC could use preclusive purchasing of goods needed by the enemy to "create a shortage of a single, vital commodity" that could potentially cripple the enemy war economy. Even if that failed, forcing the enemy to use "progressively less satisfactory substitutes" would gradually wear them down and weaken morale through shortages.[473]

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[471] Committee Report on Problem No. 36 Subject: War Trade and Economic Warfare.”

[472] Utley, 123. “Memorandum: To: The President, From: The Advisory Commission to the Council of National Defense, Re: Economic Defense,” dated November 27, 1940, Box 995, Folder G-2, Entry 171 History of Export Control Exhibits, RG169, NACP.

[473] “Memorandum To: Mr. Hewes, Subject: Thoughts on methods of economic warfare.” “The International Use of Economic Pressure as an Instrument of National Policy: A Primer,” 10. “Memorandum To: The President, From:

Only a day later, Stanley Hornbeck, the State Department's Adviser on Political Relations for the Far East, sent a memorandum to Undersecretary Welles advocating for an aggressive program of preclusive purchasing. Hornbeck's memo was based on the recommendations of a Council on Foreign Relations study on "Japan's Vulnerability to American Sanctions," which suggested: "The United States and Great Britain might buy up strategic products for their own defense and war efforts, leaving nothing for Japan…." Additionally, "Refusal to sell to Japan might be made a part of Pan-American cooperation, and a condition favorable for securing United States loans."[474]

There was wide support for preclusive purchasing within the American government, so why was a large-scale preclusive purchasing campaign not implemented earlier? Before mid-1941, the United States government's ability to carry out large-scale preclusive purchasing was constrained by several factors. Congress had not allocated sufficient funds to acquire both existing stockpiles and future production of all the raw materials that the Axis might seek. Even where resources were available, the Treasury and Reconstruction Finance Corporation (RFC) faced legal restrictions that prevented them from paying above market price, allowing Axis agents, who had fewer legal constraints, to outbid American buyers. Political considerations added another layer of complexity: prominent figures like Jesse Jones of the RFC feared that driving up commodity prices would alienate important domestic and commercial allies—an especially delicate matter given the internal divisions within the Roosevelt Administration

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Administrator of Export Control, Subject: Reasons for initiation of more complete external economic pressures and the role of economic warfare in protecting the national interest," dated December 1940, Box 995, Folder G-4, Entry 171 History of Export Control Exhibits, RG169, NACP.

[474] *FRUS*, 1941, IV The Far East, Document 604 "Memorandum by the Adviser on Political Relations (Hornbeck) to the Under Secretary of State (Welles)."

between business-friendly Democrats and New Deal advocates. U.S. policymakers were uncertain about the specific raw material requirements for America's expanding military and industrial production. Limited intelligence on which commodities were most vital to Axis countries, coupled with uncertainty over how large peacetime budgets and stockpiles should be, hampered efforts. Precluding supply could backfire if it unintentionally stimulated further production in exporting countries unless accompanied by government-to-government export control deals. The U.S. needed to integrate diplomatic leverage through tighter export licensing, negotiated shipping preferences, and Import-Export Bank loans, all of which took time to coordinate.

Despite these limitations, several agencies began deliberate preclusive purchasing efforts by at least Fall 1940. After implementing control over the export of iron and steel scrap in October 1940, Maxwell coordinated the first explicit preclusive purchasing operations by arranging the purchase of scrap iron and steel stocks in Latin American countries to block their imminent purchase and export by Japanese agents.

The Coordinator of Inter-American Affairs, Nelson Rockefeller, and his staff were also directly involved in preclusive purchasing operations in Latin America in 1940 and 1941. The authors of the official post-war report on the wartime activities of the CIAA noted that "this phase of economic warfare was from the start one of the most vital concerns of the Coordinator." By the end of 1940, the CIAA had formally begun collecting intelligence on the purchases of strategic and critical raw materials by Axis powers in Latin America, specifically to guide

preclusive purchasing operations. This information was shared with the AEC and other agencies involved in preclusive purchasing.[475]

By December 1940, Secretary of Commerce Jesse Jones, Welles, and Morgenthau were discussing the use of RFC subsidiaries to make unprecedented purchases of Chilean copper.[476] Although Jones initially avoided framing the RFC's purchasing activities as "preclusive purchasing" or "economic warfare," he pressured US mining companies operating in Latin America to refuse or cancel sales of copper to Japanese agents and instead sell the copper to US corporations. This effort significantly limited the amount of copper that Japan could obtain from Latin America in 1941.[477]

Copper was an excellent target for economic warfare through preclusive purchasing because it was essential for munitions production, with no suitable substitute available. Japan, like all other major combatants, required enormous quantities of copper to sustain its munitions production. However, Japan could not meet even its basic wartime requirements from its domestic production or that of its empire. In Southeast Asia, only the Philippines produced significant amounts of copper, which were still grossly inadequate to meet Japan's needs. Prior to 1941, Japan primarily relied on the US, Canada, and the Philippines to fulfill its copper import

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[475] United States Office of Inter-American Affairs, *History of the Office of the Coordinator of Inter-American Affairs* (Washington, D.C.: U.S. Government Printing Office, 1947), 9-13.

[476] *FRUS*, 1940, V The American Republics, Eds. Victor J. Farrar, et al. (Washington, DC: US Government Printing Office, 1961) Document 824 “The Under Secretary of State (Welles) to the Secretary of the Treasury (Morgenthau).”

[477] Utley, 122-123. “Wartime Procurement of Copper,” dated July 26, 1943, Box 1, Folder Wartime Procurement of Foreign Copper OEW, Entry 146 Office of Administrator, Records Analysis Division, Historical Monographs Prepared Outside Division, RG169, NACP. In 1941 Chile export 505,000 short tons of copper to US, but Jones was pressuring US mining companies to block sales before the RFC had sufficient funding to purchase all of Chile’s production.

requirements.[478] On January 10, 1941, the President added copper to Maxwell's export control list, effectively cutting Japan off from US copper. The Canadians had already halted their own copper exports.[479] This left Latin America—principally Chile, and to a much smaller extent, Peru and Mexico—as the sole available source of copper in sufficient quantities to meet Japanese requirements.

At the end of March, Thomas Hewes, the chief of the AEC Projects Section, wrote to Maxwell, "We understand that there has been some preclusive buying by the United States and considerable thought has been given to it in several branches and agencies. But so far as we know, there is no coordinated activity in this field directed toward the attainment of specific objectives, such as inducing certain behavior by neutrals vis-à-vis the enemy, nor as part of a comprehensive plan to promote the general end of 'aid to Britain.' The Projects Section has completed a study of the German and Italian metal deficiencies, and a study on Japan regarding general deficiencies of articles suitable for preclusive buying is in progress. A complete administrative procedure has been established, and a draft statute is also prepared."[480]

In mid-April, Turner's team in the Projects Section completed their Plan for Administering Preclusive Purchasing.[481] "In spite of the relative ineffectiveness of preclusive purchasing during the First World War, this form of economic warfare offers great possibilities of success under present-day conditions."

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[478] "Report No. CC4-1, Subject: Japan's Economic Vulnerability in Copper," dated April 24, 1941, Box 964, Folder Report No. CC4-1, Entry 158 Economic Warfare Studies of the Army Industrial College, RG169, NACP.

[479] *FRUS,* 1931-1941, II Japan, Document 161 "Proclamation No.2453, Signed by President Roosevelt, January 10, 1941."

[480] "Subject: More active utilization of economic controls by the United States in cooperation with the British," dated March 31, 1941, Box 995, Folder G-4, Entry 171 History of Export Control Exhibits, RG169, NACP.

[481] "Subject: A Plan for Administering the Preclusive Purchasing of World Commodities."

They argued that "the initiation of a program of preclusive purchasing is the next logical step following export control in the transition period from peace to war in international relationships in the world today." The introduction to the plan continued, "With its vast financial resources and powerful economic weapons, the United States is admirably equipped to wage economic warfare by preclusive purchasing on a scale hitherto unknown."

Preclusive purchasing had several advantages that made it an attractive component of the expanding economic warfare campaign against the Axis. Unlike its military power, which was still unprepared for war, "preclusive purchasing as a weapon has the advantage that it can be used now while our rearmament program is still gaining momentum. It also provides a ready means of implementing export control and the British blockade by making it impossible for the Axis powers to turn to neutral sources of supply." Additionally, it was a cost-efficient weapon: "If a program of preclusive purchasing can shorten the present war by as little as six months, the result will more than justify the necessary expenditure."

To develop the capability for preclusive purchasing operations as part of an economic warfare campaign, the project section planners identified several necessary abilities. Preclusive purchasing required a system to collect, collate, and analyze economic intelligence to identify potential purchasing targets. Target assessments were being conducted in two complementary ways. The first method involved a vulnerability analysis of the enemy war economy to identify potential shortages of strategic materials. The Projects Section, with assistance from commodities experts in the Bureau of Foreign and Domestic Commerce and other departments, was completing the initial studies on Japan's war economy. The second method tracked the activities of enemy purchasing agents in neutral countries to identify what they were purchasing or attempting to purchase, particularly when they offered above-market prices. The State

Department, CIAA, FBI, commercial and financial attaches stationed at American embassies, and military and naval intelligence services were all involved in tracing Axis purchasing in Latin America and sharing their findings with AEC.

Next, the authority to plan, direct, and coordinate the purchasing program needed to be put into one agency. Maxwell's advisory committee provided the necessary mechanism for interagency coordination, expanding its membership to include representatives from all relevant government agencies. New members included the RFC, the CIAA, the Department of Justice, and military intelligence services. Even with excellent intelligence, the scope of a potential purchasing program exceeded the available funding, necessitating executive authority to direct limited resources toward the most effective targets.

The Project Section planners acknowledged that "in preempting the market for a specific commodity, it may be necessary to make purchases at prices which may not be justified by ordinary commercial considerations, and even though we may already have temporarily sufficient stockpile in the United States." However, both the RFC and Procurement Divisions were legally obligated to avoid financial losses from purchasing at excessively high prices or in volumes they could not resell. They were also politically constrained from driving up prices by engaging in competitive bidding with Axis agents. WHO said:

> The Axis powers are aware of this and, through their agents—especially the Japanese—are offering much better terms to producers who are naturally interested in selling to the highest bidder…. Due to these conditions, it is apparent that it will become increasingly difficult to purchase many of the mineral products included in our preclusive purchasing program unless we can meet Axis terms.

The Projects Section staff had discussed the requirements for a more comprehensive preclusive purchasing project with the Bureau of Budget, which determined that both new legislative authority and additional congressional appropriations would be needed.

The plan called for the creation of a dedicated Purchasing Division within the AEC. This division would consist of three sections: a Procurement Section to develop and supervise the execution of preclusive purchasing programs by the appropriate agency; a Liaison Section to coordinate with the Departments of State, Commerce, Treasury, and Agriculture, as well as the executive economic mobilization agencies; and a Research Section to collate and analyze economic intelligence related to strategic commodities and take over the preparation of economic vulnerability studies of potential enemies.

The Projects Section identified a list of commodities most urgently needed by Germany, Italy, and Japan, which might be subject to preclusive purchasing (Exhibit B). "Germany, Italy, and Japan may be prevented from acquiring a number of these commodities by joint action on the part of the United States, the British Empire, and its Allies in controlling exports or by the British blockade."[482]

The project planners believed that the British blockade had "effectively sealed European ports on the Atlantic and Mediterranean. Consequently, the only alternative source of supply for most commodities is Latin America, where Axis agents are now actively at work." (7)

Since the British blockade was relatively ineffective in the Pacific, strategic commodities purchased for German, Japanese, or Russian accounts in Latin America are being shipped in Japanese vessels, either to Japan for trans-shipment or directly to Vladivostok for forwarding to Germany via the Trans-Siberian Railway at a rate of 45,000 to 55,000 tons each month. (7)

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[482] "Subject: A Plan for Administering the Preclusive Purchasing of World Commodities."

This "present leak to Germany via the Trans-Siberian Railway through Soviet Russia, however, is proving to be the most troublesome." The Projects Section believed that "barring an actual outbreak of hostilities with Japan, there would appear to be only one effective means of preventing this traffic, namely: the preemption of the commodities most vitally needed by the Axis by a program of preclusive purchasing." (7)

The program of preclusive purchasing must focus on Latin American commodities, "chiefly metal and raw materials that the program of preclusive purchasing must be concentrated in order to prevent the acquisition of these vital supplies by unfriendly powers or their leakage to Germany over the Trans-Siberian Railway." (15)

Assistant Secretary of State Dean Acheson described the challenge with preclusive purchasing at a financial loss to a Congressional committee in June 1942:

> One problem that ought to be cleared up in the minds of the people who are handling this purchase of strategic materials, and that is that the Congress does not expect them to make a lot of money by doing this. In fact, you are going to lose a lot of money. You have got to lose a lot of money and you have got to be prepared to do that. If they are continually worried by thinking, “Well, we mustn't buy this because the price is a little high and we will have to sell it for less in the United States, and then we will be criticized by the Congress,” that doesn't bring about the vigorous attitude of mind which we have to have in dealing with that.[483]

He was accompanied by Feis, who told the committee that conditions for preclusive purchasing were improving. He stated: "The responsibility is, in fact, now with Mr. Jesse Jones

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[483] “Report of Proceedings: Hearing held before Military Defense Investigating Committee, Special Committee No. 3” June 3, 1941.”

and Mr. Clayton, because Congress has given them the statutory authority and given them the funds. They have, especially with this last RFC bill, all the authority in the world, and all the funds. They alone can act."[484]

He further remarked: “I think that Mr. Jones has changed over the course of the last six months very much. I think his appreciation of this problem has grown very much. We have got him buying things that would have had him tossing on his bed three or four months ago.”[485]

By the summer of 1941, several developments helped to remove these obstacles. The passage of the Lend-Lease Act in March significantly increased funding and underscored the American commitment to supporting Allied nations, thereby boosting demand for and justifying the purchase of critical materials. A new RFC bill, approved in late spring, provided additional financial resources for preclusive purchasing while loosening purchasing restrictions. New export controls encouraged Latin American producers to cooperate more closely with the United States. A gradual acceptance within the Roosevelt Administration—reflected in the "Victory Program" planning—that American involvement in the war was increasingly likely also made stockpiling large quantities of raw materials politically and strategically acceptable. Concurrently, the RFC received presidential approval for an "overall" preclusive purchasing program that began rolling out in the latter half of 1941. More accurate information on Axis vulnerability and priorities allowed U.S. buyers to effectively target the most impactful commodities. Finally, the partial reestablishment of the British blockade, alongside the Navicert system in which the MEW issued certificates to merchant vessels verifying their cargoes did not include contraband and authorizing passage through their blockade, raised the risk for neutral

[484] Ibid.

[485] Ibid.

European countries attempting to trade with Germany, easing the United States' challenge of shutting Axis buyers out of Latin American markets.

In September 1941, Charles Henderson, the Chairman of the RFC, reported on the preclusive purchasing operations conducted by the corporation and its subsidiaries.

> One of the important activities of Metals Reserve Company has grown out of what we have come to call the 'overall' agreements which have been made, and some of which are still being negotiated, with various Latin American countries.
>
> The primary object of these agreements was to prevent strategic and critical materials from going to the Axis powers, particularly to Japan, or through that country to Germany. In order to bring this about, the governments of the countries in question placed an embargo on the export of the materials we have mind, to any countries except those to which we were willing that such materials should go. The effect of such embargoes has been, of course, that the exporters who had been selling, for instance, to Japan, were deprived of a market. In order to replace this market, Metals Reserve has agreed to purchase the materials, which could thus no longer go to the Japanese. [486]

Henderson reported that agreements with Bolivia, Brazil, and Mexico had been established for some time. Peru was about to sign a comprehensive agreement, and negotiations with Chile and Argentina were currently underway. These agreements included the procurement of tin and tungsten from Bolivia, copper and lead from Mexico, and industrial diamonds, quartz crystals, manganese, and nickel from Brazil. "By means of these agreements, we have been able not only to secure additional strategic and critical commodities for our defense program, but we

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[486] "Strategic Materials by Charles B. Henderson, Chairman, Reconstruction Finance Corporation" dated September 16, 1941, Box 964A, Entry 158 Economic Warfare Studies of the Army Industrial College, RG169, NACP.

have been able effectively to prevent the export of any material quantities of these items to unfriendly countries."[487]

IV. Plugging the Philippine Islands Leak

In the initial months of operation, Maxwell and the AEC discovered that the Philippine Islands were both a leak in the export control system for strategic raw materials flowing to the Axis and a potential weak point in the supply network of strategic and critical raw materials needed for rearmament. Several important commodities were produced in the Philippines, some of which were crucial for meeting American defense requirements. These included abaca (also known as Manila fiber), manganese, chrome, copper, and iron ore. In September 1940, the ANMB requested that Maxwell place several of these exports from the Philippines under export control.[488] As an insular territory of the United States, the ANMB assumed that the authority to control exports provided in the July 2 Act would extend to the Philippine Islands. However, a legal review by the AEC and State Department determined that the authority granted by the Act did not extend to the Philippines—likely an unintended omission.

The commodity that the ANMB was most concerned about was abaca, also known as Manila fiber or Manila hemp. The higher grades of this fiber were used to create cordage and ropes for naval use worldwide. Fifty percent of the annual crop of suitable fibers was exported to the United States, while fifteen percent went to Japan. However, over half of the plantations, primarily located on the large southern island of Mindanao, were owned and operated by Japanese nationals. The ANMB was concerned that unless the U.S. controlled the exports, the

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[487] Ibid.

[488] "ANMB to AEC Subject: Control of Exports from the Philippine Islands," dated September 26, 1940, Box 271, Folder Japan, Entry 98 Office of Administrator of Export Control July 1940-May 1942, Central File (Area), RG169, NACP.

Japanese government would pressure its citizens in the Philippines to divert essential supplies from the U.S. Navy to the Imperial Japanese Navy. Additionally, the Islands were important sources of critical chrome and manganese ores needed for producing steel alloys for the rearmament program.[489]

The transportation costs of other raw materials, such as copper, iron ore, iron and steel scrap, low-grade abaca, and copra, made them uncompetitive in the U.S. market. However, they were vital to the Axis economies. Japan was purchasing large quantities for its own needs and re-exporting significant amounts to Germany via the Trans-Siberian railroad.[490]

In September 1940, the Army and Navy Munitions Board recommended to Maxwell that he extend export controls to cover "national defense products" produced there.[491] In November 1940, the NDAC also advised the President to extend export control to cover the Philippine Islands.[492] However, Maxwell lacked the legal authority to implement export control in the Philippines; new legislation from Congress explicitly granting control over Philippine exports was necessary.[493]

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[489] Ibid. *Philippine Export Control Hearings Before the Committee on Military Affairs House of Representatives Seventy-Seventh Congress First Sessions On H.J. Res. 183 A Resolution Extending the Act of July 2, 1940, to the Philippine Islands and Other Dependencies May 12, 1941*, (Washington DC: Government Printing Office, 1941), 3.

[490] Ibid.

[491] Ibid. "State Dept. to AEC, Receipt of telegram form American High Commissioner to Philippine Islands," dated October 12, 1940, and "Exports of Certain Strategic Materials from the Philippines to Japan and the United States," dated October 28, 1940," Ibid.

[492] "Memorandum: To: The President, From: The Advisory Commission to the Council of National Defense, Re: Economic Defense." Utley, 123.

[493] *H.J. Res. 183 A Resolution Extending the Act of July 2, 1940*. This was necessary because of the Act of August 29, 1916, "The statutory laws of the United States hereafter enacted shall not apply to the Philippine Islands except when they specifically so provide or are so provided in this act.". At the hearing, Assistant Secretary of State Dean

In March, Turner's section prepared plans to establish export control over the Philippine Islands and conducted a second study of its potential effects on the Philippine economy.[494] In their studies, the members of the Projects Section assumed that export controls would apply only to Japan, Kwantung, occupied China, and the Soviet Union, in accordance with existing geographical restrictions on exports to those locations. These destinations accounted for approximately seven percent of all exports from the Philippines by value—about $10,750,000. In contrast, 82 percent of the Islands' exports were destined for the United States. Most commodities exported to Japan were strategic or critical raw materials currently licensed by the AEC, including iron ore and scrap, copper ore and concentrates, manganese ore, abaca (Manila fiber), carabao hides, coconut oil, and copra. The Islands also exported significant amounts of timber and tobacco, which were not subject to export control. Japan had already been cut off from other suppliers of many of these commodities, and the increasing importance of the Philippines to Japan was reflected in the rapidly rising purchases of commodities from the Islands.[495]

The High Commissioner to the Philippines, Francis Bowes Sayre, protested against the AEC's proposal to extend export controls to the Philippine Islands. He argued that the Philippines had a closer economic connection to Japan than to the United States, and that the economic damage caused by the controls would outweigh any benefits to national defense.

Acheson wondered if the authority to control exports in the Philippine Islands had simply been inadvertently left out of the original legislation.

[494] "A Plan for the Establishment of an Export Control Administration in the Philippine Islands," dated March 13, 1941, and "Effects of Export Control on Philippine Economy," dated March 14, 1941, Box 698, Entry 88 Chief Projects Section, RG169, NACP.

[495] "Effects of Export Control on Philippine Economy."

Turner's team, however, believed that extending export controls would not seriously impact the Islands' economy, with one exception: the iron ore mining industry. They noted that "the interruption of iron ore exports, without compensation, would be a serious blow to the Philippine economy" because there were no alternative markets for the islands' iron ore. The team recommended that if controls were extended, the AEC should allow exports of iron ore up to a quota of 900,000 tons to Japan.[496]

Turner and his team had access to the ongoing studies of Japan's economic vulnerabilities, but the Project Section analysts underestimated the significance of Philippine scrap and ores to the Japanese war economy. The Philippines was the second-largest supplier of iron ore to Japan, following British-controlled Malaya. In 1940, the Islands exported 1,228,000 tons of iron ore to Japan—enough to support 8-10 percent of total Japanese steel production—representing more than one-third of Japan's imports. However, imported ores from Malaya, the Philippines, and China's Yangtze River Valley were disproportionately important to the Japanese war economy because they were of higher quality than Japan's domestic ores, which were high in sulfur and silicon, making them less suitable for producing the high-quality steel needed for military and naval applications.[497]

The Philippines was also Japan's best remaining source of imported copper. Copper was critical for producing electrical wiring for electronics, electricity production and transmission, large bronze castings like propellers for the shipbuilding industry, and brass cartridge cases for ammunition of all sizes. In 1938, Japan imported over 25,000 metric tons of copper ore from the Philippines—an amount equal to one-third of Japan's entire domestic production that year. The

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[496] Ibid.

[497] USSBS, *Coals and Metals in Japan's War Economy,* 68-78.

AEC estimated Japan's total refining capacity for 1941 at 129,000 metric tons, while Japanese wartime consumption reached 120,000 metric tons in 1943 and peaked at 134,000 metric tons in 1944. Thus, the ore and concentrates produced in the Philippines could have supported a significant share of Japan's total copper production and consumption.[498]

Japan's dependence on Philippine copper was such that the AEC Project Staff was concerned that export controls or preclusive purchasing could trigger war. "Although the preclusive purchase by the United States might not disturb the economy of the Philippines, such action, however, might result in the military invasion of the Islands."[499]

Japan relied heavily on the Philippine Islands for a significant portion of its ferroalloy requirements, particularly manganese and chrome. Before the war in Europe broke out, Japan sourced most of its manganese from high-grade deposits in India. However, Great Britain halted those exports through its own export control measures. In 1938, Japan imported 49,000 tons of manganese from the Philippines, which was of lower quality than the ore from India. This amount represented one-quarter of Japan's domestic production. Japan faced an even weaker position regarding chromite. In 1939, it imported 13,500 metric tons from the Philippines, but these stocks would be insufficient to meet even the relatively modest requirements of its partially mobilized war economy in 1942.[500]

AEC analysts were not only concerned about the benefits that Philippine exports provided to the Japanese economy; they were also worried that Japan was assisting Germany in circumventing the British blockade by re-exporting critical materials to Germany through the

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[498] Ibid., 133-134, 140.

[499] "Report No. CC4-1, Subject: Japan's Economic Vulnerability in Copper," 3.

[500] "A Plan for the Establishment of an Export Control Administration in the Philippine Islands." USSBS, *Coals and Metals in Japan's War Economy, Report No. 36*, 71-74.

Soviet Union.[501] In April 1941, the director of the British Ministry of Economic Warfare requested that the United States cut off strategic exports from the Philippines to Japan. By that time, US plans for export controls on the Philippines were already well advanced.[502]

On May 28, Congress passed House Joint Resolution 183, a resolution extending the Act of July 2, 1940, to the Philippine Islands and other dependencies. This resolution expanded the authority of the Administrator of Export Control "to all Territories, dependencies, and possessions of the United States, including the Philippine Islands, the Canal Zone, and the District of Columbia." Similar to the original July 2 Act, the administration justified the extension solely on the grounds that Philippine commodities were essential to US industry. The President formally extended export control by proclamation on the same day.[503]

Maxwell immediately dispatched Colonel Chickering, who was accompanied by a representative from the Division of Controls, to the Philippine Islands to establish the administrative control organization within the Office of the High Commissioner. The representative from the Division of Controls would approve or reject Philippine licenses based on directions issued by Maxwell and the AEC. The AEC promptly halted any further shipments of iron and steel scrap, even stopping the loading of a Japanese ship that was already in port, and established quotas on other critical materials. The Philippine Islands, which used its own

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[501] "A Plan for the Establishment of an Export Control Administration in the Philippine Islands." "Projects Section to Gen. Maxwell," dated May 2, 1941, Box 162, Folder General Staff, Entry 97 Office of Administrator of Export Control Central File, RG169, NACP.

[502] Memorandum From S.F. Clabaugh to Brigadier General Russell L. Maxwell, dated April 24, 1941, Box 995, Folder G-6, Entry 171 History of Export Control Exhibits, RG169, NACP. Sent via Averell Harriman, who was in London coordinating Lend Lease supplies.

[503] *H.J. Res. 183 A Resolution Extending the Act of July 2, 1940*. *FRUS*, 1931-1941, II Japan, Document 180 "Proclamation No. 2488, Signed by President Roosevelt, May 28, 1941."

currency, were not subject to the President's July 24 decision to freeze Japanese financial assets in the United States. Instead, Maxwell revoked all Japanese export licenses, effectively severing the Philippine resources from Japan's war economy.

V. Geopolitics

Turner directed a comprehensive effort to chart the economic weaknesses of both potential enemy and neutral nations in relation to the United States, its allies, and one another. His team analyzed the geographical distribution of key commodities, evaluating supply, demand, available stockpiles, and consumption patterns. They also assessed whether a targeted country could deflect an economic attack by accessing alternative sources, reducing civilian consumption, or substituting certain materials. The goal was to determine how these factors might shape an economic warfare program.

Central to this project was Turner's creation of an "economic warfare chart," designed “so that one could tell at a glance what steps would be necessary to put economic pressure on Country A, for example. The chart would show how it might be necessary to operate through three or four countries before the pressure would actually be felt by Country A."[504]

Before joining the Projects Section, Turner was a professor of history at Yale University, which was also home to the Yale Institute of International Studies, one of the intellectual centers for developing geopolitical theory in the United States. While Turner was working on his chart project, Yale Professor Nicholas Spykman was completing America's Strategy in World Politics. Published by the institute in 1942, Spykman's work quickly became a foundational text of

[504] “Conference with Colonel Thomas Hewes at His Law Office.”

geopolitics.[505] Eugene Staley, a professor of international economic relations at the Fletcher School of Law and Diplomacy, had also recently joined the Project Sections, where he worked with Chandler Morse to produce an economic "War Plan Orange." Much of Staley's published work on the role of raw materials in international relations was situated within the realm of contemporary geopolitics.

In a May 1941 memorandum, one AEC staffer noted the explicit theoretical connection between their activities and the theories of Alfred Thayer Mahan, the early 20th-century American strategic theorist and former Naval War College Commandant. Mahan's theories provided one of the main intellectual bases for emerging geopolitical thought: "Economic Warfare, it seems, is simply a logical extension of Mahan's doctrine of sea power. Keep supplies from reaching your enemy, whether by blockade or preemptive buying."[506]

At the beginning of June, Hewes informed Maxwell, "I thought you might be interested to know that I have requested Dr. Turner to begin a very thorough and complete study of the setup of the so-called Geopolitical Institute at Munich." He continued, "As I mentioned to you last evening, I am tremendously impressed with the possibility of a counterpart, even though on a modified scale, of such an enterprise here."[507]

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[505] Nicholas John Spykman, *America's Strategy in World Politics: The United States and the Balance of Power* (New York: Harcourt, Brace and Company, 1942), *passim.* In the book, Spykman explicated what became known as the "Rimland Theory," which held that the control of coastal regions around the Eurasian periphery was key to achieving global power. It was a response to Halford MacKinder's earlier "Heartland Theory" that proposed control of the Eurasian landmass—the "heartland"—was the key to global power.

[506] "Organization of British Ministry of Economic Warfare," dated May 12, 1941, Box 995, Folder G-6, Entry 171 History of Export Control Exhibits, RG169, NACP.

[507] "Memorandum from Projects Section to Maxwell Subject: Study of Geopolitical Institute at Munich," dated June 5, 1941, Box 995, Folder G, Entry 171 History of Export Control Exhibits, RG169, NACP.

The Munich Institute was founded in 1923 by Karl Ernst Haushofer (1869–1946), a German army officer turned academic who became a leading proponent of the emerging discipline of geopolitics—an interdisciplinary field examining the influence of geography on political power and international relations. Haushofer provided the intellectual framework and vocabulary that Nazi leaders used to articulate their expansionist goals.

At the time, neither Haushofer's works nor other publications on geopolitical theory from his institute were available in English in the United States. Hewes informed Maxwell that much of the Project Section's research would need to be conducted in German.[508] At the end of July, the Projects Section received a letter from E.J. Coil, the director of the National Planning Association, a nonprofit policy research institution in Washington, DC.[509] Coil reported that the association, with the support of the State Department, the Bureau of Budget, and the National Resources Planning Board, was sponsoring the translation and analysis of Haushofer's writings and those of his associates. This work was being undertaken by Professor Richard Hartshorne at the University of Wisconsin and Professor Derwent Whittlesey at Harvard University. Coil invited the AEC to provide a prioritized list of Haushofer's or other German geopolitical works for translation. Maxwell welcomed their assistance and arranged for further cooperation with the Projects Section.[510]

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[508] Ibid.

[509] After the war, Hewes served on the Board of Directors for the organization, but it is not clear if he had connections with it in 1941.

[510] Letter E.J. Coil to Captain Paul H. Rafferty, dated July 23, 1941 and Letter Brigadier General Russell L. Maxwell to E.J. Coil, dated July 29, 194, Box 700, Folder Geopolitik Writings (Haushofer, Karl Dr), Entry 88 Chief Projects, RG169, NACP. The National Planning Association later changed its name to the National Policy Association.

At this time, the AEC was also collaborating with another early American geopolitical scholar, Father Edmund Walsh at Georgetown University, to train their growing staff. Walsh was the founder of Georgetown's prestigious School of Foreign Service and a recognized authority on geopolitics. In the fall of 1941, Walsh coordinated with the AEC to train a group of Army intelligence officers "in the Geopolitical elements of the present war and consideration of plans for the future."[511] Shortly after the war ended, Walsh personally interviewed Haushofer as part of the Nuremberg Trials of Nazi leaders. Walsh's assessment of Haushofer's culpability in transforming geopolitics into a servant of Nazi ideology influenced the discipline for decades after the war.[512]

In his memo to Maxwell proposing that the Project Section establish a capability similar to the German Institute for Geopolitics, Hewes concluded: "Of course, it is nothing but an enlargement of your original conception of the Projects Section."[513] This statement is significant because it shows that Hewes believed the economic warfare theories and methods they were developing were firmly rooted in the geopolitical thinking of the time.

In 1942, Professors Whittlesey and Hartshorne published a book on Haushofer, based on their work for the National Planning Association, titled *German Strategy of World Conquest*. They argued that Haushofer's theories and other writings published by the Munich Institute for

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[511] "Memo Gerard to Maxwell Subject: Telephone conversation with reference to higher education program" dated August 6, 1941, Box 162, Entry 97 Office of Administrator of Export Control Central File, RG169, NACP.

[512] Patrick McNamara, *A Catholic Cold War: Edmund A. Walsh, S.J., and the Politics of American Anticommunism* (New York: Fordham University Press, 2005), 126.

[513] "Memorandum from Projects Section to Maxwell Subject: Study of Geopolitical Institute at Munich."

Geopolitics demonstrated that Germany launched the war as part of a "carefully designed scheme of world conquest."[514]

In the 1943 classic *Makers of Modern Strategy: Military Thought from Machiavelli to Hitler*, editor and Princeton Professor Edward Mead Earle included a chapter by Whittlesey titled "Haushofer: The Geopoliticians." Whittlesey wrote: "Geopolitics is a creature of militarism and a tool of war." Haushofer was "the alter ego of German geopolitics." He argued that both Germany and Japan had adapted Haushofer's geopolitical theories "to suit their government's program of conquest.[515] By the time the work was published, Earle was serving as the head of the Research and Analysis Branch of the Office of Strategic Services, where he was actively engaged in the American economic warfare campaign where he worked closely with Turner and the Office of Economic Warfare Analysis in the Board of Economic Warfare—the successor of the Projects Section.

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[514] John H. Hallowell, review of *German Strategy of World Conquest* by Derwent Whittlesey and *The World of General Haushofer: Geopolitics in Action* by Andreas Dorpalen, *The Journal of Politics* 5, no. 2 (May 1943): 187. Hallowell claimed that many of the authors' conclusions in the book were based on "facile generalizations."

[515] Derwent Whittlesey, "Haushofer: The Geopoliticians," in *Makers of Modern Strategy: Military Thought from Machiavelli to Hitler*, ed. Edward Mead Earle (Princeton, NJ: Princeton University Press, 1943), 388, 394, 409. After the war, Earle established security studies as a formal academic discipline.

Chapter 8 - Economic Warfare: Plan Orange

I. Introduction

The Army planners who wrote the War Trade Annex envisioned economic warfare as an integrated effort across all domains of national power: economic, diplomatic, psychological, and military. They wrote that the control of wartime trade would involve "questions of military strategy as well as commercial and diplomatic relations are involved."[516] Subsequent studies on economic warfare by the Army Industrial College and the Administration of Export Control supported this perspective.

Integrating economic warfare into American grand strategy required that the organization responsible for planning, directing, and coordinating economic warfare connect with the strategic organizations overseeing operations in each domain. The AEC was already well integrated with the State Department (diplomatic) and the national mobilization organizations—the ANMB, NDAC, and the recently created Office of Production Management (economic). By December 1940, the President had not yet established a strategic organization to oversee psychological operations, although he had tasked the recently created CIAA with conducting psychological operations in Latin America.[517]

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[516] "War Trade Annex (Revised) to the Industrial Mobilization Plan (1939)," 9

[517] In July 1941, Roosevelt created the Office of the Coordinator of Information with William J. Donovan as its chief. The President assigned his speech writer, Robert E. Sherwood, as Deputy Director responsible for national information/psychological operations directed towards both domestic and foreign audiences. In June 1942, the functions of the COI were separated into two new organizations: the Office of Strategic Services and the Office of War Information. These organizations divided responsibility for conducing psychological operations, while the CIAA continued to be primarily responsible for psychological operations in Latin America. OWI was responsible for domestic operations and some foreign operations, while the OSS conducted only foreign operations.

When Maxwell formally established his long-awaited Projects Section as an economic warfare planning staff in mid-December, the AEC was not yet fully integrated with the military dimension of national power. The President had designated export control as "a military function."[518] A significant portion of the AEC staff consisted of Army and Navy officers. Maxwell and the AEC were closely connected with OASW and the ANMB. Although these were military staffs, they focused on strategic feasibility rather than developing concepts for military operations to achieve strategic objectives. The military domain of national power was managed by the Joint Army and Navy Board and the respective service general staffs under the President.

In the preface to their study on export control—described by Maxwell as the AEC's "bible"—Clabaugh and his fellow officers wrote, "With the creation of the office of Administrator of Export Control, economic defense began to march as the comrade in arms of military defense."[519] In October 1940, when they wrote this, the statement was more aspirational than a reflection of institutional reality.

The War Trade Annex prescribed that economic warfare "steps will be taken with a knowledge of the proposed joint military plans and the views of the military as to the effect of foreign trade."[520] Maxwell was now ready to formally connect the AEC's economic warfare efforts with military strategy, as the first economic warfare planners had intended. By Summer 1941, Maxwell was able to report, "As waged by belligerents today, is coordinate with military and naval warfare."[521]

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[518] "Military Order."

[519] "Committee Report on Special Problem C, Subject: The Administration of Export Control."

[520] "War Trade Annex (Revised) to the Industrial Mobilization Plan (1939)," 21.

[521] "Activities of the Administration of Export Control in the Field of Economic Warfare."

II. Integrating with Military Strategy

In mid-December, the AEC was about to begin work on the first in a planned series of plans for economic warfare that were aligned with the military's war plans. Maxwell submitted a memorandum to the President recommending a more expansive economic warfare program directed by the AEC. In the memo, he wrote: "Because it is a principal weapon of defense and offense of transcendent potency, it should be coordinate to and coordinated intimately with the military and naval weapons."[522]

Maxwell was well-positioned to "coordinate intimately" with the military and naval war-planning staffs then developing strategic concepts for various wartime strategies. He was one in a small group of staff officers who had attended both the Army War College and the Army Industrial College.[523] At the time Roosevelt appointed him as the Administrator of Export Control, Maxwell was serving in the logistics (G-4) section of the Army General Staff. He had exposure to the Army's war plans as they existed in the spring of 1940. Prior to his role on the Army General Staff, Maxwell had served as a senior staff officer in the OASW and on the ANMB, gaining familiarity with the ongoing revision of the 1939 Industrial Mobilization Plan. His recent participation in both war planning and industrial mobilization planning provided him with a solid understanding of the role and potential of economic warfare in American strategy.

Maxwell also proposed closer planning and intelligence coordination directly to the Army General Staff. Major General Sherman Miles, the Assistant Chief of Staff for Intelligence

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[522] "Memorandum To: The President, From: Administrator of Export Control, Subject: Reasons for initiation of more complete external economic pressures and the role of economic warfare in protecting the national interest."

[523] Approximately 90 officers had graduated from both colleges. Other notable officers in this group included the future Supreme Allied Commander General Dwight D. Eisenhower and General Henry "Hap" Arnold, the commander of the US Army Air Forces.

(G-2), supported Maxwell's proposal. Since July, Miles and his intelligence division had been providing Maxwell with economic intelligence, primarily regarding Axis attempts to circumvent export controls. In a December 23 memo to General George Marshall, Miles stated that the AEC would be responsible for collating and analyzing economic intelligence and recommended "Direct liaison to be established and maintained between the Army and Navy Joint Planning Committee and the Project Section of the Planning Division of the AEC, to the end that matters under consideration or discussion by either agency may be known to the other and appropriate action taken."[524] A representative from the Army General Staff was added to Maxwell's advisory committee, establishing the first formal institutional connection between the AEC and the military organizations responsible for military strategy.

III. The Initial Plans

In their study on economic warfare completed just a week before the establishment of the Projects Section, Clabaugh and his fellow officers—many of whom were about to be assigned to the AEC—wrote, "While economic factors play an important part [in war], they produce their best efforts in conjunction with military, naval, and air operations." They recommended "that the dominant influence of economics on any future military effort warrants the extension of the War Trade Annex to include 'Color Plans.'"[525] The officers in the AIC had begun examining Japan's position regarding several strategic raw materials.

The "Color Plans" were war contingency plans developed by the Joint Army and Navy Board between 1904 and 1939, coded by colors corresponding to potential adversaries. War Plan

[524] Memorandum, From G-2 to Chief of Staff, dated December 23, 1940, Box 162, Folder General Staff, Entry 97, RG169, NACP.

[525] "Committee Report on Problem No. 36 Subject: War Trade and Economic Warfare."

Orange was designed for a conflict in the Western Pacific against Japan. Different revisions shared a common theory of victory: the US Navy would destroy the Japanese battle fleet and establish a naval blockade around the Japanese home islands to compel surrender.[526]

After its establishment, the Projects Section began country studies that formed the basis of country-specific economic warfare plans, starting with Orange (Japan).[527] By February, work on the Japanese study had begun. Hewes asked Dr. Eugene Staley, who at that time was a professor of international economic relations at the Fletcher School, to prepare a first draft of the Orange Plan. Staley was an expert on raw materials in international relations and a strategic thinker with a broad view of economic warfare. He had previously advised Hewes:

> Clausewitz said that war is merely the "pursuit of policy by other means." Economic warfare, like any other kind of warfare, is not an end in itself. Presumably, it is undertaken to achieve some goal of national policy which otherwise could not be achieved. What is our goal? Is it not, ultimately, to have a more secure and more prosperous world, where we can feel safe without being perpetually armed to the teeth, and where our people can make the most of their great resources and productive abilities in a peaceful and reasonably stable world economy? Now, methods of waging economic warfare may be intimately related to the post-war realization of these goals, as well as to the immediate purpose of exerting pressure on enemies or potential enemies.[528]

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[526] The most detailed description of evolution of War Plan Orange is Edward S. Miller, *War Plan Orange: The U.S. Strategy to Defeat Japan, 1897-1945* (Annapolis, MD: Naval Institute Press, 1991), *passim.*

[527] "Memorandum To: Mr. Baliff," dated December 20, 1940, Box 995, Folder G-4, Entry 171 History of Export Control Exhibits, RG169, NACP.

[528] "To: Mr. Thomas Hewes, From: Eugene Staley, Subject: Coordination of economic warfare efforts with Britain, and some of its broader aspects," dated January 30, 1941, Ibid.

Staley had completed a Ph.D. in economics at the University of Chicago. His most significant work from an economic warfare perspective was *Raw Materials in Peace and War* (1937), published by the Council on Foreign Relations. Staley argued that modern industrial civilization depends on international supplies of raw materials, and in a world threatened by war, nations prioritize self-sufficiency and control of strategic resources, creating a "raw materials armaments race."[529]

On February 12, Hewes wrote to Staley that they had already outlined the study on Japan and set up a “Far East Research Unit” with the help of the Commerce Department: "We are aware of the possibility of being called upon for some kind of a workable report developing the largest number of practical vulnerabilities which can be gotten together in a relatively short space of time. You are the only person we can think of who is qualified to take a shot at writing this preliminary report.... In short, we need you, and if you can make your services available for a while, it would be a great service to the general cause."[530]

IV. The Vulnerability Studies

In their "Primer" on economic warfare, the AEC planners stated, "The analysis of an enemy's economy in order to discover its vulnerability to various kinds of action is the necessary preparation for the waging of successful economic warfare. That part of an economy at which a specific act of economic warfare has a direct effect is a point of vulnerability. That combination of points of vulnerability, in terms of which acts of economic warfare have greatest destructive effect upon the enemy's economy, is its pattern of maximum vulnerability."[531]

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[529] Eugene Staley, *Raw Materials in Peace and War* (New York: Council on Foreign Relations, 1937), *passim*.

[530] Ibid.

[531] “The International Use of Economic Pressure as an Instrument of National Policy: A Primer.”

Hewes assigned Morse to prepare a series of studies assessing Japan's economic vulnerabilities. This process resembled how military intelligence and planning staffs develop estimates of the situation, identifying and describing the problems that must be addressed for an operation to succeed. In February, the Projects Section completed nineteen preliminary commodity studies using the limited information available. The primary purpose of these studies was to assist Maxwell and the advisory committee in deciding whether to add the studied commodities to the controlled list. Additionally, several reports examined the economic warfare potential of disrupting both Japanese and German imports.[532] Maxwell added all the commodities studied to the export control list over the following month.[533]

In January, the State Department had already organized interdepartmental committees of government experts on various raw materials. Headed by Leo Pasvolsky, the State Department project aimed to address post-war economic problems and policies, although the committees had not been very active.[534] Morse sought to involve many of the same experts in the Projects Section studies. He met with Pasvolsky, who "recognized both the general and immediate

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[532] Folder Commodity Reports. These studies covered the following commodities: beryllium, petroleum coke, cresylic acid, jute and jute manufactures, acetone, cadmium, lead, glycerin, carbon black, copra, coconut oil, palm oil, palm kernel oil, titanium, binder twine, iodine, selenium and tellurium, kapok, cork, pig bristles, true hemp, salt. Many of these commodities were studied again by the Inter-Departmental Commodity Committees.

[533] *FRUS*, 1931-1941, II Japan, Document 169 "Proclamation No. 2461, Signed by President Roosevelt, February 25, 1941," Document 171 "Proclamation No. 2463, Signed by President Roosevelt, March 4, 1941," Document 172 "Proclamation No. 2464, Signed by President Roosevelt, March 4, 1941."

[534] "Memorandum To: Mr. Hewes, From: R.M. Stephenson, Subject: Interdepartmental Committees on Raw Materials," dated February 1, 1941, Box 995, Folder G-4, Entry 171 History of Export Control Exhibits, RG169, NACP. Pasvolsky had set up eight committees with plans to add a further two.

importance of laying the groundwork for economic warfare and seems to be delighted that we are centralizing the work" and agreed to prioritize the AEC project.[535]

On February 25th, Maxwell, Hewes, and Morse met with leaders from the Tariff Commission and the Departments of Commerce, Agriculture, and Interior to formally establish sixteen interdepartmental commodity committees. Their goal was to analyze Japan's economy and identify potential vulnerabilities. [536] Hewes emphasized that the Projects Section was not attempting to create a large staff; instead, it planned to leverage expertise and personnel from other departments and agencies. Wayne Taylor, the Undersecretary of the Commerce Department, who had already instructed his Bureau of Foreign and Domestic Commerce to function as a Far Eastern Trade Committee in support of the Projects Section, stated that it was "impossible to over-emphasize the importance of this export control work." He assured that Commerce would prioritize the project entirely, a sentiment echoed by the other representatives.[537] Most experts were loaned from the Tariff Commission and the Departments of

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[535] "Memorandum To: Mr. Hewes, Subject: Pasvolsky Committees," dated February 21, 1941, and "Minutes of Meeting Organizing Commodity Committees," dated February 25, 1941, Ibid.

[536] The sixteen commodity committees were as follows:

1. Machinery
2. Motive Products
3. Iron, Steel, and Ferro-Alloys
4. Non-Ferrous Metals and Manufactures
5. Non-Metallic Minerals and Manufactures
6. Petroleum
7. Chemicals, Fertilizers, and Related Products
8. Fats and Oils
9. Fish and Fish Products
10. Food and Miscellaneous Agricultural Products
11. Textile Fibers
12. Textile Manufactures
13. Rubber
14. Leather Manufactures and Fur
15. Forest Products and Manufactures
16. Miscellaneous Products

[537] "Minutes of Meeting Organizing Commodity Committees."

Commerce, Agriculture, and Interior, but additional expertise also came from the AEC, the Federal Reserve, and the National Bureau of Standards. Notably, no experts from the State Department were included on the committees, and despite Pasvolsky's support, the State Department "did not lend much encouragement" to the project.[538]

For each commodity studied, the committees assessed Japan's potential economic vulnerabilities if imports were disrupted through American or combined American-British-Dutch economic warfare measures. These measures included independent and coordinated export controls, preclusive purchasing, diplomatic pressure, trade agreements, the British blockade system, and import controls on Japanese exports to deny Japan foreign currency for acquiring strategic raw materials, as well as shipping limitations. The committees examined not only the national origin of Japan's required imports but also the nationality of the corporations controlling the production of those raw materials. They sought to identify alternative sources for each commodity on which might rely. Finally, they estimated the economic costs of disrupting Japan's imports and exports on the economies of the United States (including the Philippine Islands), Great Britain and her Empire, the Commonwealth nations, the Netherlands East Indies, and the Latin American republics.

Collectively, the committees produced about 60 economic vulnerability studies, totaling over 1,200 pages. Not every commodity studied was deemed a viable target for economic warfare. Below are descriptions of some of the more important commodities recommended for targeting:

Oil: Japan was highly vulnerable in petroleum, relying on imports for approximately 80% of its consumption, primarily from the United States and the Netherlands East Indies.

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[538] "Conference with Colonel Thomas Hewes at His Law Office."

Existing stockpiles would last only about six months if imports were halted, severely crippling its military capabilities, transportation infrastructure, and overall industrial output.

Rubber and Carbon Black: Japan's rubber industry depended almost entirely on imported crude rubber from British Malaya and the Netherlands East Indies, as well as scrap rubber imports from the United States. Japan was currently attempting to secure economic control over rubber-producing regions in Indochina and Thailand; however, preclusive purchasing operations by the United States Rubber Reserve Corporation could limit the amount of rubber Japan could obtain from these sources. By the end of March, Maxwell had directed the Division of Controls to reject any further export licenses for scrap rubber from Japan. At the beginning of April, the AEC revoked all 281 of Japan's existing export licenses dating back to July 1940, amounting to 94,000,000 tons of scrap rubber.[539]

The Japanese rubber industry was also vulnerable due to limited access to carbon black, a material essential for tire production and other rubber goods. The United States was Japan's leading supplier, but Maxwell had added carbon black to the control list on March 4.[540] While

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[539] "Memo Administrator Export Control to Licensing Division," dated March 19, 1941, "AEC to State Subject: Directive 246 Scrap Rubber," dated March 19, 1941, "AEC to State Subject: Directive 259 Scrap Rubber," dated March 31, 1941, "Revocation No. 17," dated April 2, 1941, and "State Department to AEC Subject: Revocation #71," dated April 7, 1941, Box 271, Folder Japan, Entry 98 Office of Administrator of Export Control July 1940-May 1942, Central File (Area), RG 169 Records of the Foreign Economic Administration, National Archives at College Park, MD. "Report No. CC13-1, Subject: Economic Vulnerability of Japan- Rubber," dated March 6, 1941, Box 964, Folder Report No. CC13-1, Entry 158 Economic Warfare Studies of the Army Industrial College, RG169, NACP. The goal was to limit scrap exports to Japan to the average annual amount exported in "pre-war years" of 1936 and 1937, which Japan had already met. Japan had expanded its scrap rubber reclamation industry after this time period and reduced its imports of raw rubber to save foreign exchange—scrap rubber was less expensive—so the reduction to the pre-war level would have had an outsized impact on Japanese rubber production.

[540] *FRUS*, 1931-1941, II Japan, Document 169 "Proclamation No. 2461, Signed by President Roosevelt, February 25, 1941."

Japan produced some carbon black domestically, the quality was not sufficient for use in the rubber industry.[541]

Iron, Steel, and Ferro-Alloys: Japanese production of iron ore was "inadequate and off grade."[542] Native Japanese ore was high in sulfur, which caused significant deleterious qualities in finished steel without substantial additional processing, requiring additional strategic raw materials.[543] In 1938, Japan relied on imports for 78 percent of its ferrous metal needs, which included iron ore, scrap iron, steel, pig iron, and finished steel. Almost all of this came from the United States (38%), the Philippine Islands (11%), British Malaya (18%), and British India (7%). The Japanese could not easily replace the loss of U.S. supplies cut off by export controls. Although Japan had built up a large stockpile of iron ore, cutting off all imports would not have as immediate an effect as cutting off oil; however, stocks were "not so great as to render futile efforts to restrict further shipments."[544]

The production of various types of steel alloys required the addition of ferro-alloys such as manganese, molybdenum, chrome, tungsten, and nickel. Japan was particularly vulnerable in molybdenum, which is used for making high-strength steels, because it had no domestic

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[541] "Report No. CC7-1L, Subject: The Economic Vulnerability of Japan, Carbon Black," dated April 7, 1941, Box 964, Folder Japan Minerals, Entry 158 Economic Warfare Studies of the Army Industrial College, RG169, NACP. Domestic production was used for paint pigment.

[542] "Report No. CC3-1, Subject: The Economic Vulnerability of Japan in Iron and Steel," dated April 1941, Box 964, Folder Report No. CC3-1, Entry 158 Economic Warfare Studies of the Army Industrial College, RG169, NACP.

[543] High sulfur content weakens steel and can cause cracking and brittleness. It can cause fatigue failure and decreases the machinability and weldability of the steel, limiting its utility. Removing sulfur required a fluxing process in which materials like fluorspar are added to the molten metal to absorb impurities. Japan had limited access to fluorspar, which was critical not only to its steel industry, but was essential to aluminum production as well.

[544] "Report No. CC3-1, Subject: The Economic Vulnerability of Japan in Iron and Steel," 7.

production, its stockpiles were believed to be small, and global production was dominated by the United States. Japan also faced vulnerabilities in nickel; analysts estimated that Japan had an annual requirement of 10,000 tons but could only source about 2,000 tons domestically. In 1940, its imports from the U.S. increased tenfold, from 161 tons in 1939 to over 1,800 tons. Additionally, Japan was seeking to import nickel from new sources in French New Caledonia, Rhodesia, and Brazil. However, all these sources were susceptible to disruption from export controls or preclusive purchasing.[545]

The Japanese steel industry was also vulnerable in raw materials essential to the steel production process. Substantial amounts of the mineral fluorspar, which was used in a flux smelting process needed to remove impurities from iron ore or pig iron. Even larger quantities of fluorspar were essential to the aluminum industry. Japanese domestic production, primarily in Chosen and Manchuria, was insufficient for its requirements and it relied on imports from South Africa and, to a lesser extent, Mexico, to meet its needs.[546] The steel industry also was vulnerable in graphite, which was needed for the crucibles used in foundry casting operations. Japan imported graphite from French Madagascar and British Ceylon and had marginal stockpiles.[547]

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[545] "Report No. CC3-2a, Subject: The Economic Vulnerability of Japan in Ferro-Alloys," dated April 1941, Box 964, Folder Report No. CC3-2a, Entry 158 Economic Warfare Studies of the Army Industrial College, RG169, NACP. "Report No. CC4-4, Subject: The Economic Vulnerability of Japan in Antimony, Mercury, Molybdenum, Platinum, Tin and Nickel," dated May 20, 1941, Box 964, Folder Report No. CC4-4, Ibid. Maxwell placed nickel under export control on January 10, 1941 (Proclamation No. 2453). The other ferro alloys considered were included in the original export control list published on July 5, 1940.

[546] "Report No. CC5-4, Subject: The Economic Vulnerability of Japan in Bauxite and Fluorspar," dated April 2, 1941, Box 964, Folder Report No. CC5-3, Entry 158 Economic Warfare Studies of the Army Industrial College, RG169, NACP.

[547] "Report No. CC5-3, Subject: The Economic Vulnerability of Japan in Graphite," dated April 2, 1941, Ibid.

Aluminum: Japan was in the midst of a program to significantly expand its aluminum industry, aiming to increase production capacity from 23,000 tons in 1939 to 100,000 tons by 1941. U.S. export controls, the British blockade, and Canadian wartime requirements hindered Japan's ability to import aluminum.[548] American analysts believed Japan's production capacity was still below 50,000 tons per year, but if it could secure sufficient bauxite, it could achieve self-sufficiency in aluminum production. Japan was entirely dependent on imports of bauxite from the Netherlands East Indies, Malaysia, and India for its aluminum manufacturing. Government experts assessed that Japan may have built up a stockpile of bauxite sufficient to support 50,000 tons of aluminum production—equivalent to one year's production—but they also noted, "Without access to the Netherlands East Indian supply... Japan would be seriously crippled in her efforts to make aluminum for airplanes."[549] Furthermore, Japan required large quantities of fluorspar from South Africa or Mexico for producing synthetic cryolite, which is essential in the production process. Analysts believed Japan had only limited reserves of fluorspar, which could restrict aluminum production even if sufficient bauxite was available.[550]

Copper: American experts believed that Japan's civilian and military economies were highly vulnerable to disruptions in copper imports. Copper was critical for electrical wiring, machinery, industrial equipment, and military essentials such as brass for ammunition, ship fittings, and wiring for sophisticated electrical systems needed in modern aircraft, warships,

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[548] Aluminum exports to Japan from the US were halted by the original export control order dated July 5, 1940. The State Department and Treasury Department had already discouraged aluminum exports as part of their "Moral Embargo" implemented in December 1939.

[549] "Report No. CC5-4, Subject: The Economic Vulnerability of Japan in Bauxite and Fluorspar."

[550] "Report No. CC4-3, Subject: The Economic Vulnerability of Japan in Aluminum," dated May 20, 1941, Box 964, Folder Report No. CC4-3, Entry 158 Economic Warfare Studies of the Army Industrial College, RG169, NACP. "Report No. CC5-4, Subject: The Economic Vulnerability of Japan in Bauxite and Fluorspar."

vehicles, and communication and sensor systems. Based on trade data, it appeared that Japanese domestic production was meeting only half of its copper requirements. This assessment was somewhat overoptimistic, as Japan was importing more copper than necessary each year to build a large reserve stockpile.

Japan imported copper as refined copper or copper ore from Canada, the United States, the Philippine Islands, and Chile. Canada had already halted copper exports to support British wartime needs. Maxwell had added copper to the controlled list in January, disrupting U.S. exports.[551] Congress was preparing to pass legislation extending export control to the Philippines, which would cut Japan off from that source. The U.S. Metals Reserve Corporation was also working to preemptively purchase all of Chile's and Peru's copper output.[552]

Zinc: Zinc is essential for military production as an alloy for making brass and for galvanizing steel. Japan relied on imports for at least half of its requirements, with primary sources including Australia, Canada, Mexico, the U.S., and Indochina. Except for Indochina, all of these sources were vulnerable to disruption. Maxwell had added zinc to the controlled list on January 10.[553] Analysts believed Japan did not have a large reserve stockpile, so cutting off exports could quickly impact Japan's ability to produce brass for ammunition casings and to galvanize steel.

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[551] FRUS, 1931-1941, II Japan, Document 161 "Proclamation No.2453, Signed by President Roosevelt, January 10, 1941." Zinc, the alloying metal for making brass, and the copper alloys brass and bronze were also added to the control list in the same proclamation. Tin, the alloy needed to make bronze, was on the original list of controlled raw materials published on July 5, 1940.

[552] "Report No. CC4-1, Subject: The Economic Vulnerability of Japan in Copper," dated April 24, 1941, Box 964, Folder Report No. CC4-1, Entry 158 Economic Warfare Studies of the Army Industrial College, RG169, NACP.

[553] *FRUS*, 1931-1941, II Japan, Document 161 "Proclamation No.2453, Signed by President Roosevelt, January 10, 1941."

Tin: Tin is a necessary alloy for producing bronze and is used to create tin plate for food cans, packaging, manufactured consumer goods, and roofing and construction. American analysts estimated Japan's annual requirement at 5,000 tons, of which about 20 percent could be sourced domestically from low-grade ores. Japan imported the remainder from China and European possessions in Southeast Asia. Additionally, it imported approximately 50,000 metric tons of tin plate each year and large quantities—10,000 tons in 1939—of tin plate scrap from the United States. The committee noted that a cessation of imports would significantly impact Japanese shipbuilding, which required bronze for ship propellers and other fittings.[554]

Lead: Japan produced only enough lead within its empire to meet about 20 percent of its requirements, importing the remainder from Canada, Australia, the US, India, Mexico, and Latin America. Maxwell added lead to the controlled list on March 4.[555] Lead pipes were essential to support both civilian and military infrastructure, serving as paint pigment, solder, batteries, and ammunition. Analysts believed Japan lacked significant reserve stocks, so any disruption in imports would quickly lead to shortages in civilian and military supply chains.[556]

Mica and Quartz Crystals: Mica is used in the manufacture of radio condensers and tubes, airplane spark plugs, and components for electrical machines. The primary sources of strategically useful mica are India, Brazil, and Argentina. The British had already restricted exports from India, leaving Japan dependent on Latin American sources, where the US was

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[554] "Report No. CC4-4, Subject: The Economic Vulnerability of Japan in Antimony, Mercury, Molybdenum, Platinum, Tin and Nickel."

[555] *FRUS,* 1931-1941, II Japan, Document 172 "Proclamation No. 2464, Signed by President Roosevelt, March 4, 1941."

[556] "Report No. CC4-5, Subject: The Economic Vulnerability of Japan in Lead," dated May 20, 1941, Box 964, Folder Report No. CC4-5, Entry 158 Economic Warfare Studies of the Army Industrial College, RG169, NACP..

beginning preclusive purchasing operations to cut off Japanese supplies. Analysts believed Japan had no significant reserves, so blocking exports to Japan would rapidly disrupt the manufacturing of critical military electronic components.

High-grade quartz crystals are utilized for radio frequency control, optical devices, and high-precision electronic instruments such as radar and sonar. Brazil was the only source of suitable crystals, and Japan was purchasing 40 percent of Brazil's total production. Disruption of this supply would cripple Japan's ability to manufacture radio frequency-controlled devices essential for military communications and precision instruments. Analysts believed the US and Great Britain could preclusively purchase Brazil's total output.[557]

Abrasives: Most grinding operations, particularly in metal manufacture, are performed by artificial abrasives, whose output is an electric furnace operation and is influenced by the abundance and cost of electric power. Japan is the third largest importer from the US after the UK and Canada. The commodity committee reported: “It seems likely that a reported power and fuel shortage in Japan has curtailed the artificial abrasive industry of that country.” Other sources Germany, GB, Europe (largely cut off)[558] “It seems likely that severe embarrassment would result if foreign supplies were cut off from Japan at this time.” Grinding machines with artificial abrasives and industrial diamonds were placed under export control on the original controlled list

[557] “Report No. CC5-5, Subject: The Economic Vulnerability of Japan in Mica,” dated April 2, 1941, and “Report No. CC5-6, Subject: The Economic Vulnerability of Japan in Quartz Crystal,” dated April 2, 1941, Box 964, Folder Report No. CC5-5, Ibid.

[558] “Report No. CC5-1, Subject: The Economic Vulnerability of Japan in Abrasives,” dated April 1, 1941, Box 964, Folder Report No. CC5-1, Ibid.

on July 5, 1940.[559] Natural abrasives were added on December 20, 1940.[560] The impact on Japanese heavy industry was synergistic with the cessation of exports of all metal-working machine tools at the end of 1940.

Chemicals: Significant imports of salts, fertilizers—especially potash and phosphorite—and synthetic organic compounds were "indispensable" for the proper functioning of Japanese industry and agriculture. Most of these imports originated from European imperial possessions in Southeast Asia, Germany, and the United States. American analysts believed that "cessation of Japanese import and export trade in chemicals, fertilizers, and related products with non-Axis-dominated countries would have a pronounced effect on Japan's economy and an appreciable, though less significant, effect on the availability of foreign exchange." With the exception of the limited throughput of the Trans-Siberian rail line, the British blockade had largely cut Japan off from chemical imports from Germany and Europe. The committee cautioned that "any program of economic defense, however, must, in its execution, have the cooperation of Great Britain to be really effective."[561]

Nitrates and Fertilizers: In 1940, nearly half of the Japanese population lived on farms, and domestic agriculture provided 80 percent of Japan's food requirements, primarily in rice. The nutrient content of Japan's naturally poor soil had been depleted by intensive cropping, making

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[559] *FRUS*, 1931-1941, II Japan, Document 134 "Regulations Governing the Exportation of Articles and Materials Designated in the President's Proclamation of July 2, 1940, Issued Pursuant to the Provisions of Section 6 of the Act of Congress Approved July 2, 1940."

[560] *FRUS*, 1931-1941, II Japan, Document 158 "Proclamation No. 2451, Signed by President Roosevelt, December 20, 1940."

[561] "Report No. CC7-1A, Subject: The Economic Vulnerability of Japan: Chemicals, Fertilizers, and Related Products," dated April 7, 1941, Box 964, Folder Japan Minerals, Entry 158 Economic Warfare Studies of the Army Industrial College, RG169, NACP.

the application of fertilizer on an ever-increasing scale essential to Japanese agriculture.[562] Various fertilizers supplied the necessary nitrogen, phosphorus, and potassium, and they also served as important raw materials for the Japanese chemical industry. The commodity committees analyzed Japan's vulnerability concerning four primary types of fertilizer.

Ammonium sulfate is a synthetic fertilizer. Although Japan had the capacity to be self-sufficient, it lacked essential specialized equipment, diverted ammonia for military use, faced shortages of precursor raw materials, and did not have sufficient electrical power. Consequently, Japan became the largest importer, bringing in approximately 400,000 tons, or 20 percent of its requirements, in 1938. Ammonia and ammonium compounds, including ammonium sulfate, were included in the original export control list published on July 5, 1940.[563]

Sodium nitrate and other nitrates are naturally occurring. Japan imported an average of 41,000 tons each year and made large purchases from Chile, which led American analysts to believe it might have a stockpile as large as 100,000 metric tons. If imports were disrupted, they feared that these stocks would be redirected toward explosives production instead of agriculture. Chile was Japan's primary source for nitrates, and the US could utilize half of Chile's total output. The committee believed they could preemptively purchase the remainder of Chile's annual production. All nitrates and nitric acid were also included in the original export control list published on July 5, 1940.[564]

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[562] "Report No. CC7-1S, Subject: The Economic Vulnerability of Japan: Fertilizers," dated April 7, 1941, Ibid.

[563] *FRUS,* 1931-1941, II Japan, Document 134 "Regulations Governing the Exportation of Articles and Materials Designated in the President's Proclamation of July 2, 1940, Issued Pursuant to the Provisions of Section 6 of the Act of Congress Approved July 2, 1940."

[564] Ibid.

Potash was significant to the chemical industry for both military and civilian use. Japan was almost completely dependent on imports, primarily from British Palestine, Spain, and Chile, importing 250,000 tons in 1937. There was no substitute for potash. The committee recommended disrupting exports from Chile through preclusive purchasing, implementing export control from Palestine, and enforcing a British blockade from Spain. They assessed that "the results of a failure to apply potash to the soil will manifest in Japan in the first year following the cessation of imports. The depletion of potash stocks should cause a critical situation to develop in the second year." Maxwell established American export controls on potash on January 10, 1941.[565]

Phosphate rock was used in matches and military incendiaries. Japan could meet only one-third of its phosphate rock requirements from domestic sources, with imports primarily coming from the US or being controlled by the British. Japan required 1,000,000 metric tons annually, and disrupting these imports would have a serious detrimental influence on Japanese agricultural economy." Although phosphate rock was not on the American export control list, the committee believed it would be worth adding only if the British also agreed to halt their exports.[566]

Jute: Jute is a vegetable fiber used to make burlap bags, essential for distributing the rice crop. It was primarily cultivated in India, with some production in Burma. Japan depended on imports for approximately 95 percent of its jute requirements. The British had placed Indian and

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[565] "Report No. CC7-1V, Subject: The Economic Vulnerability of Japan Potash," dated April 7, 1941, Box 964, Folder Japan Minerals, Entry 158 Economic Warfare Studies of the Army Industrial College, RG169, NACP. Export Control was established by Proclamation No. 2453.

[566] "Report No. CC7-1U, Subject: The Economic Vulnerability of Japan: Phosphate Rock," dated April 8, 1941, Ibid.

Burmese jute under export control at the beginning of the war in September 1939, limiting exports to Japan. Analysts warned of an extreme scarcity of jute bags in Japan, suggesting that an embargo on jute would quickly impact food distribution and military logistics. In the last four months of 1940, Japan began purchasing large quantities of jute bags from US manufacturers before Maxwell added jute to the export control list in early March.[567]

Textiles and Silk: Japan's textile and silk industries were its largest export sector and source of foreign exchange, employing 1.2 million workers in 1937. However, employment dropped by a third to around 800,000 in 1940 as cotton yarn production decreased and rayon production increased. The textile industry relied on imports of raw cotton, wool, wood pulp, and salt for rayon yarn production. Additionally, the US was the primary destination for Japanese silk exports. Disrupting exports of cotton, wool, wood pulp, and salt, combined with import restrictions on silk—especially in coordination with the British Empire and Commonwealth nations—could significantly damage the Japanese civilian economy and limit access to foreign exchange.[568]

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[567] "CC11-3, The Economic Vulnerability of Japan in Miscellaneous Vegetable Fibers," dated April 5, 1941, Box 964a, Folder Report No. CC11-3, Entry 158 Economic Warfare Studies of the Army Industrial College, RG169, NACP. *FRUS*, 1931-1941, II Japan, Document 171 "Proclamation No. 2463, Signed by President Roosevelt, March 4, 1941." A Projects Section report on jute completed in early February 1941 reported that Japan had purchased 2,713 tons of jute bags from the United States in the last four months of 1940.

[568] "Report No. CC11-1, Subject: The Economic Vulnerability of Japan Raw Silk and Silk Wastes," dated April 5, 1941, Box 964, Folder Report No. CC11-1, Entry 158 Economic Warfare Studies of the Army Industrial College, RG169, NACP. "Report No. CC11-4, Subject: The Economic Vulnerability of Japan in Raw Cotton," dated April 5, 1941, Box 964, Folder Report No. CC11-4, Ibid. "Report No. CC11-5, Subject: The Economic Vulnerability of Japan in Raw Wool," dated April 28, 1941, Box 964, Folder Report No. CC11-5, Ibid. "Report No. CC15-1, Subject: The Economic Vulnerability of Japan in Forest Products and Manufactures," dated March 29, 1941, Box 964, Folder Report No. CC15-1, Ibid. "Report CC7-1Q, Subject: The Economic Vulnerability of Japan: Salt," dated April 7, 1941, Box 964, Folder Japan Minerals, Ibid. "Report No. CC12-1, Subject: The Economic Vulnerability of

The Projects Section staff recognized that the initial vulnerability reports would be constrained by the available data, the short timeline for production, most initial drafts were completed by mid-March, and the secrecy surrounding the project. Before work began, Louis Ballif, who had been loaned to the Projects Section from the Tariff Commission in December, warned Hewes that "the weakest link in the chain of information which will be required for the effective planning and prosecution of economic warfare will be the data pertaining to particular foreign countries. We will probably find that much of the available information relating to foreign countries will be old, incomplete, and otherwise deficient...."[569]

Ballif devised a plan to enhance the AEC's capacity to gather economic intelligence through the collaboration of other agencies.[570] With the assistance of the commodity committees, they intended to continuously update the vulnerability studies as new information became available and as the geopolitical situation evolved.[571]

Japan and the United States in Textile Manufactures," dated April 22, 1941, Ibid. "CC11-3, The Economic Vulnerability of Japan in Miscellaneous Vegetable Fibers."

[569] "Memorandum To: Mr. Hewes, From: Louis S. Ballif, Subject: Utilization of available sources to obtain supplemental information," dated January 14, 1941, Box 995, Folder G, Entry 171 History of Export Control Exhibits, RG169, NACP.

[570] Ballif's plans guided the activities of the Project Section's own intelligence section and eventually resulted in the creation of an Economic Warfare Division from the Department of Justice's Antitrust Division that worked with the AEC's successor organizations to gather, collate, and analyze economic intelligence in support of economic warfare operations.

[571] The Commodity Committees remained largely intact. When the United States entered the war in December 1941, the Bureau of Foreign and Domestic Commerce was transferred to the AEC's successor, the newly renamed Board of Economic Warfare.

V. The American-British Staff Conversations (ABC-1)

While Staley and the Projects Section staff began work on the Orange Plan, Maxwell asked Admiral Harold Stark, the Chief of Naval Operations, to assist his planners with their economic war plan. On February 17, Maxwell wrote:

> In the preparation of an economic war plan directed against Japan, the question of interference by naval forces with Japanese trade in the Malayan States and the Dutch East Indies has arisen. It is impossible to complete that section of the war plan until some estimate can be furnished as to how much the Dutch, British, and American fleets could interfere in that area in case of a declaration of war.[572]

Maxwell and his planners specifically wanted to know how long American, British, and Dutch naval forces could prevent the Japanese from seizing and shipping stocks of strategic materials like iron, rubber, and oil from Malaysia and the Dutch East Indies to Japan. The Navy jealously kept secret their war plans and declined to provide Maxwell with a written response, but agreed to meet in person with officers from the AEC, where they orally answered Maxwell's questions.[573]

In mid-March, the Army and Navy chiefs agreed to participate directly with the Projects Section staff in developing their economic warfare Plan Orange. In a joint letter, Army Chief of Staff General George Marshall and Stark informed Maxwell, "The Chief of Naval Operations and the Chief of Staff of the Army desire to cooperate and support completely the work of the

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[572] "Subject: Request for information of possible Naval operations in the Far East, To: Chief of Naval Operations," dated February 17, 1941, Box 995, Folder G-4, Entry 171 History of Export Control Exhibits, RG169, NACP.

[573] Ibid., Pencil note on the letter dated March 1, 1941.

Economic Warfare Committee on Far Eastern Trade. To this end, they have appointed representatives to meet with the Committee."[574]

The Joint Board would detail several war planners and intelligence experts to work directly with the Projects Section as part of a formal committee. The service chiefs also asked permission to review and comment on the plan before it was finalized. While the services were still unwilling to share specific details of their highly classified war plans, they believed these details were unnecessary for effective economic warfare planning.

Marshall and Stark told Maxwell, "It is not believed that these restrictions need materially affect the work of the Committee in its investigation of trade interruptions. For if the Committee approaches this subject on the basis of percentage interruptions, or geographic interruptions, its report should still indicate the most vulnerable points of attack, advantage of which might well be taken by the Army or Navy in warfare. The services of the Army and Navy representatives could well be used in guiding the Committee to useful and practicable areas of investigation."[575]

The service chiefs assigned one Army and four naval officers to a military-naval committee in the Projects Section: two officers from war plans, two from the Office of Naval Intelligence, and one from the Office of Naval Operations. The committee was chaired by LTC John Burr from the AEC and included Chandler Morse.[576]

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[574] "Confidential- Joint Letter From: Chief of Naval Operations and Chief of Staff , To: The Administrator of Export Control, Subject: Economic Warfare Committee on Far Eastern Trade—policy affecting Army and Navy representatives," dated March 17, 1941. Ibid.

[575] Ibid.

[576] "Office Memorandum No. 50," dated March 19, 1941 Box 162, Folder Chief of Staff, Entry 97 , Entry 97 Office of Administrator of Export Control Central File, RG169, NACP.

This action marked a shift by the Joint Board from the limited liaison established in December 1940 to direct participation in planning. The Joint Board's move towards direct involvement in economic warfare planning was likely a response to the changing strategic outlook regarding the war. However, at the end of January 1941, the Joint Board began two months of initial combined planning with the British military staffs, known as the American-British Staff Conversations (ABC).

The combined planning staff produced a strategy outline for defeating Germany and her allies known as ABC-1. Should the US enter the war, the planners agreed on seven "offensive policies."[577] These were:

1. To maintain an economic blockade of the Axis by sea, land, air, and through commodity control via diplomatic and financial means.
2. To conduct a sustained air offensive to destroy Axis military power.
3. To effect the "early elimination" of Italy as an Axis partner.
4. To conduct raids and minor offensives.
5. To support neutrals and underground groups in resisting the Axis.
6. To build up the necessary forces for the eventual offensive against Germany.
7. To capture positions from which to launch the offensive.

The first of these was clearly connected to Maxwell's and the AEC's economic warfare activities and planning. Even as the American and British military staffs were preparing the ABC-1 document, the Projects Section was planning to expand its studies to support possible future strategic bombing of industrial targets.

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[577] Watson, 377.

VI. Economic Warfare Plan Orange

By the end of April, the Projects Section had completed its studies and analyses, and on the first day of May, they submitted to Maxwell their economic warfare Plan Orange, now formally titled "A Coordinated Plan of Economic Action in Relation to Japan." The plan combined the commodity committees' analysis of Japan's economic vulnerabilities with options to target those vulnerabilities using various economic warfare methods as well as possible military and naval actions.

To date, no surviving copy of the plan has been discovered, but correspondence about the plan and the contents of the vulnerability studies provide insights into its purpose, scope, objectives, methods, and conception of a theory of victory. In a memorandum to Maxwell, Hewes provided a brief description of the plan: "The completion this day by the Projects Section of a coordinated, integrated, written plan of action which first exposes the economic vulnerabilities of Japan and then lays out in one, two, three order the exact steps by which to carry through an aggressive American effort to isolate and strangle her and eliminate her from the Axis, is a landmark in this country's effort to defeat Hitler."[578]

The plan addressed three potential scenarios. In their transmittal letter to Maxwell, the Projects Section described them as follows:

> Assumption A: That armed forces are not being used, but there is no objection to forthright, open avowed economic action against Japan in ways designed to give maximum effectiveness.

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[578] "Memorandum To: Brig. General R.L. Maxwell, From: Projects Section, Subject: Prompt Initiation of Economic Pressure," dated May 2, 1941, Box 995, Folder G-4, Entry 171 History of Export Control Exhibits, RG 169 Records of the Foreign Economic Administration, National Archives at College Park, MD.

Assumption B: That the United States Government, for reasons of high policy, wishes to avoid an open break with Japan or avowed discrimination against Japan, but at the same time wishes to adopt measures which will weaken Japan's economic power. Thus, subterfuges and more or less hidden pressures must be used.

Assumption C: That economic warfare is combined with the use of armed forces against Japan.[579]

Although the plan directly targeted Japan, its authors were clear that it would also indirectly target the German and Italian war economies. In their letter to Maxwell, the planners laid out their plan's dual objectives. This emphasis on the potential to degrade the European Axis reflected the "Germany First" strategy adopted by the Joint Board during the ABC talks in February and March.

The first objective was to seal the Japanese leak in the British blockade of the European Axis: "By means of direct, secondary, or tertiary boycotts, in cooperation with the British and on a worldwide basis, to endeavor to plug all leaks through which outside supplies are reaching Germany and Italy."[580] The second objective was "to endeavor to wrench Japan from the Axis by offering her the alternatives of: (a) establishment of a satisfactory political and economic settlement in the Far East, or (b) enduring an all-out campaign to isolate her economically."[581]

The plans also laid out a “theory of victory” by undermining military capabilities, assessing the feasibility of the enemy's war economy, and evaluating the acceptability of the

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[579] “Memorandum To: Brig. General R.L. Maxwell, From: Projects Section, Subject: Transmittal of Report on Japan,” dated May 1, 1941, Ibid.

[580] “Memorandum To: Brig. General R.L. Maxwell, From: Projects Section, Subject: Prompt Initiation of Economic Pressure.”

[581] Ibid.

costs to the Japanese people of supporting the Axis. In his letter to Maxwell, Hewes proposed, "What is the measure of America's ability to throw its economic weight into the battle against the Axis?... The other half is 'economic warfare'—driving straight at the heart of the enemy's internal living and his fighting power."[582]

The vulnerability studies, which formed the basis of the plan, addressed economic vulnerabilities related to each of these three strategic factors. The commodity committees had identified several potential weaknesses that they believed could become rapidly fatal to the Japanese economy if imports of targeted raw materials were limited or halted. Collectively, the studies showed how raw materials shortages could curtail crucial Japanese military capabilities, such as airpower, motorization, and advanced communications and sensor systems. They also indicated how shortages of industrial raw materials could severely reduce or even halt heavy industry below the minimum levels needed to sustain sufficient military power, let alone civilian production. Furthermore, they highlighted how shortages could lead to significant food shortages, unemployment in heavy industry, agriculture, fishing, and textile manufacturing, and a degraded quality of life across a range of basic needs.

The core conclusion, with significant strategic implications, was that if the US, Britain, and the Netherlands East Indies could prevent Japan from obtaining supplies of several different strategic materials for a certain period of time, the Japanese economy would be unable to sustain a war or perhaps even the support of the Japanese population. Based on estimates provided in the various vulnerability studies, this time frame could be as short as six months for oil and up to a year for other commodities, at which point shortages would trigger a series of systemic failures across interconnected industries, leading to progressive economic collapse.

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[582] Ibid.

Correspondence with military leaders and the vulnerability studies suggest that the plan likely incorporated nearly all economic warfare methods described throughout the documents, developing the theory and doctrine of American economic warfare, from the War Trade Annex to the Army Industrial College Studies and the Project Section's own economic warfare primer. Economic warfare methods included coordinated export controls, preclusive purchasing, import controls to limit Japanese access to foreign exchange for imports, diplomatic pressure or agreements with neutral countries, enforcement of the existing British blockade on European ports and shipping, and financial controls on foreign financial transactions.

Post-war assessments of the Japanese economy, based on more accurate and complete data, largely validated that the plan was conceptually sound, although it suffered from several potentially fatal shortcomings. Perhaps the most significant error was the general underestimation of the size of Japanese raw material stockpiles due to a failure to recognize the extent to which the Japanese had deliberately built reserves of strategic raw materials. What the AEC and other economic intelligence agencies missed was that Japan had begun its stockpiling campaign much earlier than they believed.

The AEC planners and the Commodity Committees also underestimated the impact of Japan’s own economic controls in reducing total raw material requirements and prioritizing war-related production. Although it is possible that the Coordinated Plan may have corrected for this, the Commodity Committees based their assessments on current and historical consumption patterns and generally were not able to provide estimates of minimum wartime requirements. The committees also failed to adequately examine and assess the interconnections in raw material consumption between different industries, likely a consequence of the hasty production of the studies and compartmentalization of the committees by economic sector. Finally, although

the Coordinated Plan likely reflected the military's own expectations and assumptions about the prospective combat operations, the planners likely overestimated the level of attrition Japanese military forces would experience in a potential war in Southeast Asia.

In August 1941, the Projects Section completed a follow-on report titled "The Economic Power of Japan to Wage War." In the report, the planners concluded that Japan had sufficient stockpiles of war materials to sustain military operations for eighteen months. However, prior to the AEC's export control program, the Japanese had been able to maintain these stockpiles, but by the beginning of July 1941, they were forced to begin consuming their reserve stocks.[583]

Despite these shortcomings, the Coordinated Plan was a significant achievement with lasting influence. The plan was widely distributed and read by leaders of many executive agencies with strategic responsibilities, including cabinet secretaries, Vice President Henry Wallace, and General Marshall and Admiral Stark on the Joint Board along with their war planning and intelligence staffs, as well as the British Ministry of Economic Warfare.[584] Through the planning process, Maxwell and the Projects Section leaders achieved a level of military cooperation, participation, and buy-in that the British Ministry of Economic Warfare was never able to achieve. This cooperation with the military would continue throughout the war and help shape the American strategic bombing campaigns in Europe and against Japan.

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[583] "Notes on the informal conference held Thursday, 8 March 1945, in Dr. Tayler's office," dated March 8, 1945, Box 1 Folder Manuscript: Conference held in Dr. Tayler's office with Col. Shoemaker and William Conklin, Entry 144 Historians Reports of Interviews, RG169, NACP.

[584] Transmittal documents are located in Box 271, Entry 98 Office of Administrator of Export Control July 1940-May 1942, Central File (Area), RG169, NACP. "Conference with Colonel Thomas Hewes at His Law Office."

VII. Industrial Objectives for Strategic Bombing

Before the "Coordinated Plan" was completed, Morse and his team were already contemplating their next project. In a memo to Morse dated March 12, Ballif wrote, "Now that the commodity studies are pretty well advanced, I think we should give some thought to what the commodity committees should undertake next." He pointed out that "the commodity studies will indicate what economic pressures might be exerted on Japan as long as we are not actually in a 'shooting' war. Obviously, if the United States and Japan were to go to war, trade between the two countries would cease, and therefore, many of the opportunities for exerting economic pressure would disappear. It seems to me, therefore, that the next task of the commodity committee is to get together information that would be of assistance to our armed forces should we become involved in an armed conflict with Japan."

Ballif then proposed that after completing the vulnerability studies, the commodity committees should begin preparing a series of studies specifically to assist the Army Air Force in conducting a strategic bombing campaign directed against the Japanese economy. He informed Morse that the Army and Navy would be interested in "a classification of manufacturing plants to indicated the relative importance in the economy of Japan of plants of different kinds; the location of such plans and other data that might help identify them from the air; location of storage places of strategic materials; principal and alternative ocean trade routes to Japan from sources of necessary materials, etc."[585]

[585] "To: Mr. Chandler Morse, Chairman Steering Committee, From: L.S. Ballif, Subject: Next phase of the work of the commodity committees," dated March 12, 1941, Box 995, Folder G-4, Entry 171 History of Export Control Exhibits, RG169, NACP.

It is unclear how much Maxwell and his Projects Section staff knew about the American and British Staff Conversations occurring at that time, but the two national military staffs had agreed that should the United States join Great Britain in the war against Germany, the American Army Air Forces would collaborate with the Royal Air Force in a "sustained air offensive to destroy Axis military power."[586] In the Rainbow 5 war plan, created to implement the ABC-1 agreement, the Joint Board planned to deploy three Army Air Force heavy bombardment groups to Great Britain for strategic bombing against Germany. This was the first time the American Joint Board had formally endorsed strategic bombing as a concept of American military strategy.[587]

The initial group of general staff planners and intelligence officers assigned by the American service chiefs to work with Maxwell and the Projects Section on the economic warfare Plan Orange did not include any representatives from the Army Air Force. To proceed with a series of strategic bombing studies, the Projects Section needed to collaborate directly with the Army Air Force.

In mid-April, Lieutenant Colonel Burr, the officer overseeing the Projects Section, and Chandler Morse met with officers from the Office of the Chief of the Army Air Corps and its Intelligence Office. One of the Air Corps officers working with the Projects Staff on the industrial bombing project was Major Haywood Hansell, who served as the Chief of the Operations Planning Branch of the Foreign Intelligence Section. Hansell was a proponent of strategic bombing who would shape the American strategic bombing campaigns against both

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[586] Watson, 375-380.

[587] Maurice Matloff and Edwin M. Snell, *Strategic Planning for Coalition Warfare, 1941–1942*, United States Army in World War II: The War Department, ed. Kent Roberts Greenfield (Washington, D.C.: Office of the Chief of Military History, Department of the Army, 1953), 39-40, 43-44.

Germany and Japan throughout the war. He was in the process of preparing his own studies of industrial bombing targets in Germany. In a few months, he would author the Air War Plans Division Plan 1 (AWPD-1) as part of the Joint Board's "Victory Program" planning.[588] The Air Corps leaders agreed to assign Hansell and Major Malcolm Moss to the AEC Military-Naval Committee to collaborate with the Projects Section on their bombing studies.

The day after completing the "Coordinated Plan," the Military-Naval Committee, now including officers from the Air Corps, met and agreed "to investigate the location of Japanese industrial plants, shipyards, transportation facilities, etc., and [their] relative importance to the Japanese wartime economy."[589] Over the summer, the Projects Section produced a series of six reports describing and assessing the importance of potential Japanese industrial targets, categorized by target type. The Projects Section and its successors maintained boxes of index cards, each containing information about potential strategic bombing industrial targets filed by target set, which they continually updated for use by the Army Air Forces.[590]

As the Projects Section completed their Industrial Objectives studies, the leaders of the Army Air Forces requested that the AEC continue to assist with planning. At the end of July, Lieutenant General Delos Emmons asked Maxwell and the AEC to evaluate the vulnerability of American industry to strategic bombing to assist his staff in planning for the air defense of the

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[588] Charles Griffith, *The Quest: Haywood Hansell and American Strategic Bombing in World War II* (Maxwell Air Force Base, AL: Air University Press, 1999), 61. The author is not aware of any history of American strategic bombing in World War II which recognizes the contributions of the AEC. Although Hansell was actively working with the AEC and the Interdepartmental Commodity Committees, Griffith asserted, "Hansell's work on target systems was remarkable, especially considering the lack of support he received."

[589] "Minutes: Meeting of the Military-Naval Committee, May 2, 1941," dated May 2, 1941, Box 995, Folder G-4, Entry 171 History of Export Control Exhibits, RG169, NACP.

[590] The card files are archived in Entry 500 Indexes to the Economic Intelligence File 1942-1945, RG169, NACP.

United States.[591] In August, the Intelligence Section requested that the Projects Section and the Commodity Committees prepare a new series of industrial objectives targeting studies on the German economy.[592]

The close relationship between the economic warfare planners in the AEC and the strategic bombing planners in the Army Air Force continued throughout the war. The economic warfare planners in the AEC and its successor organizations made significant contributions to the development and execution of American strategic bombing campaigns in both Europe and the Pacific. The American strategic air forces integrated economic warfare planners into their own planning processes to help design campaigns by identifying, prioritizing, and selecting strategic target sets, as well as assessing the success of both the campaigns and individual bombing missions. Maxwell's and the Projects Section's success in gaining the confidence of the military services stands in stark contrast to the failure of the British Ministry of Economic Warfare to influence the Royal Air Force's strategic bombing campaign after Arthur Harris took command of Bomber Command in February 1942.[593] Harris derided the MEW as "the amateurish, ignorant, irresponsible, and mendacious MEW" and their selection of "panacea targets."[594]

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[591] "Conference in Gen. Emmons' office, Air Combat Command, Bolling Field on July 24, 1941," dated July 29, 1941. Box 162, Folder General Staff, Entry 97 Office of Administrator of Export Control Central File, RG169, NACP.

[592] "MID/G-2 to OEC-EDB Industrial Bombing Objectives in German-controlled Areas," dated September 25, 1941, Box 271, Folder Japan, Entry 98 Office of Administrator of Export Control July 1940-May 1942, Central File (Area), RG169, NACP..

[593] Harris, 97, 288. Charles Webster and Noble Frankland, *The Strategic Air Offensive Against Germany, 1939–1945, Volume III, "Victory"* (London: Her Majesty's Stationery Office, 1961), 123.

[594] M.R.D. Foot, *SOE in France: An Account of the Work of the British Special Operations Executive in France, 1940–1944* (London: Her Majesty's Stationery Office, 1966), 382. Dingle Foot was a director at the MEW during the War.

VIII. Conclusion

No published military or strategic history that the author is aware of mentions the "Coordinated Plan for Economic Action in Relation to Japan," let alone ascribes any influence on American war planning to it. However, the plan may have had a significant impact on American strategy that has been overlooked by historians—much like the AEC and American economic warfare. There is one unpublished official history and two pieces of circumstantial evidence supporting this claim.

The first is an unpublished monograph by an Army historian produced for the Office of the Chief of Military History. In 1961, Henry Morgan produced a 200-page study titled "Planning the Defeat of Japan: A Study of Total War Strategy." Morgan made the following statement about the "Coordinated Plan," indicating that it influenced American strategy "both before and after Pearl Harbor":

> Finally, on 4 April 1941, Admiral Stark and General Marshall asked the Administrator of Export Control to prepare a plan for conducting economic warfare against the Axis Powers... [T]hey were able to prepare a draft in two volumes of what was entitled a "Coordinated Plan for Economic Action in Relation to Japan." While it never achieved the final form of an approved plan, it gave some meaning to the vague plans for a blockade of Japan and became an important guide to later actions against Japan, both before and after Pearl Harbor.[595]

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[595] Henry G. Morgan Jr., *Planning the Defeat of Japan: A Study of Total War Strategy* (Washington, D.C.: Office of the Chief of Military History, Department of the Army, 1961), 95. Morgan, who was an Army lieutenant colonel at the time, was a historian in the Army's Office of Military History where he worked with Dr. Louis Morton on a sequel volume to the Morton's *Strategy and Command: The First Two Years*, one of the volumes of the Army's *United States Army in World War II* series, commonly known as the "Green Books." Morton's volume was on the

The next piece of evidence is the first wartime statement of combined strategy produced at the Arcadia Conference between Roosevelt, British Prime Minister Winston Churchill, and their respective military staffs held in Washington, DC, shortly after Pearl Harbor. In the initial draft of the strategy document, the strategic objective for immediate operations in the Far East and Western Pacific was described as "Maintaining only such positions in the Eastern theater as will safeguard vital interests while we are concentrating on the defeat of Germany." It was the same statement the military chiefs had agreed upon in March.[596]

However, the American Chiefs of Staff insisted on inserting an additional phrase into the sentence, so that it read: "Maintaining only such positions in the Eastern theater as will safeguard vital interests *and deny to Japan access to raw materials vital to her continuous war effort* while we are concentrating on the defeat of Germany."[597] [emphasis added] The expansion of strategic objectives to include deliberate economic warfare measures was completely consistent with the core theory of victory articulated in the "Coordinated Plan." Furthermore, the plan had been

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war in the Pacific against Japan. Morton had used some of Morgan's previous work in preparing *Strategy and Command*. As part of their joint project, Morgan became familiar with the source material on which Morton based his first volume. The project was ultimately cancelled, but Morgan used what he had learned and the source material from Morton's work to prepare his monograph. It is therefore likely that Morgan's evaluation of the Project Sections "Coordinated Plan for Economic Action in Relation to Japan" was based on his review of primary source documents linking the plan to subsequent American strategic decisions. Morgan's monograph was used as a source for Volume 5 of the official Marine Corps *History of US Marine Corps Operations in World War Volume 5: Victory and Occupation* by Benis Frank and Henry Saw, Jr., published in 1968.

[596] "Memorandum by the British Chiefs of Staff," dated December 22, 1941, Box 1, Folder American-British Joint Chiefs of Staff Index, Safe Files, FDRL.

[597] "Memorandum by the US and British Chiefs of Staff," dated January 10, 1942 Box 1, Folder American-British Joint Chiefs of Staff Index, Safe Files, FDRL.

reviewed by all of the American strategic leaders involved with the Arcadia conference with the possible exception of the President himself.[598]

Finally, the decision in August to reinforce American forces in the Philippines following the coordinated embargo on Japanese raw materials by the United States, Great Britain, and the Netherlands East Indies makes more strategic sense when assessed in the context of the "Coordinated Plan," especially if the strategic planners believed these forces would only have to hold out for six months to a year before economic warfare measures caused the forecasted collapse of the Japanese economy.

Most of the additional military capabilities dispatched were especially well-suited for interdicting Japanese maritime communications to prevent the transportation of raw materials from potential conquests in Southeast Asia. These included an additional squadron of modern submarines, bringing the total submarine force of the Asiatic Fleet up to 29 submarines.[599] An additional modern cruiser was also dispatched.[600] The US Army Air Force planned to deploy four Heavy Bombardment Groups equipped with seventy B-17 heavy bombers. From their Philippine bases, the bombers could not reach industrial targets in Japan, but at that time the B-17 was being touted by the Army as a lethal ship-killer.[601] The Army was also sending a group of 52 Dauntless SBD dive bombers, which would gain notoriety for their ship-killing prowess in later naval battles.[602] The Navy also included additional PBY flying boats, which specialized in

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[598] No evidence has been discovered indicating whether the President ever saw the “Coordinated Plan.”

[599] Submarine Squadron Two with submarines of the Porpoise, Salmon, and Sargo classes.

[600] CL-47 USS Boise

[601] Only one of the heavy bombardment groups would arrive in the Philippines before the war began.

[602] The Army version was known as the A-24. The group’s aircraft, which unlike the heavy bombers were shipped on merchant vessels, were en route, but did not reach the Philippines before the war broke out.

searching the ocean for enemy ships.[603] The British decision to send the fast battleship *Prince of Wales* and the battlecruiser *Repulse* to Singapore to act as commerce raiders also makes more sense.

[603] Louis Morton, *The Fall of the Philippines*, United States Army in World War II, ed. Kent Roberts Greenfield (Washington, D.C.: Center of Military History, United States Army, 1953), 31–48.

Chapter 9 - Integrating with the British Ministry of Economic Warfare (MEW)

I. The ABC Exchange

After the fall of France in June 1940, the British Ministry of Economic Warfare faced the same fundamental problem that the Admiralty and Foreign Office had faced during the first three years of World War I. Without the cooperation of the United States, economic warfare measures conducted by the British alone could not sufficiently shut off the flow of strategic raw materials from the overseas neutrals and non-belligerents in Latin America and Asia from supplying the needs of the Axis war economies in Europe. Although the United States was conducting its own independent economic warfare campaign specifically to aid the British in their war against Germany and Italy, the lack of coordination between the two campaigns left gaping holes in the British blockade of continental Europe. During the nine months preceding the Japanese attack on Pearl Harbor and the American entry into the war as a full belligerent, the British and US economic warfare agencies incrementally integrated their efforts to increasingly close off Axis access to foreign resources.

One of the outcomes of the American and British Staff Conversations was an agreement to increase information sharing through the exchange of military missions. [604] The American Chiefs of Staff asked Maxwell to establish formal liaison between the British Ministry of Economic Warfare (MEW) and his Administration of Export Control (AEC), which they

[604] Matloff and Snell, 41–42.

recognized as the US economic warfare agency and the MEW's counterpart.[605] Brigadier General Russell L. Maxwell, the Administrator of Export Control, told his staff that the exchange was the first step towards coordinating American economic warfare with the British.[606]

Following the establishment of the American export control system in July 1940, the British Foreign Office occasionally passed on requests to the State Department requesting that Maxwell restrict the export of certain commodities or that American procurement agencies preclusively purchase other commodities in Latin America to keep them out of Axis hands. The American agencies generally did not directly respond to the British requests or, in some cases, had already been working on the requested action. In December 1940, Joseph Green, the chief of the State Department's Division of Controls, told British representatives that he "considered it extremely unlikely that this Government would be prepared to even consider entering into a formal agreement to coordinate British and American export controls at this time." However, he did indicate that export control decisions were being made that "would be pleasing" to the British Government."[607]

Maxwell and the AEC, for their part, were advocating for closer coordination with the British as a part of their increasing focus on economic warfare planning. In January 1941, before the ABC conference, Major Samuel Clabaugh and Lieutenant Colonel Burr from the AEC Planning Division met several times with the staff of the Bureau of Budget to discuss plans for

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[605] "Chronological History of the Economic Defense Board," undated, Box 2, Folder Chronological History of the Economic Defense Board, Entry 146 Office of Administrator, Records Analysis Division, Historical Monographs Prepared Outside Division, RG169, NACP, 24.

[606] "Memorandum To: Chandler Morse, From: M.M. Fagan, Subject: Meeting with General Maxwell," dated April 21, 1941, Box 995, Folder G-4, Entry 171 History of Export Control Exhibits, RG169, NACP.

[607] FRUS, 1940, IV The Far East, Document 661 "Memorandum of conversation by the Chief of the Division of Controls (Green)."

expanding the AEC into a the larger, more capable economic warfare agency like the War Trade Administration envisioned in the War Trade Annex. In each of those conversations, the officers emphasized the need for closer liaison with the British. [608]

The Planning Section hoped to expand its own current and projected economic warfare operations into a combined economic warfare campaign with the British Ministry of Economic Warfare. At the same time that the initial meeting of the ABC was concluding, Eugene Staley, who was about to become the lead planner and primary author of the AEC's first formal economic warfare plan, told Project Section chief Thomas Hewes, "What I want to suggest is that there would be great advantages not only in "coordination" in the narrower sense of keeping each other informed and agreeing to act in common, but also in actual joint direction of the important economic phase of warfare."[609]

II. MEW Organization

On March 24, Averell Harriman, who was in London at the time working out details of the recently passed Lend Lease Act with the British Government, wired Maxwell that Noel Hall, the recent director of the intelligence division of the Ministry of Economic Warfare, was then en route to Washington "to take charge of the economic warfare work" at the British Embassy. Harriman recommended that Maxwell get in touch with Hall.[610] Prior to the war, Hall had been

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[608] "Memorandum for Colonel R.L. Maxwell Subject: Conference with Budget Officials," dated January 24, 1941, Box 995, Folder G-4, Entry 171 History of Export Control Exhibits, RG169, NACP. Conferences took place on January 11 and January 23, 1941. In response to the NDAC Memo dated November 27, 1940, the President had directed the Bureau of Budget to study the best organization for the

[609] "To: Mr. Thomas Hewes, From: Eugen Staley, Subject: Coordination of economic warfare efforts with Britain, and some of its broader aspects."

[610] "Personal for Wayne Taylor, General Russell L. Maxwell, Alexander Henderson, W.L Clayton from Harriman," dated March 24, 1941. Box 995, Folder G-4, Entry 171 History of Export Control Exhibits, RG169, NACP. Taylor

the Director of the National Institute for Economic and Social Research before taking one of the top leadership posts in the MEW. His arrival in Washington marked a significant expansion in British efforts to coordinate their economic warfare strategy with the Americans'.

The British government had activated the Ministry of Economic Warfare on September 3, 1939—the day it declared war on Germany following the invasion of Poland. Economic warfare was the cornerstone of Anglo-French strategy at the beginning of the war and British strategy after the unexpectedly rapid German conquest of France,[611] although British leaders differed in their theories on how economic warfare would achieve victory, the British Chiefs of Staff were counting on economic warfare to degrade the German war economy enough to significantly reduce German combat power, enabling a British military victory achieved with greater relative power.[612] The consensus view of the Ministry of Economic Warfare was that extreme shortages of one or more strategic materials—in 1939, the candidates were iron ore (steel) and oil—would trigger a rapidly progressive failure of the German war economy.[613] Neville Chamberlain, the British Prime Minister until May 1940, expected economic warfare to create a financial and employment shock that would trigger "a collapse of the German home front."[614] Chamberlain's

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was the Undersecretary of Commerce and Clayton the head of the Reconstruction Finance Corporation. Both were actively involved in the ongoing American economic warfare effort.

[611] J. R. M. Butler, *Grand Strategy, Volume II: September 1939 – June 1941*, History of the Second World War: United Kingdom Military Series, Ed. J.R.M Butler (London: Her Majesty's Stationery Office, 1957), 10., Talbot Imlay, "Allied Economic Intelligence and Strategy during the 'Phoney War'," *Intelligence and National Security* 13, no. 4 (1998): 111-112.

[612] Butler, 10.

[613] Imlay, 111-112.

[614] David Stafford, "The Detonator Concept: British Strategy, SOE and European Resistance after the Fall of France," *Journal of Contemporary History* 10, no. 2 (April 1975): 188. Hugh Dalton, who became the Minister of Economic Warfare in May 1940 also promoted this theory at the beginning of war. Note the similarity to pre-World

successor, Winston Churchill, proposed that the British blockade reprise its alleged success in the First World War and that hunger would bring down Hitler just as it had humbled the Kaiser.[615]

The Ministry was the successor to the World War I Ministry of Blockade established in 1916 in response to the need to coordinate better what had thus far been a failing economic warfare campaign centered on a naval blockade of Germany and the other Central Powers. Due to the legacy of the Great War in Great Britain, economic warfare was still generally referred to there as the "blockade."[616]

After the world war, the Committee of Imperial Defense (CID), the government organ for setting and coordinating the grand strategy of the British Empire, including the Commonwealth Nations, set up an Advisory Committee on Trade Questions in Time of War, also known as the ATB Committee, to maintain continuity in economic warfare theory and practice. The committee

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War I theory of victory described by Nicholas A. Lambert in *Planning Armageddon: British Economic Warfare and the First World War* reviewed in first chapter of this dissertation.

[615] Medlicott, 1:666. Cox, 24. The view that food shortages had caused Germany to collapse in 1918 was nearly universal at the beginning of World War II—including among the Germans. The reasons for this belief and its probability are discussed in the first chapter of this dissertation.

[616] "The Organization and Work of the British Ministry of Economic Warfare." Medlicott, 1:16 1n. The British coined the phrase "Economic Warfare" to replace the term "Blockade" during the interwar period. The historian of the World War II British "Blockade," William Norton Medlicott, included a selection from a 1948 letter from Desmond Morton, one of the British officers involved with development of economic warfare during the interwar period. He wrote to Medlicott, "I can say that the dropping of the term 'blockade', whether or not it was a useful point for the lawyers, took place primarily in order to emphasize the widening scope of the duties of the Ministry concerned. Between the First and Second World Wars it had been realized that in what was called "total war" many civilian elements had to be taken into account, not only in defensive, but also in offensive operations. Precisely when this conception received official sanction, I cannot tell you, but it was considerably before the precautionary mobilization of MEW at the Munich period." The first attested use of the term in British planning documents was in June 1937.

rarely met in the decade after the war, and its studies were "very academic in character." The Foreign Office also prepared some very basic plans for a future organization within the Foreign Office resembling the Ministry of Blockade. In 1931, the CID created an Industrial Intelligence Center with a small staff to study and report to the CID on the industrial and economic preparedness of potential opponents to make war. On the outbreak of war in 1939, the IIC became the nucleus for an Intelligence Division of the MEW.[617]

The political success of the Nazis in Germany in 1933 energized the ATB Committee which produced a pair of reports in late 1933 and early 1934 examining methods of applying economic pressure on Germany. In 1935-1936, their focus shifted to Italy and the Abyssinian Crisis before the German reoccupation of the Rhineland returned the planning focus to Germany. This marked the beginning of deliberate and detailed planning for economic warfare by the CID. In 1937, the ATB Committee established an Economic Pressure on Germany Sub-Committee which began economic warfare planning in July 1937 in anticipation of establishing some form of Ministry of Economic Warfare. Its plans formed the basis for an Operations Division in the MEW.[618] In July 1939, the CID completed a "Handbook of Economic Warfare" as the basis for the MEW's organization and operations.

While the Ministry of Economic Warfare was explicitly designed to be the successor to the Ministry of Blockade from previous World War, the planners in the CID wanted an agency with a more expansive ability to coordinate the direct attack of economic targets by the Royal Air Force's Bomber Command and economic warfare operations beyond the those deployed in

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[617] Medlicott, 1:13-14.

[618] Ibid., 13-15. Nicholas Mulder, *The Economic Weapon: The Rise of Sanctions as a Tool of Modern War* (New Haven, CT: Yale University Press, 2022), 179–225. Chapters 7and 8 deal with League of Nations and Italian, German sanctions.

the Great War.[619] They envisioned conducting these operations across a strategic geography divided into three theaters of operation: the British Empire and Commonwealth, neutral countries, and enemy territory.[620]

The Ministry acted as an "Economic Warfare General Staff" that relied on other ministries and agencies within the British Government to carry out most of its economic warfare functions.[621] Despite this role and the prominence of economic warfare in British strategy, the MEW as an organization had limited connections and access to the makers of British grand strategy.[622] In 1941, responsibility for the development and direction of grand strategy resided in the military and civil committees of the War Cabinet.[623] After Churchill became Prime Minister in May 1940, the War Cabinet itself only operated as a committee of last resort, with most of the leadership of the war being conducted by the Prime Minister himself as the Minister of Defense, supported by two military committees—one for operations and one for supply. When Clabaugh was in London, the Operations Committee consisted of the Prime Minister, the Lord Privy Seal, the Foreign Secretary, the Ministers of the military services, and the military chiefs of staff led by the Secretary of the Committee of Imperial Defense. The military Chiefs of Staff were supported by a Joint Intelligence Committee and a Joint Planning Committee.

The Minister of Economic Warfare was not a member of the war cabinet. The MEW was administratively subordinate to the Foreign Office, which nominally represented the MEW on the Defense Committees. However, as the AEC had experienced with the State Department,

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[619] Medlicott, 1:1.

[620] Ibid., 17-24.

[621] "The Organization and Work of the British Ministry of Economic Warfare."

[622] Cox, 63

[623] Butler, 4-8, 247-250, 588.

priorities in economic warfare were often conflicted with priorities in foreign relations. The only direct link to the Defense Committees was through the Joint Intelligence Committee, of which the MEW's Director of Intelligence was a member. The MEW's role on the Committee increased after the German seizure of Norway and Denmark in April 1940.[624]

The MEW underwent several reorganizations during the war as its leaders sought to best adapt its organization to solve evolving problems with available resources. When it was established in 1939, its departments were divided by intelligence, planning, action, and administrative functions. The intelligence and planning departments frequently failed to keep up with changes to the operational environment, and were described as "running behind trying to catch up with the bus!"[625] After the fall of France, the Ministry reorganized its departments along geographical and functional lines, with most departments having their own intelligence and planning sections.

In the Spring of 1941, the Minister of Economic Warfare was Hugh Dalton, a former professor at the London School of Economics and a Labor Party Member of Parliament who had also served a tour in the Foreign Office. At the outset of the war, he had been a prominent advocate for a strict blockade and a critic of Chamberlain and appeasement. He had become minister with the formation of the Churchill government in May 1940.[626] The effective direction of the MEW was the responsibility of its Director General, Frederick Leith-Ross, an economist who also served as the chief economic adviser to the British Government. Under the Leith-Ross, the MEW was organized into two branches: operations and intelligence.

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[624] Cox, 54.

[625] "The Organization and Work of the British Ministry of Economic Warfare."

[626] Cox, 51-52.

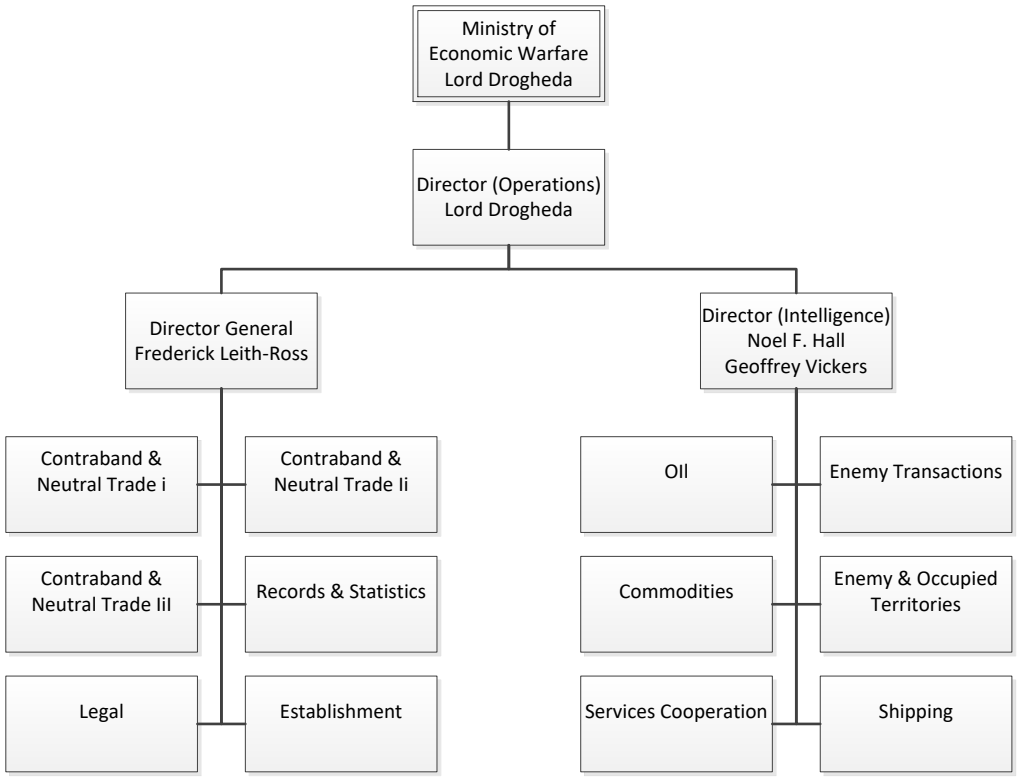

Figure 9.1. Ministry of Economic Warfare, June 1941

The operations branch, officially titled the General Branch, was directed by Henry Charles Ponsonby Moore, the Earl of Drogheda. He was a member of the House of Lords who had served in the Foreign Office from 1907-1917 and who had studied law after World War I. The branch consisted of three Contraband and Neutral Trade Departments, a Records and Statistics Department, and two administrative departments: Establishment/Finances and Legal. The three trade departments directed and coordinated blockade operations. Each of the departments was responsible for a specific geographic region. The Records and Statistics Department provided blockade intelligence support to the trade departments.[627]

[627] Medlicott, 1:463-465. "The Organization and Work of the British Ministry of Economic Warfare."

The intelligence branch, recently rechristened as the Enemy Branch, was directed by Geoffrey Vickers, who replaced Noel Hall when he left for Washington. Vickers had received the Victoria Cross as an officer in the Sherwood Foresters "Robin Hood" battalion (Vickers was from Nottingham) in World War I before becoming a lawyer specializing in international business and public administration. Prior to joining the MEW, Vickers had been sent to South America to develop plans "for the protection of British interests" and interfere with enemy economic and information activities there.[628] The Enemy Branch included departments for Enemy Resources, Enemy Transactions, Oil, Shipping, and Service Cooperation. The Enemy Resources Department performed analysis of the enemy war economies and studied commodities in the same way as the Project Section-led Commodity Committees. The role of the Enemy Transactions Department, formerly called the Financial Pressure Department, was more operational than intelligence. It worked to prevent the build-up and utilization of enemy financial assets in neutral countries. The Shipping Department managed the ship-warrant system and analyzed enemy and neutral shipping networks. The Oil Department collated and analyzed information on enemy oil production, facilities, and utilization. The Service Cooperation Department included an Objectives Section that provided targeting recommendations and assessments of results of strategic bombing missions to the Air Ministry and a secretariat that provided economic intelligence assessments to the British Joint Intelligence Committee, of which Vickers, as the MEW's intelligence director, was a member.[629]

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[628] Peter Davies, "Geoffrey Vickers and Lessons from the Ministry of Economic Warfare for Cold War Defence Intelligence*," Intelligence and National Security* 31, no. 6 (2015): 810.

[629] Medlicott, 1:463-46. "The Organization and Work of the British Ministry of Economic Warfare."

One final department, the Surpluses Department, worked directly for the Director-General Leigh-Ross and was responsible for developing plans to mitigate the negative economic effects of surplus commodity production caused by the disruption of pre-war trade patterns. The Department also directed the MEW's pre-emption operations (preclusive purchasing in American parlance), which were funded by the Treasury but conducted by the United Kingdom Commercial Corporation or the Ministries of Supply and Food.[630]

III. History of the MEW

From the beginning of the war, the MEW and the British economic warfare campaign had suffered a continuous series of failures and setbacks. To some extent, these were the consequence of unrealistic expectations based on inaccurate assessments of the results of the blockade in World War I, propped up by inaccurate intelligence information filtered through uncritical analysis. However, the unanticipated German military success that remapped the economic geography of Europe was the major contributor. The failures of their early economic warfare plans left the British increasingly dependent on the hope that the United States would intervene with their own nascent economic warfare capabilities to restore the possibility of eventual victory.

Even before the war, the Industrial Intelligence Center and the CID had overestimated the extent of German economic mobilization and assessed that the Nazis had limited potential to increase munitions output while underestimating the stockpiles of strategic raw materials and food. They also believed German morale was already low and that the cohesion of German society was precarious and could easily be destabilized.

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[630] "The Organization and Work of the British Ministry of Economic Warfare."

Their first major operational setback occurred even before the Germans had crossed the Polish frontier, when the Soviet Union agreed to supply Germany with massive amounts of raw materials it needed.[631] Well before President Roosevelt committed the United States to become the "Arsenal of Democracy" in December 1940, Soviet leader Joseph Stalin had committed the Soviet Union to becoming the Arsenal of Evil.

In April 1940, the British planned to sever Germany from a large supply of Swedish iron ore by occupying Norwegian ports needed to transport the ore, but the Germans seized Norway first.[632] In May and June, the fall of France, Belgium, and the Netherlands not only collapsed the Anglo-French "traditional" blockade but also provided Germany with additional large stocks of critical commodities, industrial plant, and laborers. Following the French collapse, a pro-Nazi coup in Romania delivered non-Soviet Europe's largest oil fields—which had previously been mostly controlled by British companies—to supply the German military and war economy. The following Spring, German divisions seized control of the Balkans and their rich metal and mineral supplies, largely consolidating German control of nearly all of non-Soviet Europe's economic resources. Finally, by the summer of 1941, it was clear that the British strategic bombing campaign—one of the cornerstones of pre-war economic warfare planning—had failed to cause any appreciable damage to targeted German industries.

With the Germans in control of or with access to the entire Atlantic coastline of continental Europe and without control over many of the maritime approaches that had previously supported control bases, the over-committed Royal Navy could no longer support the

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[631] Joachim Hoffmann, "The Soviet Union up to the Eve of the German Attack," in *Germany and the Second World War, Volume IV: The Attack on the Soviet Union*, ed. Research Institute for Military History (Oxford: Oxford University Press, 1998), 115–116.

[632] The larger Swedish iron ore fields were only connected by rail to ports in northern Norway.

traditional Blockade system. The MEW reconceptualized the blockade "from the seas, to the quays" into a new system they described as "control at the source." In this system, neutral merchant ships transporting cargos to five remaining European neutrals were required—against the threat of possible interception and detention by the Royal Navy or the loss of access to British port facilities, insurance, and banking services—to obtain Navicerts [Navigational Certifications] certifying that they were not carrying cargo destined for the European Axis.[633]

In the Spring of 1941, this "paper blockade" included considerable gaps through which a steady stream of strategic raw materials from both the Western Hemisphere and the British Empire was leaking through in sufficient quantities to sustain the German war economy. The leaks included goods transshipped through the adjacent European Neutrals as well as through Vichy France and Italy. Diplomatic concessions made to Neutrals by the British Foreign Office often constrained blockade enforcement by the MEW and the Royal Navy. In the Pacific, the Japanese and Soviets were supplying Germany through Vladivostok and the Trans-Siberian Railroad. From Brazil and Argentina, the Italian transatlantic air service LATI was airlifting strategic materials directly from Latin America to Axis Europe. Large numbers of blockade runners managed to slip past British blockade patrols. Finally, British financial reserves could not sustain enough preclusive purchasing to absorb the global surplus of many strategic commodities, incentivizing neutral traders to turn to Axis agents for business.[634]

IV. The Liaison Missions

By sending Hall, one of the MEW's directors, to Washington, the British hoped to recruit American assistance to plug the leaks. The AEC maintained liaison with the MEW in

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[633] Medlicott, 1:59-60.

[634] "The Organization and Work of the British Ministry of Economic Warfare."

Washington through the Hall and the MEW staff at the British Embassy. Maxwell and other AEC leaders attended conferences proctored by the State Department with the MEW personnel.[635] The State Department, however, did not permit Maxwell's Projects Section Staff to meet with their MEW counterparts in an official capacity, so Hewes and his staff arranged for regular clandestine meetings, often at night, to keep up to date on British economic warfare activities. [636]

To be his representative to the Ministry of Economic Warfare in London, Maxwell selected Major Samuel Clabaugh (soon to be promoted to Lieutenant Colonel). Clabaugh was credentialled as an Assistant Military Attaché and accompanied the Military Attaché, Brigadier General Raymond Lee, when he returned to London from the ABC conference. They arrived in England on April 11 in a flying boat by way of Bermuda and Lisbon. Clabaugh reported that on arrival, he was "given a warm and noisy reception by the Huns soon after landing." After making his way to London, he noted that "London hotels are not overcrowded, and except for the AA [Anti-Aircraft] fire during a raid, it's the quietest big city in the world."[637] The MEW gave him the "most cordial welcome and cooperation on every hand." He was somewhat taken aback by the state of working conditions there. He asked Maxwell to share with the AEC staff: "Tell them if they could take one look at the conditions which the MEW must operate here, they would never again complain about personnel, space, or supplies."[638]

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[635] "An History of Export Control," 39.

[636] "Conference with Colonel Thomas Hewes at His Law Office."

[637] Letter from Samuel Clabaugh to Russell L. Maxwell, dated April 16, 1941, Box 995, Folder G-6, Entry 171 History of Export Control Exhibits, RG169, NACP.

[638] Ibid.

In his following dispatches, Clabaugh provided his initial assessment. “If there is one thing that stands out as a result of my conferences thus far, it is that the Ministry of Economic Warfare is more warfare than economic.”[639] He later explained that “The British recognize the difference between the various economic aspects of war, on the one hand, and the field of economic warfare on the other. The Ministry is primarily responsible for the damage to and destruction of the enemy's economy. Its operations are offensive warfare and it does not concern itself except indirectly with questions of British internal economy….”[640] Clabaugh shared that many in the MEW were envious of the AEC's close connection with the military. “The opinion has been expressed on every hand that we were fortunate in the recognition that export control and economic warfare were military functions.” [641]

While Clabaugh’s mission was limited to information sharing, both the American and British economic warfare organizations wanted to expand their relationship to coordinate “allied controls” and other economic warfare measures.[642] Clabaugh pressed Maxwell on the importance of establishing an “allied economic GHQ” [General Headquarters] to “make and administer a concerted plan of economic measures” by the United States, the British Empire, the Dutch East Indies, and some of the Latin American Republics.[643] In a later dispatch, he wrote:

> It has been stated that the center of gravity of economic warfare moved to the Western Hemisphere when the Export Control Act was passed on July 2, 1940. It is anticipated

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[639] Letter from Samuel Clabaugh to Russell L. Maxwell, dated April 24, 1941, Box 995, Folder G-6, Entry 171 History of Export Control Exhibits, RG169, NACP.

[640] “Paraphrase of Code Radiogram Received at the War Department at 11:43, April 29, 1941,” dated April 29, 1941, Ibid.

[641] Letter from Samuel Clabaugh to Russell L. Maxwell, dated April 24, 1941.

[642] Ibid.

[643] Ibid.

> that the British Dominions and their allies and certain neutral nations will cooperate in plugging preventable leaks in the instrumentation of British economic warfare if the United States will currently assume responsibility for reorganizing economic warfare and propose a coordinated plan which will include export control, control of transactions with enemies of Great Britain, control of ships' bunkers, stores and repairs, and preemption.[644]

To some degree, Clabaugh's assessment of the MEW's strategic sentiment likely reflected his and Maxwell's desire to formally establish the AEC as the American headquarters for economic warfare. However, his summation also reflected the strategic reality that in the current war, the MEW's resources and capabilities were more limited than those of their US counterpart. British economic warfare was following the pattern of the First World War. In that war, the effectiveness of the British blockade was limited by Germany's ability to obtain through the Northern Neutrals enough of the strategic raw materials from the Western Hemisphere that it needed to sustain its war economy until the United States entered the war and the economic warfare campaign conducted by the American War Trade Board finally sealed the blockade. Only the economic and diplomatic power of the United States could overcome the systemic shortcomings in the British economic warfare campaign and plug the gaps in its blockade.

In his April 24 dispatch to Maxwell, Clabaugh included a memorandum from the MEW Director General Leith-Ross proposing coordinating preclusive purchasing of tungsten, rubber, copper, industrial diamonds, and quartz crystals in Latin America. Leith-Ross also asked for assistance in pressuring Brazil to close down the Italian LATI transatlantic airline service which the Axis was using to airlift supplies of strategic raw materials the Axis could only obtain in

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[644] "Paraphrase of Code Radiogram Received at the War Department at 11:43, April 29, 1941."

South America as a way to bypass the British blockade.[645] Leith-Ross complained, "We can find no effective way of stopping this means of transport." The British also hoped that Maxwell would extend export controls to the Philippines. "Anything you can do to impress on the United States Government the urgency of effective action to close this source of supplies to the enemy would be of the greatest help to us."[646] Unknown to Leith-Ross, Maxwell and his Projects Section had already been working on each of the actions he had requested. In some cases, like preclusion in Latin America and Philippine export controls, action has already been initiated.

In May, the MEW presented Clabaugh with an even more comprehensive and detailed plan for a combined Anglo-American preclusive purchasing program for South America. In recognition of AEC's status as the lead agency in American economic warfare matters, they asked that Maxwell deliver the proposal to the British Embassy and to the State Department in Washington. The MEW planners stated, "Our minimum objectives in every case should be to stop any supplies to the European Axis and to keep Japanese supplies down to normal." They argued, "If a purchase will, or even most probably may damage the Axis war effort, it should be undertaken unless it entails disadvantages to ourselves."[647] It was a view that took for granted the scale of American economic power. Every commodity included in the British plan had already been identified by the Projects Section and the Department of Commerce as targets for the American preclusive purchasing campaign in Latin America, which was just beginning to ramp up.

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[645] These strategic materials included industrial diamonds, quartz crystals, mica, and platinum. Brazil did not halt flights of the *Linee Aeree Transcontinentali Italiane* (LATI) air service until December 1941.

[646] Memorandum by F.W. Leith-Ross on purchases of strategic commodities in South America, dated April 16, 1941. Box 995, Folder G-6, Entry 171 History of Export Control Exhibits, RG169, NACP.

[647] "Pre-Emption Programme for South America," dated May 1941, Ibid.

In May, Congress passed legislation extending Maxwell's export control authority to the Philippine Islands and began to restrict exports from the Philippines to Japan shortly afterwards. In June, the MEW section at the British Embassy in Washington sent a letter to Lieutenant Colonel Burr in the Projects Section suggesting that the AEC and MEW work together to reduce Japan's supply of iron ore from Southeast Asia. If the AEC were to limit iron ore exports from the Philippines to Japan to pre-war levels, the British would ensure that the Japanese could not replace the Philippine iron ore by increasing its imports from British Malaya, which was its other main source of supply. Chandler Morse noted that the move by the MEW could be evidence of "collaboration between the members of the MEW here and the Projects Section, which General Maxwell has been attempting to establish for many months."[648]

In June, Maxwell ordered Clabaugh to return to the United States in the next month. The commercial attaché at the American Embassy in London would temporarily take over liaison with the MEW until arrangements for a permanent replacement could be made. Maxwell was expecting that the President would soon approve an AEC plan to expand the AEC into a larger economic warfare organization—a modified version of the War Trade Administration proposed by the War Trade Annex of the Industrial Mobilization Plan—with the personnel, funding, and authority to deploy or direct the additional methods of economic warfare the Projects Section had been planning for since December. Clabaugh had been a key contributor to the plan for the new organization. Part of his mission to London was to study and assess the MEWs organization, administrative procedure, operational methods, and economic warfare experiences to distill appropriate lessons that Maxwell and his subordinates could apply to the anticipated new

[648] "Memorandum From: Chandler Morse, TO: M.W. Tracy Subject: British Letter Regarding Exports of Iron Ore to Japan," dated June 20, 1941, Ibid.

organization. With a decision from Roosevelt pending, Maxwell wanted Clabaugh back to help him implement the next phase of American economic warfare.

Clabaugh brought back with him a report on the MEW titled "The Organization and Work of the British Ministry of Economic Warfare." Maxwell distributed the report to the President, Vice President, civilian and uniformed military leaders, and to key leaders in other relevant agencies. The report read like a hagiography of the MEW. "It would be difficult to conceive of a better example of wise planning and able administration—public or private—than that offered by the Ministry of Economic Warfare," Clabaugh wrote.[649] Post-war assessments by W.N. Medlicott, the official wartime historian of the MEW, and other historians who have studied the Ministry were not as sanguine as Clabaugh's estimate of the situation.[650] Even some contemporary comments by MEW leaders were much less complimentary. For example, Hugh Dalton, the Minister of Economic Warfare, claimed that the Foreign Office had unloaded their unwanted staff on the MEW. In his journal, he described various senior civil servants in his ministry as "useless," "weak as water," and "incompetent."[651]

Clabaugh, Maxwell, and the other leaders in the AEC were aware of many problems with British economic warfare. Only a few months earlier, Clabaugh and his fellow officers at the Army Industrial College had been critical of the British approach to economic warfare. Major Logan had lectured the officers attending the college: "The present war has demonstrated on the one hand that long-range planning by Germany for economic sufficiency of material resources has effectively diminished the danger of economic strangulation, and, on the other hand, that the

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[649] "The Organization and Work of the British Ministry of Economic Warfare."

[650] See Medlicott, Cox.

[651] Cox 51-52. Cox does note that Dalton tended to be "acerbic" in his comments.

uncoordinated planning of England and France has nullified their almost unlimited economic power."[652] In a report that Clabaugh helped prepare, they wrote: "The attitude of the British government prior to the invasion of Norway demonstrated an almost complete faith in economic strangulation. Britain defensively entrenched itself behind economic lines of fortification and hoped for the opponent to give way while Germany aggressively fought to secure additional resources and maintain existing economic routes of supply."[653] Clabaugh updated this assessment in his July report. He wrote:

> Economic warfare is a long-term process. In the beginning, there was a far too optimistic belief that the war could be won by economic warfare alone, while the armies sat on either side of the Maginot line and the air forces dropped leaflets. When the fallacy of this became evident, there was a tendency in some quarters to the other extreme—to a far too pessimistic view that economic warfare had no place in the war at all. Both extremes, of course, were wrong.[654]

The leaders of the AEC were also aware that the British blockade of Axis Europe was leaking like a sieve and that the British alone did not have the economic or financial resources to pressure neutrals or conduct a broader preclusive purchasing campaign effectively. Only a few days after Clabaugh finished composing his report, Maxwell and some of his senior staff met with Antonin Basch, a Czech economist and former adviser to the United Kingdom Commercial Company. The UKCC was created in early 1940 to conduct preclusive purchasing operations in the Balkans in an attempt to prevent Germany from obtaining important strategic raw materials

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[652] "Presentation on Economic Warfare," undated, Box 698, Folder Bases for Development of Plans, Major Paul P. Logan, Army Industrial College Entry 88 Chief of Projects Section, RG169, NACP..

[653] "Committee Report on Problem No. 36 Subject: War Trade and Economic Warfare."

[654] "The Organization and Work of the British Ministry of Economic Warfare."

such as zinc and chromium. Basch had recently immigrated to the United States and was lecturing on economics at Brown and Columbia Universities, where he was completing a book titled *Our New Economic Warfare.*[655]

In the meeting, Basch was critical of the MEW and the UKCC. The UKCC preclusion campaign had failed even before the recent German invasion of the Balkans. He believed that MEW's intelligence analysts were underestimating the German stocks of strategic raw materials as well as German use and production of substitute *ersatz* materials. The future of the British Blockade was bleak. He warned: "There will be no major economic problem for Hitler to solve if the Russian campaign is successful, and he obtains control of the oil of Iraq and Iran."[656]

In addition, the structural and legal differences between the American and British systems of government, especially in those differences in how they developed and conducted grand strategy, limited the direct applicability of the MEW's organization and administrative methods to future American warfare organization.[657] Of the MEW's economic warfare methods and functions that Clabaugh had examined, there was only one—the British Navicert system enabled by its Prize Courts and unique maritime jurisprudence developed during World War I—

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[655] In 2023, Routledge republished a new edition of Basch's book as part of its Routledge Library Editions: WW2 series. It was originally published in 1942.

[656] "Memorandum for Brig. General Maxwell, Subject: Meeting in General Maxwell's Office, July 25, 1941," dated July 29, 1941, Box 995, Folder G-4, Entry 171 History of Export Control Exhibits, RG169, NACP..

[657] "Chronological History of the Economic Defense Board," 27. Throughout the Winter and Spring of 1941, the Bureau of Budget was working on a series of plans for the future organizational structure for administrating economic warfare. In mid-May 1941, representatives from the Bureau of Budget met with Hall and the Washington staff of the MEW to "derive useful suggestions." They found the MEW "did not prove to be a very fruitful source of information" on the topic.

that the AEC wasn't already planning for.[658] In some ways, for example, in its closer relationship with military services, the AEC was already outperforming the MEW.

The purpose for which Clabaugh wrote his assessment, and the primary use for which Maxwell and his staff used the report, was to legitimize and endorse the AEC's own proposed program for the management and direction of American economic warfare. Clabaugh emphasized and praised those aspects of the MEW and of British economic warfare that reinforced the AEC's plan based on the template of the War Trade Annex.

One notable example of this in Clabaugh's report is his inclusion of the perspective of some of the MEW planners on the importance of rubber as an economic warfare target. The discussion mirrored the emphasis AEC planners had placed on conducting economic warfare through "rapier-like strokes" against the "pattern of maximum vulnerability" of the enemy's war economy. The passage provides insight into the AEC's visualization of one of its future campaigns.

> Think of rubber. The mobility of the German army rests largely upon rubber. Rubber is a German deficiency; they do not make anything like enough artificial rubber for their needs, and artificial rubber is not satisfactory for all purposes even when it is available. Their growing dominion contains no rubber trees. It will contain no rubber grooves even if it stretches to Dakar, to Suez, to Baghdad, to Baku.
>
> Suppose then, that rubber is found to be a suitable objective of economic war and that an attack is being planned on rubber—for economic war is not always just a way of attrition; an attack may be planned on a commodity just as it may be planned on Cyrenaica. What are the weapons that can be used to attack rubber? The army hits rubber when it captures

[658] Gordon and Dangerfield, 39, 45-46.

Italian supplies in Libya. The navy hits rubber when it sinks a shipload or three in the Mediterranean, as it did the other day. The R.A.F. could hit rubber in Westphalia if it managed to get a bomb through the roof of a particular factory. A resourceful Polish saboteur could hit rubber if he did something to stop increased coming through from the Pacific. An adroit British diplomat in Moscow, before Germany invaded Russia, could hit rubber if, as part of some political deal, he could induce the Russians to reduce German allocation of freight space on the Trans-Siberian railway. Of course, the Governors of British possessions in the Far East can hit rubber by making sure that no British rubber goes directly or indirectly to Germany; and so can our allies in the Dutch East Indies. So also, can Allied and British shipowners, who can make sure that no ship of theirs carries rubber which might find its way to Germany. British tug-owners and ship chandlers in Hong Kong and all other British firms on the China coast who have or control shipping facilities can hit rubber by making sure that no ship carrying rubber to a dangerous destination shall be bunkered, watered, victualled, docked, repaired, serviced. British banks and insurance companies can hit rubber by making sure that no cargo of rubber to a dangerous destination and no ship carrying such a cargo shall be insured or financed. And, if all this is not enough and there is still—if there is—rubber in Indo-China and Japanese ships which can fetch it, there may still be a pressure point—at Calcutta. For Indo-China lives by exporting rice; and you can't export rice without gunny bags; and you can't get gunny bags except at Calcutta; and Calcutta is British. So maybe you are in a position to say to Indo-China, "You can sit on your rice and starve, but you will get no bags if rubber goes to Germany; be sensible and sell it to U.S.A. instead." So it may be after all, that people in London can dictate that the juice of a rubber tree on the borders of

Siam be turned into tires on a brewer's truck at Detroit or Buenos Aires, instead of on a German lorry in Libya, and that they can do this because the rice merchants of Saigon cannot do without the jute merchants of Calcutta.

Cyrenaica, the Straits of Messina, Westphalia, Warsaw, Moscow, Hong Kong, Saigon, Batavia, Singapore, Calcutta, San Francisco—it is a long way round, rather indirect shooting. But what does that matter if ultimately a place is found somewhere where force can be applied on so tender a spot, at so critical a time? And in looking for that pressure point, you cannot afford to ignore or despise any weapon."[659]

Clabaugh concluded his report:

Perhaps in no other phase of the war effort is the British pattern and experience so applicable to the plans of the United States as in the case of economic warfare. The fact of Great Britain's control of the seas and strategically located bases, and America's control of the export of raw materials, indicates an opportunity for a concerted program of economic warfare by the forces resisting aggression. That program might well follow the pattern of the British MEW. It would be facilitated and expedited by the existence of a single economic warfare agency in the US—a counterpart, insofar as it is applicable, of the British MEW. The nucleus and framework are already established in the Office of the Administrator of Export Control….[660]

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[659] "The Organization and Work of the British Ministry of Economic Warfare."

[660] Ibid.

Chapter 10 - Pre-War Economic Warfare Culminates with “the Freeze”

I. Introduction

Beginning at the end of March 1941, a series of Axis military offensives destabilized the precarious balance among the ends, ways, and means of the American grand strategy that President Roosevelt had cautiously constructed over the previous two years of war in Europe and East Asia. Axis armies attacked and conquered Yugoslavia and Greece, including the island of Crete, securing strategic minerals and control over key maritime routes. Across the Mediterranean, an Axis counterattack reversed a British offensive into Libya, threatening the Suez Canal.

At the end of March, a German armored force spearheaded a German-Italian offensive in North Africa, reversing previous British gains against the Italian Army in Libya. In April, Axis armies conquered Yugoslavia and Greece, culminating in the German seizure of Crete, which brought Southeast Europe and the Balkan littoral into the Axis war economy. Then, in June, Axis armies advanced into the Soviet Union, crushing large portions of an ill-prepared Soviet Army. In July, the future of the world pivoted on the fulcrum of the Soviet defenses.

In March, Congress passed the Lend-Lease Act, which historian Warren Kimball described as "an unequivocal declaration of economic warfare."[661] Two-thirds of Americans supported the Act, which Congress passed with votes of 260-165 in the House of Representatives

[661] Warren F. Kimball, "Franklin D. Roosevelt and World War II," *Presidential Studies Quarterly* 34, no. 1 (March 2004): 90–93.

and 59-30 in the Senate.[662] The President extended Lend-Lease to the Republic of China on May 6 and to the Soviet Union immediately after the Axis invasion. At the same time, the public's willingness to accept the costs of measures directed against the Axis was increasing, as indicated by polling, newspapers, and congressional action. At the end of June, opinion polls found Roosevelt's approval rating at 76 percent.[663] Newspaper editorials were calling for Roosevelt to take stronger measures against Japan.[664]

Throughout 1941, Roosevelt pushed the defended American maritime frontier farther east into the Atlantic to relieve the British and Canadian navies of part of the burden of escorting convoys of merchant ships carrying lend-lease supplies. In April, the US incorporated Greenland into the declared hemispheric defense zone, and then extended the zone again in July to include Iceland, which American Marines occupied on July 7.[665] In Latin America, Roosevelt was also strengthening efforts to sever the economic, psychological, and diplomatic connections between the Latin American republics and the Axis powers.

At the end of May, President Roosevelt declared an unlimited national emergency. A few weeks later, the Axis armies attacked the Soviet Union. The June 22 assault caught Soviet forces unprepared and poorly positioned. Axis spearheads rapidly penetrated deep into Soviet territory before Soviet defenses slowed the onslaught. In July, Japanese actions in the Far East threatened

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[662] David F. Schmitz, *The Sailor: Franklin D. Roosevelt and the Transformation of American Foreign Policy* (Lexington: University Press of Kentucky, 2020), 115.

[663] Ibid, 114.

[664] Waldo Heinrichs, *Threshold of War: Franklin D. Roosevelt and American Entry into World War II* (New York: Oxford University Press, 1988), 142.

[665] In September, following a failed torpedo attack by a German submarine off the coast of Greenland on the US destroyer USS Greer—which had been tracking the submarine and providing targeting information to an attacking British anti-submarine aircraft—the President would initiate a "shoot-on-sight" policy against German ships operating within the declared American patrol zone.

to tip the balance in favor of the Axis. American and British intelligence officers reported large numbers of Japanese troops moving toward Soviet borders. On July 14, American codebreakers learned from decrypted messages that Japanese leaders had decided to complete their occupation of southern French Indochina. American, British, and Dutch leaders interpreted the planned occupation as the first move in a larger advance to seize Allied possessions in Southeast Asia.[666]

On July 9, the President instructed the War and Navy Departments to prepare a report on munitions and equipment required to exceed those available to potential enemies. The Victory Plan they produced called for a massive expansion of the Army to 215 divisions and over 23,000 heavy and very heavy bombers at a time when the Army was struggling to man and equip 28 divisions and the Army Air Forces had just received its one-hundredth heavy bomber.[667]

The changing strategic situation, perhaps aided by the AEC's recent economic warfare plan, Plan Orange, elevated the strategic value of the Philippines. Heinrichs observed, "Gradually, barely perceptibly at first, the United States Army was coming to view the Philippines not as a strategic liability after all, but as an asset." As recently as October 1940, the Army War Plans Division had recommended the complete withdrawal of forces from the islands; however, by July, the Army Air Forces advocated reinforcing the Philippines with four new groups of heavy bombers. On July 30, the same day that he established the Economic Defense

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[666] Barnhart, 226-227.

[667] Alan Gropman, "Industrial Mobilization," in *The Big 'L': American Logistics in World War II*, ed. Alan Gropman (Washington, D.C.: National Defense University Press, 1997), 26. Charles E. Kirkpatrick, *An Unknown Future and a Doubtful Present: Writing the Victory Plan of 1941*, (Washington, DC: Center for Military History, United States Army, 1990), 52-53. Kreidberg and Henry, 621-623.

Board, Roosevelt directed his service chiefs, Marshall and Stark, to prepare to defend the Philippines.[668]

To address this new strategic risk, Roosevelt needed to rebalance the ends, ways, and means of American grand strategy. Strategic planners began to develop new concepts for achieving national objectives while the administration mobilized additional resources. The President also needed to reorganize or create new emergency agencies to plan, coordinate, and direct these tasks. Paradoxically, Roosevelt believed that the United States needed to accept a greater risk of war to mitigate the risk of failing to achieve national objectives essential for preserving security, freedom, and prosperity.

II. The Freeze

On July 18, with Japanese forces en route to seize southern Indochina, President Roosevelt met with his cabinet to discuss measures for implementing an embargo in response. On July 24, the Japanese fleet arrived off the coast of southern Indochina, and the French colonial government capitulated. The State Department immediately informed the press:

> By the course which it has followed and is following in regard to Indochina, the Japanese Government is giving clear indication, that it is determined to pursue an objective of expansion by force or threat of force.... This Government can, therefore, only conclude that the action of Japan is undertaken because of the estimated value to Japan of bases in that region primarily for purposes of further and more obvious movements of conquest in adjacent areas.[669]

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[668] Heinrichs, 130, 142-144.

[669] *FRUS*, 1931-1941, II Japan, Document 230 "Press Release Issued by the Department of State on July 24, 1941."

The next day, the President issued an executive order freezing all financial transactions by the government of Japan or any of its citizens or corporations. Roosevelt intended for the total freeze to prevent any exports, imports, or other financial transactions, including the transfer of funds, for at least a few weeks—probably until the end of the upcoming Atlantic Conference with Churchill—after which he might permit limited exports of petroleum, cotton, and other goods.[670] The coordinated financial freeze and expansion of export controls resulted in a nearly complete embargo on all trade with Japan, including petroleum. The British and Dutch followed the U.S. lead and enacted their near-total financial and export controls. The net result was that Japan was now almost completely cut off from the sources of raw materials essential to its economy.

III. Historiography and "the Freeze"

Historians are divided over whether the financial and export freeze was part of an intentional campaign of economic warfare conducted at the President's direction or an unintended consequence of bureaucratic competition between agencies. Herbert Feis's foundational historical account, *Road to Pearl Harbor*, was ambiguous on the subject. He recalled: "The officials called upon to prepare these orders were in a snarl. They did not know, nor could they find out, whether the President understood that if all Japanese funds were frozen, it was likely that all trade with Japan would be halted."[671]

Feis believed, "The President did not worry over the outcome of an embargo as much as some of his military aides. He seemed fairly sure that the United States would get more time, that

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[670] Heinrichs, 141-142. The Argentia Conference took place from August 9-12, 1941 aboard naval ships anchored near Argentia, Newfoundland.

[671] Feis, 229.

Japan would await the outcome of the battle against Britain and Russia before it crossed the boundary."[672]

In his 1975 article, Irvine Anderson argued that Roosevelt did not intend to cut off Japan's supply of oil completely. Anderson claimed that the President had "issued clear instructions that oil shipments should be continued because he believed termination would lead to a Japanese attack on the Indies. Implementation of the order was bogged down in a bureaucracy biased against Japan, and the freeze 'congealed into an unplanned de facto embargo.'"[673]

Anderson's work influenced other historians who built on his premise of bureaucratic competition. Jonathan Utley argued that "The freeze was designed to bring Japan to its senses, not its knees."[674] Utley singled out Assistant Secretary of State Dean Acheson as circumventing the President's directions. He wrote: "Acheson had his own ideas about what should be done with Japan, and they did not include letting it get any oil. What he produced by Monday morning was not the plan the President had ordered."[675]

Edward Miller similarly argued that midlevel officials in the U.S. government "seized the reins to drive a US policy 'designed to bring Japan to its senses, not its knees' toward a warlike confrontation."[676] While admitting that "an absence of evidence prevents an undisputed

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[672] Feis, 241-242.

[673] Irvine H. Anderson Jr., "The 1941 De Facto Embargo on Oil to Japan: A Bureaucratic Reflex," Pacific Historical Review 44, no. 2 (May 1975): 202–203. This article was based on his book *The Standard-Vacuum Oil Company and United States East Asia Policy, 1933-1941*

[674] Jonathan Utley, "Upstairs, Downstairs at Foggy Bottom: Oil Exports and Japan, 1940–41," *Prologue* 8, no. 1 (Spring 1976): 24.

[675] Utley, *Going to War with Japan*, 153-155.

[676] Miller, *Bankrupting the Enemy*, 2.

conclusion," he believed there was sufficient circumstantial evidence to implicate not only Dean Acheson and the Foreign Funds Control Committee but also Maxwell and the AEC, whom he described as “another group of opportunists.”[677]

Michael Barnhart, in his influential study *Japan Prepares for Total War,* was uncertain that Anderson's and Utley's bureaucratic politics framework provided the best explanation for U.S. policy toward Japan. After reviewing many of the same documents, Barnhart judged that it was "certainly a plausible position, though my somewhat more lenient reading is also possible."[678]

Waldo Heinrichs challenged Anderson's and Utley's interpretation of the financial freeze. Heinrichs based his rebuttal on a more comprehensive collection of documentary evidence combined with the assertion that both Welles and Acheson were loyal subordinates whom the President selected and relied on to carry out his policies. He argued, "Given the close association of Welles and Roosevelt, and the fact that Welles was currently Acting Secretary of State and the vital importance of the issue, it seems inconceivable that Welles did not secure the President's approval for this course of action."[679]

Heinrichs also pointed out that at the end of July, many of Roosevelt's advisers believed that an embargo would not trigger a Japanese push southward, and there was strong public support for an embargo. He proposed that "July was a wonderfully clarifying month for Roosevelt and his advisers," and that Roosevelt finally "knew what direction he wanted to take." He concluded that Roosevelt believed that "the risks of war would increase, but the risks of

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[677] Ibid., 109-110, 200.

[678] Barnhart, 321 46n.

[679] Heinrichs, 246 n.68.

inaction, in the global calculus, seemed greater" and that "even some risk would be worthwhile if a Japanese attack on the Soviet Union could be prevented."[680]

Historian Richard B. Frank later endorsed Heinrichs' position. Frank argued that even if Roosevelt believed the oil embargo would incite Japan to attack the Netherlands East Indies, the risk was necessary given the strategic priority of forestalling a Japanese attack on the Soviet Union. Frank concluded, "As Japanese historian Yoshitake Oka explicitly noted in his biography of Japanese Prime Minister Fumimaro Konoe, the oil cutoff quashed any realistic plan to attack the Soviet Union."[681]

My argument, which accesses additional documents, also provides strong support for Heinrichs' assessment and the role.

IV. Maxwell vs. State: Who was in Charge?

Was Maxwell operating under the President's direction or within the framework of Roosevelt's intended strategy? The first major obstacle to answering this question is that historians have inaccurately represented the relationship between Maxwell and the State Department by claiming that the AEC was subordinate to the State Department. These historians also portray the State Department, particularly Secretary Cordell Hull, as a conservative bulwark restraining Morgenthau, Stimson, Ickes, and other advocates of more provocative policies against Japan. Constrained by this framework, these historians interpret the AEC's expanding economic warfare initiatives as evidence that Maxwell was a rogue administrator competing with the State Department and other agencies.

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[680] Heinrichs, 142-145.

[681] Richard B. Frank, "Igniting the US–Japan War, 1941," in *The Road to Pearl Harbor: Great Power War in Asia and the Pacific*, ed. John H. Maurer and Erik Goldstein (Annapolis: Naval Institute Press, 2022), 230.

Several key examples of how historians have characterized this situation merit mention. Anderson wrote, "Maxwell's independent agency established guidelines and procedures, but actual export licenses were issued by the Department of State's Division of Controls, and Maxwell was instructed confidentially to defer to Hull on all questions affecting foreign policy. As long as the matter involved bona fide procurement problems, Maxwell reigned supreme, but as soon as the machinery began to be used for economic warfare, the State Department held a double administrative veto." He continued: "Most critical in the fall of 1940, however, was the administrative check that State held on the actual machinery of export control."[682]

Utley described Maxwell as challenging Hull's control of foreign policy, labeling it a "bureaucratic coup." Maxwell's office was a purely administrative post intended to handle the licensing of exports. But Maxwell expanded his empire…."[683] Miller claimed, "To confirm specific actions, Maxwell's team had to consult Green's tiny staff in the State Department, but Green was instructed to issue or deny licenses 'in accordance with' ECA directives. Although the State Department legally retained the final say on specific licenses, in reality, its role was reduced to assessing the impact of export controls on foreign relations."[684] Barnhart concurred: "Maxwell could call for restrictions on a given commodity because of defense needs, but Green could refuse to implement them if important issues of foreign policy were involved."[685]

The problem with this superficial consensus is that all these historians were merely repeating an earlier interpretation of a single statement by one source, and there are several

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[682] Irvine H. Anderson Jr., *The Standard-Vacuum Oil Company and United States East Asian Policy, 1933–1941* (Princeton: Princeton University Press, 1975), 129–130, 143.

[683] Utley, *Going to War with Japan*, 124.

[684] Miller, *Bankrupting the Enemy*, 87.

[685] Barnhart, 184.

reasons to doubt this representation.[686] The source is the noted historian of U.S. foreign relations, Herbert Feis. In his foundational interpretation of pre-war policy towards Japan, *The Road to Pearl Harbor*, published in 1950, Feis describes the creation of the Office of the Administrator of Export Control in June 1940:

> The President, after allowing the sullen contest to drag on, settled it in accord with the ideas of Harry Hopkins. He appointed a single administrator of export control, directly under the White House. But this official gave a confidential promise not to make any decisions affecting foreign policy, except on the advice of the Department of State. Colonel Russell L. Maxwell, an Army officer, was made administrator. He assumed the

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[686] Anderson, Utley, Miller, and Barnhart did cite additional references on this topic in addition to Feis, but none of these sources actually corroborate Feis' claim about State's relationship with Maxwell and Export Control. Anderson cited *Documents on American Foreign Relations Volume III*, which simply reprinted Presidential proclamations and executive orders related to export control with only a brief introduction explaining their significance, and Roberta Johns's *An Historical Record of Export Control* with no page numbers listed. Utley cites Anderson and three memorandums: one by Green of DIVCON in January 1941, one by Yost of DIVCON in December 1940, and one by Henderson of NDAC in November 1940. Miller cites the official history of the War Production Board *Industrial Mobilization for War* pp. 71-73, and an unpublished *Administrative History of the Foreign Economic Administration: Pre-Pearl Harbor Organization* with no page numbers referenced. Barnhart cites Anderson and the transcript of a meeting between Morgenthau and Major Bedell Smith of the War Department collected in Morgenthau's Diary 276 pages 59-62. A note likely written by a stenographer the topic of the meeting states, "Subject under discussion when Miss Chauncy arrived was a proclamation of the President creating an embargo on a long list of materials useful in National defense and providing for the appointment of Colonel Maxwell as Administrator to recommend to the State Department what licenses for export of these materials should be granted and what should be refused." This appears to support Feis, but the remainder of the transcript contradicts a supportive interpretation of that heading and makes it clear that Hull was not in charge of Maxwell or Export Control. Other than the three memos cited by Utley, I have thoroughly reviewed all of the other documents cited—I have also used them as sources cited elsewhere in this dissertation—and none of them support Feis' claim. In fact, as evidence, they support the view of Maxwell's independence under the President's direct supervision. Given the detailed description of the State Department's role in the export control process provided by Green and Yost in July 1941 and cited in this section, it is unlikely that the three memos cited by Utley contradict my conclusions.

responsibility before the public, while the actual control of the policy and the actual issuance of licenses remained in the hands of the State Department.

Unsurprisingly, State Department documents in FRUS appear to corroborate Feis's assertion. However, the curated collection omits much of the context behind these documents and the numerous records in other archival collections that contradict Feis's narrative. FRUS does not capture the instances when Maxwell did not act on State's advice or the many examples in which the policies or actions discussed were already being considered by Maxwell, sometimes in cooperation with other government agencies, before their appearance in State Department deliberations. According to Maxwell, recommendations for controls often came from outside organizations. "In fact, some of the most severe controls we have in effect were recommended by those [business] organizations after we had talked to them confidentially and told them the purpose of our system."[687]

The "confidential promise" Feis alleges that Maxwell made was most likely the "treaty" he signed with the State Department in June 1940—one of eventually twenty-five "treaties" Maxwell entered into with various executive departments and agencies related to his economic warfare initiatives. Maxwell later described this treaty, stating, "I had a written agreement with the Secretary of State outlining our mutual interests and separate responsibilities, and he provided certain people in the Department for me to contact."[688] In the treaty, Maxwell agreed to "consult officials of the several interested Departments of the Government before deciding any major question of policy or administration. He will call upon the Department of State for advice." Additionally, he agreed that "The Administrator, recognizing the paramount

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[687] "Conference with Major General R.L. Maxwell, Formerly Administrator of Export Control."

[688] Ibid. See discussion in Chapter 3.

responsibility of the Secretary of State in the conduct of foreign relations, will accord full consideration to the views of the Department of State on matters relating to foreign policy." However, Hull also stipulated that "All questions of interpretation of the regulations will be submitted by the Division of Controls to the Administrator for decision…."[689]

According to the Division of Controls' own records, the State Department had several opportunities, through the export control process, to make recommendations to Maxwell, although the AEC had the final say. Maxwell would later describe the situation: "We made it possible by that [first] proclamation to say 'no' after everybody else had said 'yes.'"[690]

The staff of the Division of Controls explained its role and its collaboration with the AEC in a report prepared in July 1941 on the Division's history and current operations. When an exporter submitted an application for a license to export a commodity, machine, or piece of equipment to the Division of Controls, the license was sent to one of four licensing sections based on the type of commodity or machinery involved. After screening for errors, the sections would either approve, disapprove, or forward the application to the AEC according to directives from the Administrator of Export Control. Maxwell explained, "When Mr. Green receives applications, he can immediately separate them into three categories—those he can say 'yes' on, those on which he says 'no', and those on which he has to ask for an individual decision." According to the Division of Controls, about one-third of the applications were forwarded to the AEC for a decision, although Maxwell estimated that the actual number was closer to one-half.

[689] "Memorandum: Interrelated Duties of the Department of State and the Administrator of Export Control."

[690] "Conference with Major General R.L. Maxwell, Formerly Administrator of Export Control."

[691] In making its final decisions, the AEC did not explain the reasons for rejecting applications, stating only that they were rejected "in the interest of national defense."[692]

The Division of Controls' account aligns with contemporary statements. In a June 1941 congressional hearing, Maxwell testified, "The final decision as to recommendation to the President as to what shall be done is mine."[693] Later in the war, Maxwell clarified that he worked directly for the President, not the State Department, stating, "We took our orders directly from the President. And when there were orders issued pertaining to policy, the President issued them."[694]Maxwell's assertion is supported by the Bureau of Budget. In a report examining the development of the administration's "economic defense" organizations in 1940 and 1941, the Bureau noted the July 1940 establishment of the AEC, describing it as "a victory for the military" and highlighting that "Maxwell was accordingly installed with full vetoing powers."[695]

Secretary of State Cordell Hull made a significant point in July 1940 when the new Secretary of the Navy, Frank Knox, requested Hull's intervention to block the export of machine tools purchased by the Soviet Union. Hull responded to Knox, stating, "As the Proclamation and the regulations promulgated by the President on July 2, pursuant to the Export Control Act, vest in the Administrator of Export Control the authority to decide whether or not export licenses shall be issued in any given case, I have referred your letter to the Administrator and have

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[691] Ibid.

[692] "Duties and Functions of the Division of Controls in the Department of State."

[693] "Report of Proceedings: Hearing held before Military Defense Investigating Committee, Special Committee No. 3."

[694] "Conference with Major General R.L. Maxwell, Formerly Administrator of Export Control."

[695] "Chronological History of the Economic Defense Board," 17.

requested him to communicate directly with you in regard to this matter."[696] Notably, in a subsequent letter to Knox concerning the Soviet machine tools, Maxwell informed the Navy Secretary that he was blocking their export, even though it was "a source of considerable embarrassment" to the State Department.[697]

The most compelling evidence contradicting Feis' claim is the record of Maxwell's actions that were unequivocally at odds with State's desires. Some previously detailed examples in this dissertation include the inclusion of scrap steel in Maxwell's draft of the July 1940 order embargoing aviation gasoline and related materials; Maxwell's refusal to grant export licenses for Soviet and Japanese machine tools, despite their inapplicability to American industry; the Project Section's preparation of an Economic Warfare Plan Orange; and Maxwell's bypassing of the State Department to establish liaison and early coordination with the British Ministry of Economic Warfare.

This is not to suggest that Maxwell and the AEC were entirely dismissive of the State Department in their decision-making. In April 1941, an official from the Tariff Commission expressed to the Bureau of Budget that Maxwell was overly deferential to the views of the State Department—a claim that could also apply to the ANMB, NDAC, or OPM.[698] However, State Department leaders in the Division of Controls simultaneously complained to the Budget that the AEC was encroaching on their licensing prerogatives, noting that "there had been a reversal of

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[696] Letter from Secretary of the Navy Frank Knox wo the Secretary of State, dated July 19, 1940, and Letter from R. Walton Moore for the Acting Secretary of State to the Frank Knox, Secretary of the Navy, dated July 26, 1940, Box 6, Folder E, Entry 146 Office of Administrator, Records Analysis Division, Historical Monographs Prepared Outside Division, RG169, NACP.

[697] Letter from Russell L. Maxwell, Administrator, to the Secretary of the Navy, dated July 31, 1940, Ibid.

[698] "Chronological History of the Economic Defense Board," 21. Cited from a "conference with Tariff Commission officials" and the Bureau of Budged on April 21, 1941.

roles: AEC was determining policy, and the State Department was administering!" Despite this tension, Joseph Green, Chief of the Division of Controls, "had nothing but praise for the General [Maxwell] himself, and stated that relations were, on the whole, amicable."[699]

V. Was Maxwell acting under Roosevelt's Direction?

While a substantial portion of the archival records of the Administration of Export Control remains unexplored, there does not appear to be any record of direct correspondence or meetings between Maxwell and Roosevelt. Maxwell transmitted draft proclamations and clarifying instructions for the President to sign to the President's secretary, General "Pa" Watson. In a May 1941 lecture to the officers attending the Army Industrial College, Maxwell stated that he had received little direction from the White House.[700] However, his incremental implementation of economic warfare measures seems to align with the President's own gradual approach, which was based on the growing acceptability of his grand strategy.

Following the July 1940 controversy over the scope of controls on steel scrap and aviation gasoline, there is no evidence that Maxwell was ever constrained or overruled by the White House. This suggests that Maxwell was likely operating within the parameters of Roosevelt's strategic intentions. However, is there any evidence of the President's direct support for Maxwell's expanding economic warfare operations?

The evidence is circumstantial but persuasive that Maxwell was acting in accordance with the President's strategy and with his support. The first type of evidence is Maxwell's position within the network of new officials recruited, directed, and supervised by the President's

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[699] "Chronological History of the Economic Defense Board," 22, 27. Based on interviews conducted by the Bureau of Budget with State Department Officials on April 17 and May 29, 1941.

[700] "Export Control by Brigadier General R.L. Maxwell, USA, Administrator of Export Control."

closest adviser and coordinator of most aspects of his grand strategy, Harry Hopkins. The establishment of the AEC was Hopkins's solution to a compromise. When Maxwell reported to the White House to be briefed on his new assignment as Administrator, it was Hopkins and one of his own new lieutenants, Edward Stettinius, Jr., who provided him with his instructions. Maxwell was likely selected for the position by Hopkins or Stettinius due to their shared connection with the 1939 War Resources Board.[701]

After Roosevelt's reelection in November 1940, Stettinius was primarily responsible for producing the November 27, 1940, NDAC memo and for meeting with the President to encourage the development of a more robust economic warfare organization. Before the NDAC memo was completed, Stettinius had already seconded his friend Thomas Hewes, who Hopkins had personally recruited the previous July to work as a dollar-a-year man in the NDAC, to the AEC, specifically to study and assist in economic warfare planning. Hewes even attended course sessions at the Army Industrial College. In December, he officially joined the AEC as the head of the newly formed economic warfare planning section, which was camouflaged under the name "Projects Section."[702] Another indication of their continued connections emerged in March 1941, when Averell Harriman, another of Stettinius' subordinates who had followed him from NDAC to his new position overseeing Lend-Lease, and one of Hopkins' "tame millionaires," dispatched a note from London notifying Maxwell that Noel Hall was traveling to Washington as a new

[701] It is unclear if Hopkins knew Maxwell prior to his assignment as Administrator, but Hopkins was very familiar with the IMP. If Hopkins did not know Maxwell then Stettinius likely recommended Maxwell for the position. Stettinius would have worked with Maxwell when Stettinius was serving as the Chair of the War Production Board in the fall of 1940 while Maxwell was serving as one of the senior Army officers assigned to the Army and Navy Munitions Board which worked with the WPB and was responsible for the IMP.

[702] "Conference with Colonel Thomas Hewes at His Law Office."

representative of the Ministry of Economic Warfare. The addressees on the note were all associates of Stettinius and Hopkins.[703]

Two years after leaving the AEC, Maxwell told historian William Tayler, who was preparing an official history of American economic warfare efforts that was later discontinued, "As I look back over two years of perspective, I can think of several people in Washington who were extremely helpful to me and understood what we were doing. They were the President, Harry Hopkins, Mr. Stettinius [NDAC and Lend Lease], Wayne C. Taylor [Under Secretary of Commerce], Nelson Rockefeller [CIAA], Abe Haran (who was with Stettinius), and Henry Grady [Assistant Secretary of State, replaced by Dean Acheson in February 1941]. They had the vision to see what was ahead."[704]

The second category of evidence involves the activities surrounding the development of plans for what would eventually become the Economic Defense Board/Board of Economic Warfare between November 1940 and July 1941. After meeting with the NDAC at the end of November, the President directed the Bureau of Budget to study and prepare plans for an expanded economic warfare organization. Several agencies submitted proposals, including those from Maxwell, the Treasury, the CIAA, and a combined plan from the State, Treasury, and Justice Departments.

In a series of conferences with Clabaugh and the leaders of the AEC's planning division, Budget officials recorded, "The Control Officials indicated quite frankly that they had given considerable time and attention to planning for economic defense and warfare."[705] It is unclear

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[703] "Personal for Wayne Taylor, General Russell L. Maxwell, Alexander Henderson, W.L Clayton from Harriman."

[704] "Conference with Major General R.L. Maxwell, Formerly Administrator of Export Control."

[705] "Chronological History of the Economic Defense Board," 18.

what the President knew up to that point, but on February 14, Budget Director Harold Smith met with him and urged against "vesting such [economic warfare] responsibility in the Export Control Office."[706]

Despite Smith's objections, Roosevelt chose to empower Maxwell and the AEC further. On March 15, Roosevelt issued an executive order granting Maxwell the authority to add or delete articles from the list of controlled materials and equipment on the President's behalf, without first seeking White House approval.[707] This order signified Roosevelt's trust in Maxwell and indicated that Maxwell was operating in alignment with the President's economic warfare strategy. Budget officials complained that although their plans were "designed to put an abrupt quietus to General Maxwell's pursuit of the economic defense field," Maxwell continued "in spite of it all, to expand his activities."[708]

Before the President's order, Maxwell had begun circulating a proposal for an Economic Warfare Council and an Economic Warfare Administration, based on the War Trade Administration proposed in the War Trade Annex. A Budget document dated March 15 notes that Harry Hopkins had been discussing the proposed order.[709] By the end of April, Maxwell had garnered broad support from the State Department, Commerce, and the Office of Production Management.[710] Budget officials expressed concerns that Maxwell had an "in" with the Administration, noting that he claimed to have "excellent connections at the White House" and

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[706] Ibid., 19.

[707] Executive Order No. 8712, dated March 15, 1941. "Export Control by Brigadier General R.L. Maxwell, USA, Administrator of Export Control."

[708] "Chronological History of the Economic Defense Board," 32.

[709] Ibid., 21.

[710] Ibid., 23-24.

that Hopkins was one of his backers.[711] Maxwell apparently believed the President would soon approve his plan. In a note to his staff dated May 13, 1941, Maxwell wrote, "If anything breaks while I am away along the lines of an 'Economic Warfare Council,' this is a subject that I believe can be presented at one of the early meetings of the Council."[712]

In May, Smith met with the President again to encourage him to curtail Maxwell's economic warfare activities. The AEC had been funded through military appropriations, but Smith recommended that the President move the AEC under the White House Office of Emergency Management for administrative and budget purposes. Roosevelt agreed to the move; however, instead of cutting Maxwell's budget, he more than doubled it to $1 million and authorized Maxwell to recruit over 125 additional personnel for his organization.[713]

At the beginning of June, the Budget Office noted that the President was continuing to discuss plans for the prospective economic warfare agency with Hopkins. On June 5, the Budget Office released a new draft order based on the President's directives for a new Office of Economic Defense, supported by a large board composed of key cabinet secretaries, military leaders, and agency heads. The President was still considering who would lead the new organization—options included Vice President Wallace, State Department Assistant Secretaries Dean Acheson and Adolf Berle, or Under Secretary of the Navy James Forrestal—but the draft

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[711] Ibid., 22, cited from a meeting with Maxwell on April 16, 1941.

[712] "Transfer slip April 16, 1941, to General Counsel, Major A.N. Ziegler," dated April 16, 1941, Box 995, Folder G-4, Entry 171 History of Export Control Exhibits, RG169, NACP.

[713]"Office for Emergency Management Office of the Administrator of Export Control. Budget Estimates, Salaries and Expenses Fiscal Year 1942." Maxwell's budget increased from $424,620 to $1,000,000 with an additional 132 military officers paid for by the War and Navy Departments. The AEC had 426 personnel in May 1941. Maxwell's new budget authorized 578 personnel, plus funds for additional consultants. This does not count the more than 70 personnel in the Division of Controls or the members of the Commodity Committees on loan from other agencies. The move to the OEM was effective as of July 1, 1941.

included orders assigning Maxwell and his deputy, LTC Chickering, as the new agency's executive director and deputy executive director, respectively. The President also directed Smith to discuss the proposed order with Bernard Baruch.[714]

In early July, the Budget office again complained that "nothing seemed to be able to stop General Maxwell." Maxwell submitted a follow-up draft order to the President, proposing the establishment of the Economic Warfare Council and Administration, now referred to as the Office of Foreign Trade Control, with Vice President Wallace at its head and Maxwell serving as its executive officer.[715] Several aspects of this order appear to have been incorporated into the President's order establishing the new Economic Defense Board on July 30.[716] When the President decided to respond to Japan's seizure of southern Indochina on July 24, he designated Maxwell to be responsible for export control measures, including new restrictions on petroleum exports that were central to the President's strategy.

VI. Control of Foreign Funds in the United States

The President's decision to extend financial controls to Japan was the culmination of an incrementally implemented and increasingly effective economic warfare program that had been underway since July 1940.[717] The focus on the executive order licensing financial transactions

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[714] Chronological History of the Economic Defense Board," 32-33.

[715] Ibid.

[716] For example, the President decided that he wanted Wallace to had the Economic Defense Board, but it was not clear that the President could legally appoint the vice president to head an executive agency. In his July draft order, Maxwell recommended a procedure for asking the vice president to oversee a Board with powers as a chairman that the President followed in asking Wallace to head the EDB. The EDB also closely followed the function and authority of the proposed Economic Warfare Council/ Economic Warfare Administration/ Office of Foreign Trade Control.

[717] One could argue December 1939 "Moral Embargo" or 1940 cessation of the Commercial Treaty

has distracted historians from giving adequate attention to the more important policy underlying the financial "freeze."

The President's economic warfare policy had three components, of which foreign funds control played only a relatively small part. First, the Administrator of Export Control was to extend export controls to embargo "any substantial trade except cotton and petroleum products" with Japan. The AEC would ration exports of cotton and petroleum under restrictive quotas. Second, the Foreign Funds Control Committee would halt American imports of Japanese silk by refusing to license payment. Third, the FFCC would "freeze" Japanese funds and financial assets, including specie, to prevent Japan from using them or withdrawing them directly back to Japan or to a neutral country.[718]

The United States government first used the control of foreign funds as a method of economic warfare in World War I. One of the "four great purposes" of the War Trade Board was the "Financial isolation of the enemy by control of enemy stocks in the United States and of enemy credit established through trading with United States citizens."[719]

On October 6, 1917, Congress passed the Trading with the Enemy Act, which empowered the President to "Regulate or prohibit transactions in foreign exchange, export of specie, or transfers of credit between the United States and any foreign country." The War Trade Board reported, "The credits that were established as a result of ordinary commercial operations of enemy firms could easily flow to enemy countries through neutral channels, there to be used as the basis of war loans; or they could be used in neutral countries for the purpose of

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[718] *FRUS*, 1941, IV The Far East, Document 670 “The Under Secretary of State (Welles) to President Roosevelt dated July 31, 1941.”

[719] War Trade Board, 13.

propaganda or to purchase supplies to keep them from the Allies."[720] The War Trade Board's Bureau of Enemy Trade worked with the Treasury to target financial controls on enemy assets as part of the Board's broader economic warfare campaign.[721]

In March, Ralph Turner's group in the project section initiated several studies of different aspects of financial economic warfare based on the experience of the War Trade Board in World War I. These studies included plans for extending control over foreign funds and property controls, war loans, insurance, and imports. The plan for the War Trade Administration proposed in the War Trade Annex to the 1939 Industrial Mobilization Plan included a War Trade Section based on the War Trade Board's Bureau of War Trade, as did the AEC's more recent iteration of that plan for the Economic Warfare Administration.[722]

After the German military seized Denmark and Norway in early April 1940, the President revived the Trading with the Enemy Act and directed Treasury Secretary Henry Morgenthau, Jr., to freeze Danish and Norwegian financial assets and property in the United States to prevent the

[720] Ibid.

[721] Ibid., 345.

[722] FRUS, 1941, IV The Far East, Document 690 "The Financial Counselor of the British Embassy (Stopford) to the Assistant Secretary of State (Acheson) dated August 30, 1941." This section would begin collaboration with the American Foreign Funds Control Committee in identifying and controlling enemy transactions in August.

Germans from taking and using them.[723] Between April 1940 and June 1941, the President subjected a total of 31 European countries to financial controls.[724]

Before June 1941, the primary purpose of the financial controls was to protect foreign assets from Nazi confiscation. However, on June 14, Roosevelt targeted financial controls against Germany itself.[725] When the President added Japan to the list of controlled countries on July 25, he told the press, "This Executive Order, just as the Order of June 14, 1941, is designed, among other things, to prevent the use of the financial facilities of the United States and trade between Japan and the United States, in ways harmful to national defense and American interests, to prevent the liquidation in the United States of assets obtained by duress or conquest, and to curb subversive activities in the United States."[726] The Assistant Director of Foreign Funds Control later wrote that with the addition of Germany and Japan, "the emphasis upon protection gave way to more positive participation in aggressive economic warfare...."[727]

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[723] *Plunder and Restitution: Findings and Recommendations of the Presidential Advisory Commission on Holocaust Assets in the United States and Staff Report* (Washington, D.C.: U.S. Government Printing Office, 2000), 45-46. Executive Order 8389 Amendment of Executive Order No. 6560 Dated January 15, 1934, Regulating Transactions in Fore Exchange, Transfers of Credit, and the Export of Coin and Currency, dated April 10, 1940. Denmark had $48.1 million and Norway had $154.7 million of assets and property in the US.

[724] April 8, 1940 —Norway and Denmark; May 10, 1940 —The Netherlands, Belgium, and Luxembourg; June 17, 1940 —France (including Monaco); July 10, 1940 —Latvia, Estonia, and Lithuania; October 9, 1940 -Rumania; March 4, 1941 —Bulgaria; March 13, 1941 —Hungary; March 24, 1941 —Yugoslavia; April 28, 1941 —Greece; and June 14, 1941 —Albania, Andorra, Austria, Czechoslovakia, Danzig, Finland, Germany, Italy, Liechtenstein, Poland, Portugal, San Marino, Spain, Sweden, Switzerland, and Union of Soviet Socialist Republics.

[725] Executive Order 878 Regulating Transactions in Foreign Exchange and Foreign-Owned Property, Providing For the Reporting of All Foreign-Owned Property, and Related Matters, dated June 14, 1941.

[726] *FRUS*, 1931-1941, II Japan, Document 184 “Press Release Issued at Poughkeepsie, New York, by the White House on July 25, 1941.”

[727] Ward Stewart, "Freezing Axis Funds," *Public Administration Review* 2, no. 4 (Autumn 1942): 282.

The financial controls were enforced by the Treasury's Foreign Funds Control Section, assisted by the Federal Reserve, the Securities and Exchange Commission, the Department of Justice Anti-Trust Division, and other government agencies. As Ward Stewart described them in 1942, the section's objectives in using its freezing authority were:

> 1. To cut off all financial and commercial transactions with the Axis powers and nations dominated by them;
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> 2. To cut off all financial and commercial transactions with other nations outside the Western Hemisphere when such transactions would be of benefit to the Axis powers;
>
> 3. To cut off financial and commercial transactions among the American republics when such transactions would be of benefit to the Axis powers;
>
> 4. To regulate the international movement of securities and currencies in order that such movement shall not benefit the Axis powers;
>
> 5. To eliminate all financial and commercial activity within the United States which is deemed inimical to the defense of the Western Hemisphere.[728]

By the end of July 1941, they had blocked approximately $7 billion of foreign funds vulnerable to seizure and exploitation by the Axis governments. This represented over half of the total of $12.7 billion in all foreign-owned assets in the United States. Japan had only $161 million in frozen assets, far less than Germany's $198 million or occupied Western Europe's $2.5 billion.[729]

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[728] Ibid., 283.

[729] "Plan for Enemy Property Control," dated April 1, 1941, Box 698, Folder Plan for Enemy Property Control, Entry 88 Chief of Projects Section, RG169, NACP. Miller, *Bankrupting the Enemy*, 195. *Plunder and Restitution*, 45–46. In comparison, during World War I, the Treasury Department, working in conjunction with the Bureau of

VII. Import Control

During World War I, the War Trade Board controlled imports into the United States through a licensing system administered by its Bureau of Imports. The Board used import controls to facilitate the prioritization of imports of strategic materials, to conserve shipping, and to obtain foreign currency or gold through trade. As with financial controls, the proposed plans for the War Trade Administration and the Economic Warfare Administration included Divisions for Import Controls.

In support of these plans, the Projects Section had been studying import control and developing plans for its implementation: "To exert such economic pressure as desired against the worldwide financial and commercial organizations of the Axis Powers, by refusing import licenses to Axis interests. This will eliminate the use of the goods as security for obtaining credits; the enrichment of the owners, who, being Axis sympathizers, are doing all in their power to aid the Axis financially; the accumulating of material for post-war trade; and the holding of the goods from use by the United States in its defense program."[730]

In the last war, the World Trade Board had assumed "that the gradual destruction of long-established organizations providing channels for German trade abroad was a most effective belligerent measure.... The loss of those connections would tend to create a powerful sentiment for peace among the commercial classes of Germany."[731] Economic warfare planners in 1941

Enemy Trade of the War Trade Board, took control of over $500 million in German assets with another $200 million under investigation for potential seizure when the war ended.

[730] "Suggestions for Import Control Including a Review of the War Trade Board," dated April 4, 1941. Box 698, Folder Suggestions for Import Control, Entry 88 Chief of Projects Section, RG169, NACP.

[731] "Plan for Enemy Property Control."

believed that halting Japanese imports could have the same effect by making the cost to the Japanese of war with the United States unacceptable.

The President's decision to specifically target silk imports was derived from the simple fact that silk was the only remaining substantial import from Japan.[732] Prohibiting the import of silk would seriously affect Japan's supply of dollars to pay for its imports from the United States and threaten the livelihood of a large portion of the Japanese population. Silk exports generated twelve percent of Japan's foreign exchange and were a significant source of US dollars. The American textile industry absorbed eighty-four percent of these exports. In 1939, the United States imported $113.3 million of raw silk from Japan. Eighteen million Japanese people derived a part or all of their income from the silk industry. Analysts on the AEC commodity committee believed that the Japanese government would simply not have the financial resources to compensate for the income lost by Japanese households should the US halt its silk imports.[733]

Silk had been included in the original export control order on July 5, 1940. The military needed raw silk primarily to make parachutes and for gunpowder cartridge bags for naval artillery. A few days after Roosevelt's July 18 cabinet meeting, the Chief of Naval Operations informed the President that they could get by with existing stock and reclaimed silk stockings, clearing the way for the import control.[734]

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[732] *FRUS*, 1941, IV The Far East, Document 670 "The Under Secretary of State (Welles) to President Roosevelt," Document 661 "The Chief of Naval Operations (Stark) to President Roosevelt." All other American imports from Japan in 1940 amounted to only $15 million—the largest other categories being crabmeat and tea valued at $3 million each.

[733] "Report No. CC11-1, Subject: The Economic Vulnerability of Japan in Silk and Silk Wastes."

[734] Hugh Rockoff, *Getting in the Scrap: The Salvage Drives of World War II*, Working Paper No. 2000-02 (New Brunswick, NJ: Rutgers University, Department of Economics, 2000), 4. *FRUS*, 1941, IV The Far East, Document 661 "The Chief of Naval Operations (Stark) to President Roosevelt." At that time, satisfactory powder bags made

VIII. Export Controls Expanded

The new financial controls themselves were unnecessary for embargoing exports to Japan—that work was already being done by Maxwell and his AEC. By July 1941, there was not much left that Maxwell had not already embargoed. In a memo outlining the President's policy, Under Secretary of State Sumner Welles noted, "Many categories of exports are already forbidden by the export control regulations."[735] Over the previous year, the AEC had issued eighteen proclamations restricting the export of some 170 different raw materials, commodities, or machinery incorporating thousands of different forms and derivatives affecting every sector of Japan's economy. Welles observed, "In none of the items in the list is there any large export at present."[736]

On August 9, the Projects Section completed a report titled "The Economic Power of Japan to Wage War," which updated some of the conclusions of the May "Coordinated Plan." The report reached two basic conclusions. The first was that Japan had been able to stockpile enough war material to wage war for up to eighteen months without any further imports. The second conclusion was that prior to the implementation of export control, Japan had been able to import sufficient quantities of strategic materials to maintain those stockpiles, but by July 1, 1941—before the financial freeze—Japan was eating into the stockpiles.[737] Every month going

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from substitute materials had not yet been developed, so the Navy was assuming some risk in supporting the import control. Later in the war, the Navy was able to develop a satisfactory powder bag from a special blend of cotton, wool, and rayon.

[735] *FRUS*, 1941, IV The Far East, Document 670 "The Under Secretary of State (Welles) to President Roosevelt." Maxwell had allowed limited exports of some materials to go to Japan.

[736] "Establishment of the Control of Exports and the Delegation of Authority to an Administrator of Export Control," undated, Box 995, Folder H, Entry 171 History of Export Control Exhibits, RG169, NACP.

[737] "Notes on the informal conference held Thursday, 8 March 1945, in Dr. Tayler's office."

forward would reduce Japan's war-making potential. The "Coordinated Plan" articulated a theory of victory based on running out the clock on Japan's war economy.

COTTON

The President would permit continued, albeit restricted, exports of American cotton to Japan. Exports of raw cotton to Japan would be limited to $600,000 per month compared to $4 million per month in 1938. Cotton textiles made up the largest segment of the Japanese export trade. The inability to import cotton would have serious ramifications on Japan's international balance of payments and its civilian economy. Despite this, cotton was not a strong point of leverage against Japan, and the decision may have been a concession for American cotton producers. Japan did have several months of stocks on hand and could source half of its requirements from occupied China.[738]

OIL

At the July 18 cabinet meeting, Roosevelt agreed that Maxwell would impose new controls on petroleum exports that would drastically reduce or even completely halt future petroleum exports to Japan. Many historians have incorrectly attributed the subsequent oil embargo to the decisions of the Foreign Funds Control Committee; however, the policy was determined by Roosevelt and assigned to Maxwell for implementation. No aspect of the new policy required control of foreign funds or additional authority that the President had not already delegated to Maxwell. The FFCC was directed to align their financial controls with Maxwell's export control directives on petroleum. The plan for restricting exports consisted of three components:

[738] "Report No. CC11-4, Subject: The Economic Vulnerability of Japan in Raw Cotton."

1) The technical definition of aviation gasoline under export control would be reduced from 87 octane to 67 octane,

2) Exports of all types of gasoline, lubricating oil, and crude oil to Japan would be limited to the "normal" pre-war quantities exported in 1935 and 1936, and

3) All existing Japanese licenses would be revoked, requiring Japan to apply for new licenses under the new octane standards and quota limitations.[739]

Combined with a series of early restrictions, these new instructions would have effectively prevented the export of significant quantities of gasoline or crude oil even without a freeze on financial transactions.

Throughout 1941, the Roosevelt Administration took several steps to reduce the amount and quality of petroleum products Japan could purchase and transport from the United States. In February, Maxwell restricted exports of equipment for oil wells and refineries to Japan. Since August 1940, the AEC had rejected several Japanese and Soviet export licenses for such equipment on the grounds that it might be used to produce aviation gasoline.

At the same time, Maxwell restricted the export of steel drums, which would "while not creating unnecessary friction by preventing Japan from purchasing oil in the United States, retard and render much more difficult the carriage to Japan of petroleum products as 'package goods.'"[740] In 1939, Japan transported most of the gasoline it imported from the United States in

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[739] Barnhart, 228. *FRUS*, 1941, IV The Far East, Document 670 The Under Secretary of State (Welles) to President Roosevelt."

[740] *FRUS*, 1941, IV The Far East, Document 603 "Memorandum by the Chief of the Division of Far Eastern Affairs (Hamilton) to the Adviser on Political Relations (Hornbeck)." *FRUS*, 1931-1941, II Japan, Document 166 "Executive Order No. 8669, Signed by President Roosevelt, February 4, 1941," includes instructions on iron and steel export includes Metal drums and containers, filled or unfilled

steel drums loaded onto dry freighters.[741] After Roosevelt implemented export control restrictions on high-test aviation gasoline in July 1940, Japan's ability to import mid-grade gasoline was limited by the number of available tankers.[742]

In the first week of March, Maxwell directed the Division of Controls to hold all future Japanese gasoline and oil export license applications.[743] After April 8, no licenses for oil exports to occupied China or Thailand were considered, as these exports could easily be re-exported to Japan. By the end of June, the AEC was sitting on 69 export applications for $12 million worth of petroleum products, including 3.6 million barrels of gasoline, 123,000 barrels of lubricants, and 1.4 million barrels of crude oil.[744] All of these licenses would be revoked a month later.

At the end of March, the Secretary of State asked the Chairman of the US Maritime Commission, Admiral Emory Land, to quietly withdraw all tankers owned by US shipping companies from the Pacific. Within a few months, only Japanese tankers were left to carry Japanese petroleum imports.[745] On June 20, President Roosevelt directed Maxwell to deny all oil exports to Japan from the East Coast ports. Roosevelt and Ickes justified their actions on the grounds that a gasoline shortage might develop after the administration diverted American

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[741] "Report No. CC6-1, Subject: The Economic Vulnerability of Japan in Petroleum," dated April 1940, Box 964, Folder Report No. CC6-1 Petroleum, Entry 158 Economic Warfare Studies of the Army Industrial College, RG169, NACP.

[742] Anderson, 143-144. 159-160.

[743] Anderson, 165. Miller, *Bankrupting the Enemy,* 160.

[744] "Department of State Division of Controls Memorandum to The Administrator of Export Control," dated June 21, 1941, 1940, Box 271, Folder Japan, Entry 98 Office of Administrator of Export Control July 1940-May 1942, Central File (Area), RG169, NACP. Miller, *Bankrupting the Enemy,* 160.

[745] Anderson, 162-163.

tankers to support lend-lease shipments to Great Britain. Japan would still be able to ship petroleum products from the Gulf Coast and Pacific Coast ports.[746]

However, only three weeks later, the President restricted Japanese use of the Panama Canal. On July 10, Sumner Welles notified the Japanese Ambassador that, beginning the next day, the Panama Canal would undergo an indefinite period of repairs, during which it would be off-limits to Japanese ships. The closure effectively blocked access to American Gulf Coast refineries and ports, as well as alternative oil sources in Venezuela and Mexico, because the travel time around South America was prohibitive.[747]

By the time Roosevelt announced the extension of financial controls to Japan on July 25, Japan could only import petroleum products from California's oil fields, refineries, and ports.[748] The change in the definition of aviation gasoline from an 87-octane rating to a 67-octane rating became a critical determinant of the impending oil embargo. Due to the composition of California crude oil, gasoline refined from it using commercial methods available in 1941 could achieve a 73-octane rating without additives. This meant that even under the 87-octane standard, California crude oil from several fields could not be exported to Japan. By limiting the octane rating of gasoline that could be distilled from it, most, if not all, of California's crudes would

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[746] Miller, *Bankrupting the Enemy,* 184-188. US shipping companies believed they could make up for the lost tankers through more efficient operations. Miller describes the event as "the fictitious US oil shortage."

[747] FRUS, 1941, IV The Far East, Document 207 "Memorandum of Conversation, by the Acting Secretary of State [Washington,] July 10, 1941." Miller, *Bankrupting the Enemy,* 162.

[748] California's oil industry was essentially isolated from the fields and refineries in the rest of the country due to the prohibitive cost of shipping petroleum products by rail over such long distances. For an analysis of this, see Miller, *Bankrupting the Enemy,* 181-187 and 245-248.

have been off-limits to Japan. The British Ambassador, Lord Halifax, noted an "overriding wish" to deny California crude to Japan.[749]

The new quota policy limiting petroleum exports to Japan to pre-war "normal" quantities would have severely constrained further gasoline exports. Japan imported approximately 700,000 barrels of gasoline from the United States in 1935 and 1.1 million barrels in 1936. By the end of May 1941, Japan had already exceeded that quota, having loaded 1.2 million barrels of gasoline. Therefore, Maxwell could halt any future shipments of gasoline based on exceeding the new export quota.

[749] Heinrich, 141.

Chapter 11 - Economic Defense in Economic Warfare

I. Introduction

While the President did not give Maxwell the desired position as Wallace's executive officer, Maxwell and the AEC were still positioned to assume the leading role for the development and direction of economic warfare operations within the new EDB structure. Ironically, Maxwell would succeed in this quest, but only by giving up his personal role in leading the economic warfare campaign.

At the end of August, when the EDB was still working out its role and organization, Brigadier General Sherman Miles, the Army Assistant Chief of Staff for Intelligence (G-2), issued a memorandum promoting formal recognition of the AEC's leading role in economic warfare. Miles was a long-time supporter and advocate of Maxwell's economic warfare activities. The memorandum was addressed to Marshall, the Army Chief of Staff, but Miles sent copies to the President, Vice President Stimson, the Secretary of State, the Coordinator of Information, and the Office of Naval Intelligence. He wrote:

> Economic warfare is essentially a military operation. It is offensive in character and is aimed at the injury of the enemy's economy. It is not concerned with internal economic problems of production, distribution, and consumption.
>
> The advisability of an agency in the United States Government, based on the experience of the British Ministry of Economic Warfare, is indicated, in order to plan and administer economic warfare measures. Intelligence as to the economic resources of the Axis countries should be coordinated in such an agency and should provide for the exchange

of such information with the Enemy Resources Department of the British Ministry of Economic Warfare.[750]

However, the establishment of the Supply Priorities and Allocations Board on August 28 created a new question over the role of the AEC within the organizational framework for directing national economic mobilization. On September 3, the Board, which was dominated by Maxwell allies, voted to transfer the AEC to the Office of Production Management, citing the need to consolidate priorities and allocations for the production of exports with other domestic industrial production priorities.[751] It was a weak argument. The EDB was much better positioned to act as a claimant for all foreign economic requirements, incorporating both commercial exports and lend-lease. Besides, at this point, the AEC was much more of an economic warfare agency than an economic mobilization agency. The vote was most likely an attempt to constrain the role of the New Deal faction of the Administration in economic strategy.

The EDB's new executive director, Milo Perkins, and Budget Director Harold Smith responded with a bureaucratic coup. The pair presented an executive order directly to the President, transferring all powers and personnel of the AEC to the EDB. In a notable departure from normal practice, they brought the order without prior clearance from any of the affected cabinet secretaries or agency heads. According to a Bureau of Budget report, "Both Perkins and Smith felt that the 'surprise' element would have a 'salutary' effect." It is unclear whether the President was aware of the clandestine nature of the order, but he signed it nonetheless.[752]

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[750] "Memorandum for the Chief of Staff, Subject: Economic Warfare—British Experience," dated August 26, 1941, Box 1, Folder Board of Economic Warfare, Entry 146 Office of Administrator, Records Analysis Division, Historical Monographs Prepared Outside Division, RG169, NACP..

[751] "Chronological History of the Economic Defense Board," 45.

[752] Ibid., 46.

The order assigned Maxwell's deputy, Lieutenant Colonel William Chickering, as the new chief of the AEC, but formally under Perkins' direction. Maxwell was reassigned to the Army, where he was dispatched almost immediately to head the US Military North Africa Mission. He directed the delivery of Lend-Lease munitions and supplies to the British Army in Egypt, which was struggling to defend the Suez Canal. At the time, it was Britain's most critical military front and a high priority for Roosevelt. His selection for the position was likely a reflection of his close connection to Harry Hopkins and Edward Stettinius, who were in charge of the Lend-Lease program. Shortly afterward, Maxwell became the commanding General of US Forces in the Middle East. In November 1942, he returned to Washington, where he was promoted to Major General and became the Army's Assistant Chief of Staff for Logistics (G-4), a position he held for the remainder of the war.[753]

A history of the Economic Defense Board prepared by the Bureau of Budget celebrated the subordination of the AEC to the EDB: "So passed the General, and with him the last hope of the Army that they would retain control of economic warfare. This long-sought-after prize was slipping into the hands of the civilians."[754]

The comments by the Bureau of Budget are more a reflection of the ideological animosity of New Dealers working in the Bureau towards the military and businessmen recruited by Hopkins, who were progressively taking control of the new defense agencies. Maxwell later noted that "the new management didn't have time to talk to me" after relieving him.[755]

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[753] West Point Association of Graduates, *Assembly*, vol. 28 (1970), 112.

[754] "Chronological History of the Economic Defense Board," 47.

[755] "Conference with Major General R.L. Maxwell, Formerly Administrator of Export Control."

The transfer to the EDB had almost no immediate change in its organization or mission, although morale cratered with Maxwell's departure.[756] Military officers continued to serve in the AEC and its successors well after the war began, although the proportion of officers declined significantly due to the increase in personnel numbers. At the end of September, Wallace replaced Chickering with Lieutenant Colonel Royal Lord, an officer he had gotten to know as the Secretary of Agriculture when Lord was leading the construction division of the Farm Security Administration.[757] Lord was assigned as Perkins' deputy and as the Director of Operations.

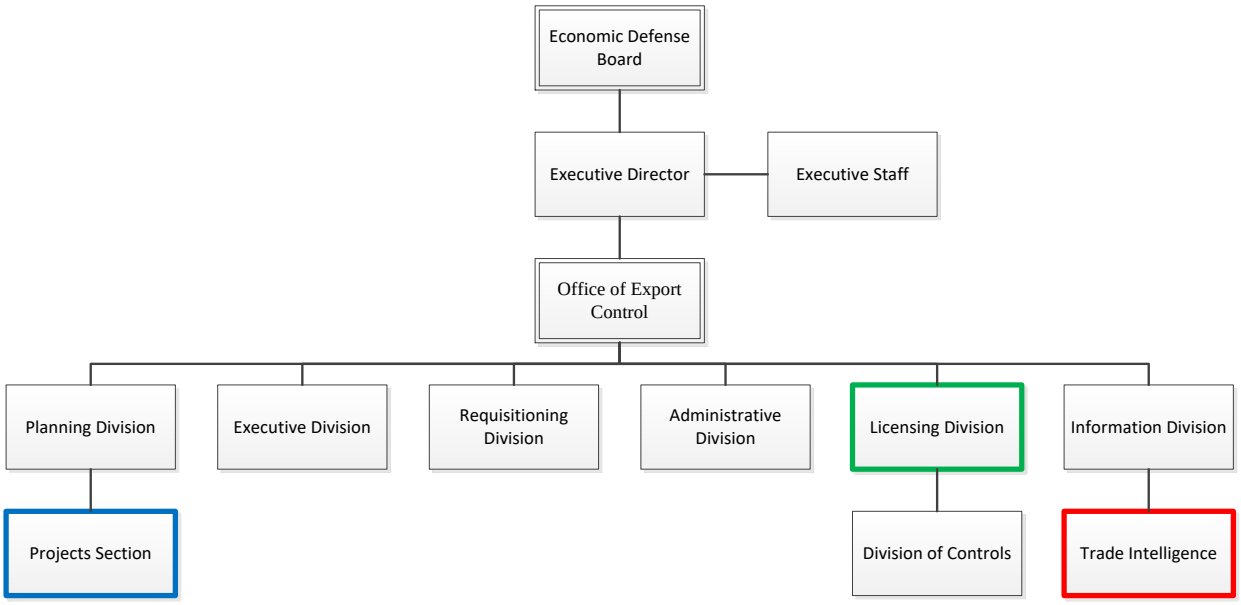

Figure 11.1 Organization of Economic Defense Board, October 1941. Projects (Planning), Trade Intelligence, and Licensing Sections are color-coded to show continuity of staff and function through future organizational changes.

[756] "Notes on the informal conference held Thursday, 8 March 1945, in Dr. Tayler's office."

[757] Lord graduated from West Point in 1923 and was commissioned into the Corps of Engineers. He would serve with the Economic Defense Board/Board of Economic Warfare until August 1942. He would later serve as the Chief of Staff of the Services of Supply, later known as the Zone of Communications, in Great Britain and France, where he acted as the officer linking the Supreme Allied Commander General Dwight D. Eisenhower and logistical command supporting the European Theater of Operations. He ascended to the rank of Major General.

With Wallace now in charge, the Administration increased the resources available to the former AEC. By January 1942, the number of personnel had nearly doubled to over one thousand.[758] In October, the State Department transferred the Division of Controls to the EDB, as well. The Division's personnel were absorbed by the Export Control Division. This severed the State Department's direct connection with export control.

II. EDB Reorganization

In November, Perkins and Lord reorganized the EDB and the OEC along geographical instead of functional lines. The OEC became the Office of the Chief of Operations under Lord. The divisions of the OEC were reorganized into an Office of Export Control and four geographical divisions: Far East, Europe and Africa, British Empire, and the American Hemisphere. The reorganization may have been inspired by Clabaugh's study of the Ministry of Economic Warfare's organization, which, at the time, was structured along geographical lines. Both organizations would reorganize within six months and revert to a division structure organized by function rather than geography.

[758] "The Board of Economic Warfare: A Functional Summary of Its Divisions and Committees," dated February 1, 1942. Box 1, Folder The Board of Economic Warfare: A Functional Summary of Its Divisions and Committees, Entry 146 Office of Administrator, Records Analysis Division, Historical Monographs Prepared Outside Division, RG169, NACP.

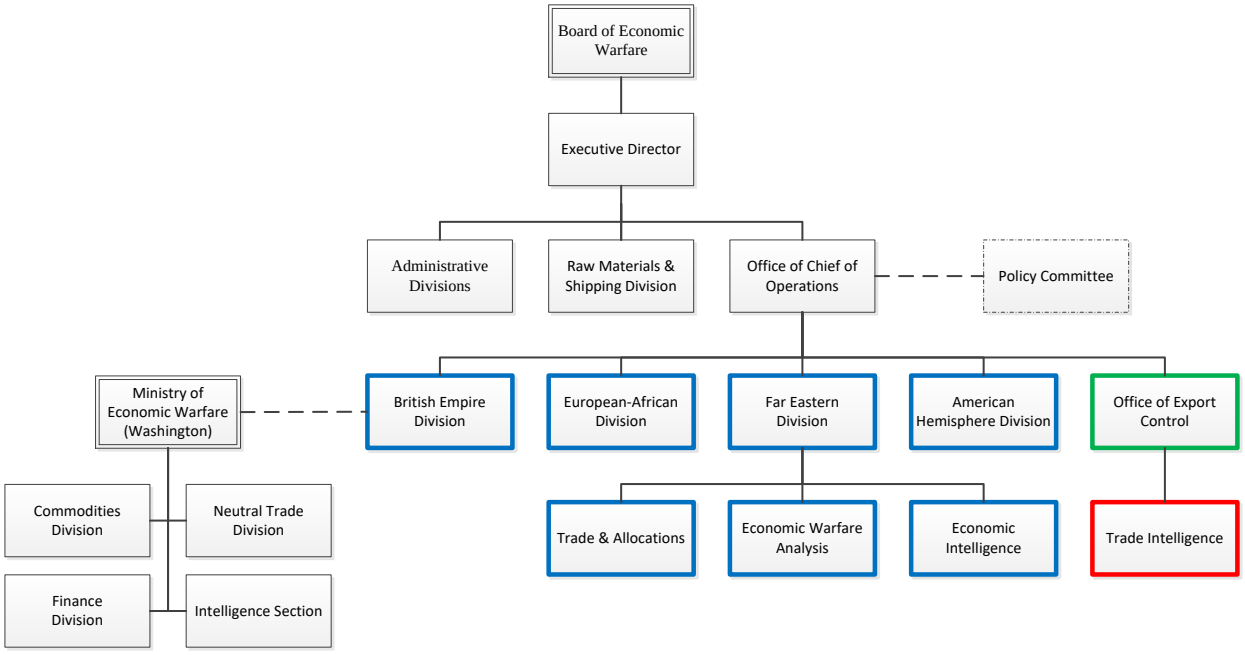

Figure 11.2 Economic Defense Board, November 1941. Blue offices were created from the Projects Section. Green offices were created from the Export Control Division. Red offices were created from the Trade Intelligence Section.

Each of the geographical divisions had its own Projects Section—now called Economic Warfare Analysis section—an economic intelligence section, and a trade and allocations section, which dealt with trade and lend-lease requirements, trade agreements, imports, and export quotas. Lord planned to include psychological warfare and post-war planning sections in each division, but these were never created.[759] The British Empire Division liaised with the Ministry of Economic Warfare staff at the British Embassy.

Maxwell's departure and the reorganization did not change the unit's economic warfare focus. The mission of each of the geographical sections was:

a. To hurt the enemy by economic pressure. This means the proper direction of export control, the formulation of bombing objectives in cooperation with the armed services, and other special measures designed to disorganize the enemy's war economy.

[759] The BEW established a small four-man post-war planning section as a separate unit.

b. To put economic pressure on neutral areas, to swing their economic strength to the Allied cause, and prevent the enemy from benefiting from their neutrality. The means here include preclusive purchasing, direct economic pressure (such as quid pro quo arrangements and control of shipping space), and air action.

c. To intensify assistance to our Allies and strengthen our own war effort, by maximizing the supply of raw materials from neutral areas and making possible the most efficient allocation of materials among the Allied nations.

d. To determine the factors essential to a lasting peace after an Allied victory, by understanding the economic background of the war, analyzing war aims in economic terms, and studying the problems of post-war reconstruction.[760]

By December, the Projects Section and its successors, the Economic Warfare Analysis sections within each geographical division, had completed 168 economic warfare studies. The majority of these (96) were about Japan, including 41 economic vulnerability studies and 17 industrial objectives studies—strategic bombing targeting studies—for the Army Air Forces. The remainder of the studies addressed economic warfare methods, economic pressure on European neutrals, the potential of various aspects of the war economies of the European Axis, and assessments of the Allied Soviet and Chinese war economies, as well as their potential lend-lease requirements. [761] In August, the Army Air Forces had asked Maxwell and the Projects Section to

[760] "Function of the European-African Division," undated, Box 2, Folder Chronological History of the Economic Defense Board, Entry 146 Office of Administrator, Records Analysis Division, Historical Monographs Prepared Outside Division, RG169, NACP..

[761] "Administration of Export Control Planning Division- Projects Section Reports Prepared as of December 15, 1941," dated December 15, 1941, Box 700, Folder Reports, Entry 88 Chief Projects Section, RG169, NACP.

study bombing objectives in Germany and the Axis-held territories, and work was continuing on this project.

The Far East Division described its objectives for these studies. "The special studies of commodities, transport, as well as studies of industrial locations, are specifically concerned with the preparation of material to be used in developing plans for military, naval, and aerial action. They pertain to industrial objectives for bombing, shipping bottlenecks for surface and submarine attack, raw material production areas which it may be desirable to attack or to avoid, and the vulnerability of Japanese cities to aerial attack."[762]

The Office of Export Control absorbed the operational intelligence section of the AEC Information Division which focused on updating the blacklists. The Office of Operations also maintained the OEC Policy Committee, albeit with reduced membership.[763] Outside of the Office of Operations, Perkins established a separate Legal Division, an Administrative Management Division, and a Shipping and Materials Division, which consolidated the material requirements from geographical sections and coordinated shipping priorities.

As part of the reorganization, Nelson Rockefeller, the Coordinator for Inter-American Affairs, agreed to transfer his Washington-based intelligence and economic research staff to the American Hemisphere Division. Rockefeller was then given a seat on the Economic Defense Board. The Commerce Department also agreed to place its Bureau of Foreign and Domestic Commerce, which had formed the backbone of the Project Section's interagency Commodity

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[762] "The Board of Economic Warfare: A Functional Summary of Its Divisions and Committees."

[763] The Policy Committee was chaired by Colonel J. E. Butterworth, who had the same position under Maxwell and the AEC. The committee's membership included representatives from each of the geographic sections, the War Production Board, Lend-Lease, the Army and Navy Munitions Board, the State Department, the Office of Price Administration, and the War Department.

Committees under the direction of the Office of Operations, although its members were not formally transferred to the EDB.[764]

Wallace and Perkins were most interested in using the Economic Defense Board to coordinate the procurement and transportation of needed raw materials from foreign countries in support of national economic mobilization. The Trade and Allocation Sections of each Division, which coordinated with the Shipping and Raw Materials Division, focused on this aspect of foreign economic relations. Later, they would expand this role to include foreign economic development projects to increase production of raw materials from existing sources and to develop new sources of supply. They eventually transformed the EDB and its successors into a mechanism for organizing and managing the global economy to meet the basic needs of allied economies, including those of the Latin American republics. This is the work for which the Economic Defense Board/Board of Economic Warfare, and its successor, the Foreign Economic Administration, is best known.

This did not mean that Wallace did not value or support his organization's economic warfare mission. On the contrary, he enthusiastically supported the economic warfare campaign. However, he was happy to delegate development and direction to Lord, while he and Perkins exerted more direct control over foreign economic tasks that supported the United States' own war economy. This suggests that the New Dealers' issue was not with what Maxwell was doing, but instead with who he was, or more accurately, his relationship with Hopkins and Stettinius. Lord, on the other hand, was within Wallace's own network.

On Sunday, December 7, the Japanese attacked American naval and army bases in Hawaii and the Philippines, formally bringing the United States into the war. Monday morning,

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[764] "Chronological History of the Economic Defense Board," 51-52.

Colonel Kerr, chief of the Export Control Division, sent a telegram to all customs inspectors. "All licenses authorizing exports to Japan and Japanese-occupied territories are revoked."[765] On December 17, the President redesignated the Economic Defense Board as the Board of Economic Warfare, although this change did not alter its organization or mission. The AEC and EDB had already been fully engaged in developing and directing the American economic warfare campaign for over a year.

In January, the BEW formally described its mission that reflected its dual nature: "The principal objective of the Board is the management of international trade, in the broadest sense, to accomplish the defeat of the Axis powers immediately and, at the same time to lay a foundation for a lasting peace in a world absorbed in the production and distribution required to lift the standard of living of all of its peoples."[766]

III. BEW Reorganization

The first few months of wartime experience led to the reorganization of the Board of Economic Warfare back to function-oriented divisions. The changes facilitated better coordination with the British Ministry of Economic Warfare, including combined operation of the "blockade," better organization for managing global trading systems, and a new structure for a greatly expanded program of preclusive purchasing.

[765] "To All Collectors of Customs," dated December 8, 1941, Box 271, Folder Japan, Entry 98 Office of Administrator of Export Control July 1940-May 1942, Central File (Area), RG169, NACP.

[766] "The Board of Economic Warfare: A Functional Summary of Its Divisions and Committees."

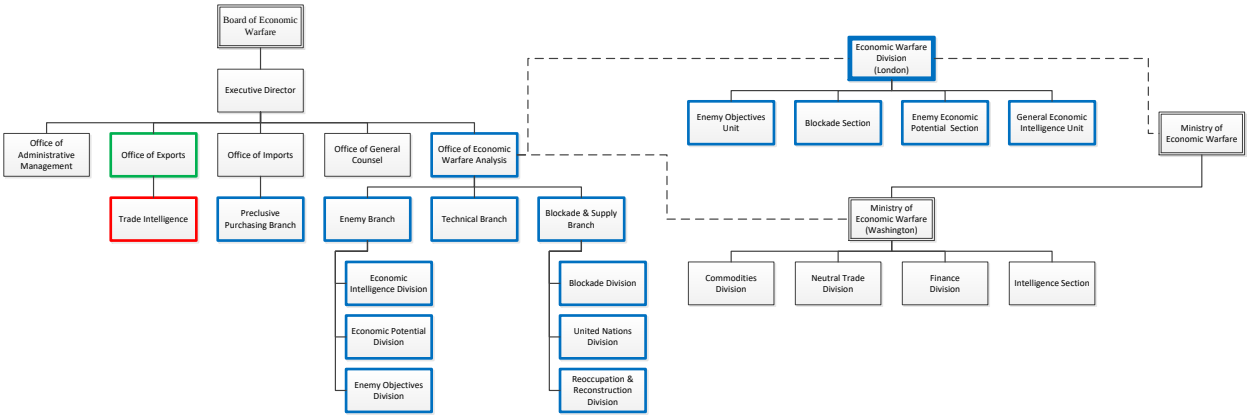

Figure 11.3 Board of Economic Warfare, July 1942. Blue offices were created from the Projects Section. Green offices were created from the Export Control Division. Red offices were created from the Trade Intelligence Section.

The Office of the Chief of Operations was abolished. The Division of Exports was elevated to an Office of Exports and its functions were essentially unchanged. Wallace and Perkins created a new Office of Imports under New Dealer Morris Rosenthal to focus on the procurement and development of foreign raw materials. As the Secretary of Agriculture, Wallace, with Perkins' help, had drafted a plan for a "New Deal for South America." The Office of Imports became a sanctuary for New Deal ideology in economic foreign policy. Rosenthal only hired New Dealers and tried to purge existing "conservatives and reactionaries" from leadership positions. In September of 1943, Rosenthal told an interviewer, "Throughout the entire period of my tenure of office, I emphasized the ideals of Mr. Wallace. If they were not sympathetic to the ideals of the Vice President, I didn't want them to work for the Office of Imports."[767]

[767] "Morris S. Rosenthal, Assistant Director of the Office of Economic Warfare," dated September 11, 1943, Box 1, Folder Manuscript: Interview with Morris S. Rosenthal, Entry 144 Office of Administrator, Records Analysis Division, Historians' Reports of Interviews, RG169, NACP.

The Economic Warfare Analysis sections of the geographical divisions were consolidated into an Office of Economic Warfare Analysis with primary responsibility for the economic warfare campaign. An unpublished post-war administrative history noted, "The Office of Economic Warfare began largely as a research group. It took over the Projects Section of the Administrator of Export Control office, which, among other things, had made studies of the economic weaknesses of the enemy's economy."[768] At least some of the leaders in the OEWA, such as Ralph Turner and LTC Shoemaker, had served in the Projects Section under Maxwell; therefore, it is unlikely that OEWA used the same ideological criteria in recruiting its staff. Antagonism between the two offices further suggests that the OEWA maintained at least some aspects of the original AEC's culture.[769]

The OEWA conducted studies of the German and Japanese economies to guide strategic bombing, blockade operations, and preclusive purchasing, and developed and directed economic warfare strategy towards the European Neutrals. It controlled exports to the European Neutrals—the Office of Export would automatically follow its instructions on approving or rejecting export—and helped negotiate War Trade agreements with them in an effort to restrict their trade

[768] "Final Report on Foreign Economic Administration (Overall Administrative History): The Post-Pearl Harbor Period," undated, Box 13 Folder FEA Administrative History Post-Pearl Harbor to July 1943, Entry 145 Office of Administrator, Records Analysis Division, Historical Monographs Prepared by Division, RG169, NACP.

[769] "Dr. Theodore J. Kreps, Chief Economic Adviser, Foreign Economic Administration," dated February 14, 1944, Box 1, Folder Manuscript: Interview by Dr. Taylor with Dr. Theodor J. Kreps, Entry 144 Office of Administrator, Records Analysis Division, Historians' Reports of Interviews, RG169, NACP. "Morris S. Rosenthal, Assistant Director of the Office of Economic Warfare." "Notes on the informal conference held Thursday, 8 March 1945, in Dr. Tayler's office."

with Germany. The Office was responsible for coordination, intelligence sharing, and combined operations with the Ministry of Economic Warfare.[770]

The Office was divided into three branches: the Enemy Branch, the Blockade and Supply Branch, and the Technical Branch. The Enemy Branch was responsible for strategic estimates and plans to hurt the enemy's economy. It was further divided into three branches. The Enemy Potential Division assessed the war economies and war potential of enemy countries. The Enemy Objectives Division analyzed potential target sets for strategic bombing and recommended the most effective strategy for degrading the enemy war economy through strategic bombing. The Economic Intelligence Branch collected, collated, analyzed, and distributed economic intelligence from its own agents and from other intelligence agencies, as well as the Ministry of Economic Warfare, for use by the other branches of OEWA and for the military's Joint Intelligence Committee.[771]

The Blockade and Supply Branch collaborated with the Ministry of Economic Warfare to implement the combined economic blockade. It had a Blockade Division responsible for blockade operations in the European Neutrals and Latin America. A United Nations Division coordinated supply requirements to be filled by Lend-Lease, and a Reoccupation and Reconstruction Division coordinated supply requirements for the administration of liberated areas formerly under Axis occupation by the military. The Technical Branch was responsible for oil and international air transport.[772]

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[770] "Final Report on Foreign Economic Administration (Overall Administrative History): The Post-Pearl Harbor Period."

[771] Ibid.

[772] Ibid.

The Offices of Exports and Imports each had divisions that worked with the Office of Economic Warfare Analysis in conducting the American and Allied economic warfare campaigns. The Office of Exports retained the Trade Intelligence Division which was responsible for maintaining and updating the Blacklists. The Division had primary responsibility for the Blacklists covering Latin America and US citizens while the Ministry of Economic Warfare had primary responsibility for lists covering the European Neutrals and British citizens. The Office of Imports, due to its role in purchasing foreign commodities, included a Preclusive Purchasing Branch. This branch collaborated with OEWA in selecting purchasing targets; however, both organizations maintained ultimate authority over purchasing decisions.[773]

At the end of March, Jesse Jones, who was both Secretary of Commerce and Federal Loan Administrator, established the United States Commercial Company (USCC) as a new government corporation under the RFC. The USCC was an analogue of the British UKCC. It was created expressly to conduct preclusive purchasing operations. As such, it operated under the direction of the BEW. The creation of the USCC resolved one of the core problems the other RFC corporations faced in conducting preclusive purchasing operations. By their nature, preclusive purchasing operations tended to drive up the price of the commodities purchased as Allied and Axis agents competed with increasingly higher bids to corner the market. However, by law, the other corporations were not allowed to operate at a loss to the government. This meant they eventually had to sell the commodities to US businesses at the price they purchased them for. The USCC, however, was authorized to operate at a financial loss, which was written off as a cost of war.[774]

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[773] Ibid.

[774] "Need for Strategic and Critical Raw Materials."

To facilitate combined economic warfare operations with the Ministry of Economic Warfare, the BEW also established an Economic Warfare Division at the American Embassy in London, corresponding with the branch of the Ministry of Economic Warfare which had been operating from the British Embassy in Washington for the last year. In practice, the EWD served as the operational headquarters for American economic warfare operations in Europe, while the OEWA in Washington directed American efforts in Latin America and against Japan.

Wallace assigned Winfield Riefler to head the Division. Starting out with a staff of only six in March 1942, it grew to 50 personnel by October 1943. Half the personnel came from the OEWA, with the remainder provided by the Office of Strategic Services, the military, the State Department, and the Office of Civil Defense. It was organized similarly to OEWA, with a Blockade Section, an Enemy Economic Potential Section, an Economic Intelligence Section, and an Enemy Objectives Section.[775] Chandler Morse, one Hewes' former lieutenant in the Projects Section, had joined the Research and Analysis Section of the OSS and served as the chief of the Enemy Objectives Unit where he played a critical, and largely unrecognized role, in shaping the American strategic bombing campaign against Germany along the lines of the principals of economic warfare Chandler, Hewes, and Turner had explicated in January 1941.

The organization of the Office of Economic Warfare Analysis realized Maxwell's vision of an economic warfare agency that was divested of responsibility for economic mobilization but still able to direct and coordinate economic-related activities of those agencies through a high-level economic warfare council under the Vice President.

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[775] "Final Report on Foreign Economic Administration (Overall Administrative History): The Post-Pearl Harbor Period."

IV. The BEW Becomes the FEA

In June 1943, a long-simmering feud between Wallace and Jones over "New Deal" clauses in foreign labor contracts in resource development projects administered by the Office of Imports but funded by the RFC erupted into a series of mutual public denunciations, which deeply embarrassed Roosevelt and threatened to undermine the legitimacy of the costly mobilization measures. The episode allowed Roosevelt's chief lieutenants, Jimmy Byrnes and Harry Hopkins, to persuade the President to remove Wallace from the Board of Economic Warfare and his role in foreign economic strategy.[776] The BEW was rechristened as the Office of Economic Warfare, and the President placed Leo Crowley, a Roosevelt loyalist and Byrnes protégé, in charge.[777] Two months later, Roosevelt consolidated most of the federal agencies responsible for foreign economic operations, including the Office of Economic Warfare and the Office of the Lend-Lease Administration, into a new Foreign Economic Administration (FEA) directed by Crowley. The FEA, in turn, was then placed under the direction of a new Office of War Mobilization, headed by Byrnes, which would oversee all aspects of national economic strategy, both foreign and domestic.

Wallace's removal signaled a decline in the influence of the more progressive New Deal faction on the development and conduct of economic strategy, both domestic and foreign. The consolidation of all economic agencies under Byrnes also appeared to many to align with the organizational principles of the Industry Mobilization Plan and Roosevelt's critics used the reorganization to criticize the Administration's conduct of national mobilization and to question

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[776] Ibid. "Comments on the Statement Made by Jesse Jones, Secretary of Commerce, on July 5, 1943," undated, Box 1, Entry 128, RG169, NACP. "Dr. Theodore J. Kreps, Chief Economic Adviser, Foreign Economic Administration."
[777] Stuart L. Weiss, *The President's Man: Leo Crowley and Franklin Roosevelt in Peace and War* (Carbondale: Southern Illinois University Press, 1996).

why the President hadn't implemented the IMP administrative structure, with its more significant leadership role for industry (the ideological enemies of the New Dealers), earlier. This criticism established the context for the Bureau of Budget's wartime and post-war histories, which sought to justify the President's—who was being advised by the Bureau—pre-war and wartime organizational decisions. This explains the stark difference between Budget's assessments of Maxwell and the AEC in *The Chronological History of the Economic Defense Board* and *The United States at War*, and that of Roberta Johns in her report "An Historical Record of Export Control" written under William Lonsdale Tayler's direction. It also helps explain the Bureau of Budget's contempt for Maxwell as a proxy of both the IMP and the ascendant faction of more moderate and pragmatic members of the Administration recruited by Hopkins and Byrnes.

To better integrate the disparate agencies being combined into the FEA, "the old working teams were broken up deliberately with the purpose of getting groups from various agencies to work together."[778] Crowley consolidated operations into two principal operating bureaus: a Bureau of Supply and a Bureau of Areas.

[778] "Final Report on Foreign Economic Administration (Overall Administrative History): The Post-Pearl Harbor Period."

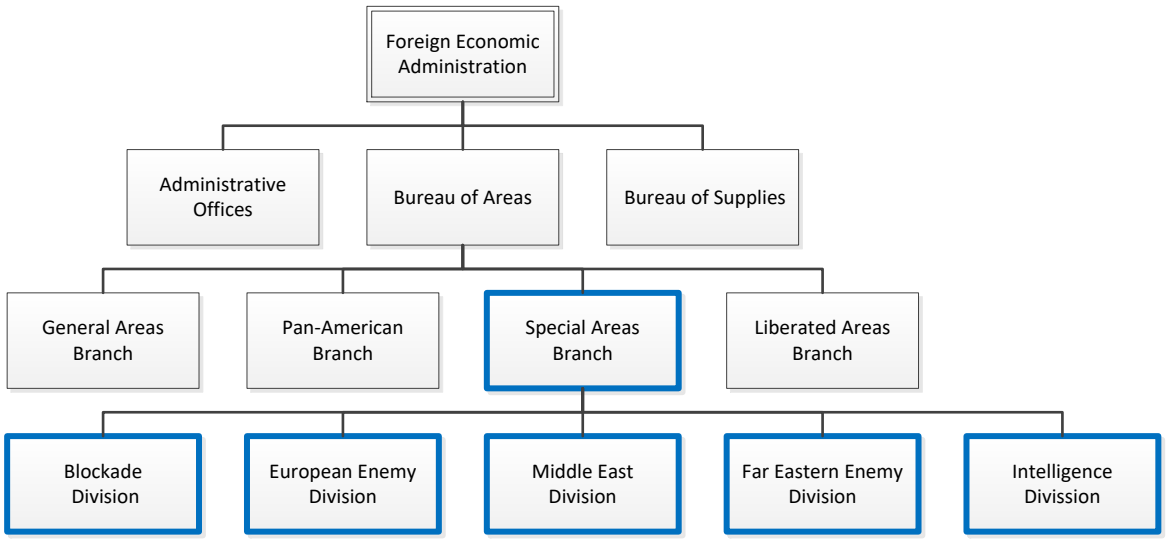

Figure 11.4 Foreign Economic Administration, October 1943. Blue offices were functions originally in the Projects Section of the AEC.

Most of the Office of Exports and the Office of Imports from the OEW were placed under the Bureau of Supplies, which was responsible for procuring and transporting raw materials, managing foreign trade, and fulfilling supply requirements. The Bureau also directed the operations of the USCC, which were expanded from preclusive purchasing to encompass the majority of foreign raw material procurement.

One of the responsibilities of the Bureau of Areas was the development and control of economic warfare programs. The Bureau was organized into four branches: the General Areas Branch in charge of lend-lease to the British Empire and the Soviet Union; the Liberated Areas Branch in charge of supply to countries freed from enemy control; the Pan-American Branch for operations in Latin America; and the Special Areas Branch responsible for most economic warfare functions directed against Germany and Japan, but which was also responsible for lend-lease to the Middle East. Most of the OEW's Office of Economic Warfare Analysis, including the Enemy Branch, with its Enemy Potential, Economic Objectives, and Economic Intelligence Divisions, as well as the Blockade Division of the Blockade and Supply Branch, were transferred

to the Special Areas Branch. Almost every area, however, was concerned to some extent with the Bureau's main functions: lend-lease, imports, commercial exports, relief, and economic warfare. The Special Area Branch was later redesignated as the Enemy Branch. The organization of the Economic Warfare Division in London remained unchanged.[779]

[779] Ibid.

Chapter 12 - Conclusion

In the months and years leading up to the United States' entry into World War II, President Roosevelt established a series of strategic organizations to develop, direct, and coordinate the military, economic, diplomatic, and psychological elements of his grand strategy. He centralized control under his personal direction or that of his trusted advisers and lieutenants, on whom he relied to understand and implement his objectives for achieving national goals.

Roosevelt divided the responsibilities for the economic campaigns of his grand strategy into domestic and foreign operational components. The domestic element focused primarily on the strategic challenges of feasibility and acceptability—specifically, the development and distribution of economic resources to meet the military's requirements for creating and maintaining the capabilities necessary to support military campaigns aimed at defeating the Axis Powers (feasibility), as well as addressing the needs of the civilian population (acceptability). The foreign component included economic warfare campaigns designed to weaken enemy war economies (suitability), support the war economies of allies (feasibility), and garner the support of neutral nations for the national grand strategy (acceptability).

Economic warfare was a core element of American grand strategy from June 1940 until the war's conclusion. As a strategic concept, economic warfare aligned with the understanding among Roosevelt and other senior leaders that national power in total war is rooted in economic strength. Consequently, it naturally complemented the President's strategic pillar of becoming the "Arsenal of Freedom."

Despite facing growing public and congressional scrutiny, Roosevelt intentionally and incrementally implemented an expanding and increasingly effective economic warfare campaign against the Axis Powers. This campaign formally commenced in July 1940 with targeted

restrictions on strategic raw materials, technology, and machine tools. It soon became evident that export controls were being employed for purposes beyond merely conserving strategic materials for the American munitions industry. Before December 1941, the campaign was conducted within the United States and extended to the Latin American republics and a few remaining European neutrals. It progressed in both scale and scope, and by August 1941, it had effectively blocked Axis access to nearly all resources in the Western Hemisphere. Economic warfare played a significant role in the initial formal formulations of national and allied strategy. The American and British Staff Conversations, conducted by the military planning staffs of the future Allies, explicitly stated that a successful economic warfare campaign was a crucial precondition for defeating the Axis powers. They ranked it as the top strategic concept in the ABC-1 plan. During the conference, the staff agreed to initiate liaison between their respective economic warfare agencies—the Administration of Export Control and the Ministry of Economic Warfare—though this did not amount to formal coordination of their campaigns.

In August 1941, after Roosevelt intensified the US economic warfare campaign against Japan by effectively halting future exports and imports and extending existing financial controls against the European Axis to Japan, the United States and Britain began formally coordinating their economic warfare measures. The British, along with the Dutch, agreed to follow the American lead in economic warfare against Japan.

Following the President's directive in July 1941 for the US military to plan a war to defeat the Axis powers, the US Joint Army and Navy Board, antecedent of the later Joint Chiefs of Staff, reiterated the central role of economic warfare in American grand strategy through their "Victory Plan," which they submitted to the President in September 1941. After the Japanese attack on Pearl Harbor and the Philippine Islands in December, the American and British co-

belligerents reaffirmed their combined strategy in ABC-1, emphasizing economic warfare's central role. The American military leaders insisted on a more extensive campaign against the Japanese war economy than the British had originally envisioned.

Roosevelt entrusted his inner circle of most trusted aides with responsibility for foreign economic strategy and economic warfare. As indicated by Maxwell's White House meeting with Harry Hopkins and Edward Stettinius on June 13, 1940—the day he was assigned to administer export control—Hopkins oversaw the implementation and activities of the Administration of Export Control and its key supporters in the NDAC (Stettinius, Knudson, and Harriman) and the Office of the Coordinator for Inter-American Affairs (Rockefeller). In July 1941, Roosevelt appointed Vice President Henry Wallace to coordinate the escalating economic warfare campaign. Two years later, in July 1943, he transferred responsibility for economic warfare to Leo Crowley, under the overall supervision of James Byrnes.

The creation of the AEC and the incremental implementation of economic warfare were not haphazard reactions. The pattern for the economic warfare campaign was initially developed by the War Trade Board during World War I. After the war, the Army continued to study and plan for economic warfare through the Office of the Assistant Secretary of War, the Army and Navy Munitions Board, and the Army Industrial College, incorporating these strategies into the Industrial Mobilization Plans (IMP). At a minimum, Hopkins, Stettinius, and Maxwell were aware of these plans, and given the level of debate and controversy surrounding the IMP within the Roosevelt Administration, it's likely that the details were even more widely known. Roosevelt's establishment of the AEC on Hopkins' recommendation institutionalized the economic warfare aspects of the IMP's War Trade Annex.

The AEC's successor, the Economic Defense Board, evolved into the Board of Economic Warfare, which was closely aligned with the War Trade Administration proposed in the War Trade Annex and further developed by the AEC's Planning Division as the Economic Warfare Administration. Although these functions became increasingly embedded within expanding organizational charts as strategic economic roles consolidated, the core group of planners, economic warfare doctrine, and operational machinery that Maxwell established within the AEC persisted throughout the war in the EDB, BEW, and FEA.

American economic warfare was distinct and developed independently from British economic warfare organizations and theory. While both British and American economic warfare efforts stemmed from shared experiences with methods developed by the British in World War I, the evolution of economic warfare theory and plans occurred independently after the war. The US Army engaged in continuous, independent, and systematic economic warfare planning throughout the interwar period, institutionalizing lessons from WWI that were separate from British efforts. It could be argued that American interwar planners devoted more effort and consistency to economic warfare planning than did their British counterparts. The AEC was structured and operated based on the US-developed IMP War Trade Annex, rather than British models.

Some of Maxwell's initial actions as administrator focused on expanding the economic warfare role of the AEC beyond export control to include the full range of methods outlined in pre-war plans. Through the efforts of hand-picked officers at the Army Industrial College, integrated with a talented group of scholars, businessmen, and civil servants borrowed from other agencies, the AEC developed its own practical economic warfare doctrine. This doctrine built upon lessons learned from World War I and theoretical studies conducted during the

interwar period. The core U.S. economic warfare doctrine was articulated independently within the AEC before significant collaboration with the MEW began.

However, differences in government structures and relevant legal frameworks would have limited the potential for sharing developments. There was no institutional connection between the two countries for sharing information on economic warfare until April 1941, following the ABC conference, when economic warfare liaison officers were exchanged. This exchange occurred after the Projects Section had completed most of its doctrinal development, procedural planning, and organizational planning. Prior to this exchange, efforts by the MEW and its parent ministry, the Foreign Office, to generate interest in coordinating economic warfare measures were not reciprocated by the U.S. State Department, a situation only resolved by the extraordinary efforts of the AEC—supported by the Army and Hopkins' protégés—to circumvent State's reluctance.

The American conception of economic warfare was broader than the British theory, which primarily focused on degrading the enemy's war economy. With its superior economic capacity, financial resources, and raw material supplies, and unconstrained by the need to absorb surplus production not required for its war economy, Roosevelt was able to direct national economic power to reshape global trade networks in favor of the American war effort while still providing substantial support to the British. By August 1941, Roosevelt and Wallace had effectively taken control of a now-combined Allied global economic warfare campaign. At the onset of the war, the Board of Economic Warfare depended on the MEW solely for its Navicert blockade framework, as the U.S. had never established the legal framework for prize courts and contraband laws necessary to enforce the blockade through the interception and detention of neutral ships carrying potential contraband.

Furthermore, unlike the British MEW, the Maxwell and Projects Sections were able to gain the trust and confidence of the Army Air Force officers responsible for strategic bombing. By May 1941, the Projects Section was actively developing target sets for a future American strategic bombing campaign. At the same time, Britain's Bomber Command was losing confidence in the MEW and shifting away from using strategic bombing to directly attack the German war economy. By mid-1942, the American 8th Air Force would closely integrate Chandler Morse and a small group of planners from the BEW's Office of Economic Warfare Analysis and the Office of Strategic Services with its own planning staff to design the strategic bombing campaign. Meanwhile, their counterparts in Washington were cooperating in the larger Committee of Analysts, which helped chart the future of the Combined Bomber Offensive set to begin in mid-1943. In contrast, the objectives unit of the MEW was performing most of its own work in support of the American strategic air force because its own Bomber Command would not accept it.

The American pre-war economic warfare campaign was both effective and efficient. The AEC was not responsible for executing every economic warfare measure employed by the United States government, but its planning and advocacy provided direction and a unifying theory of victory for the expanding campaign. Economic collapse was not the proximate cause of Axis defeat; assessments of that point often overlook the continuous, or even growing, wartime production by the Axis war economies, omitting the fact that the magnitude of production was no longer sufficient to meet the requirements of Axis strategy (feasibility) or that production did not provide the needed capabilities (suitability). They also often overlook the impact on morale (acceptability).

The combination of export controls, preclusive purchasing, diplomatic pressure, and shipping restrictions reinforced the weakening British economic blockade of Axis Europe. After the Axis conquest of Western Europe in the spring of 1940, followed by the takeover of the Balkans and Greece a year later, the British Navy could no longer maintain the traditional blockade. This blockade relied on screening the cargoes of neutral ships at designated control ports and intercepting blockade runners with squadrons of cruisers patrolling key maritime chokepoints. Additionally, the British lacked the financial resources to incentivize, or the military resources to coerce, the remaining European neutrals and Latin American republics—or even the United States—into complying with their new control-at-the-source scheme, which depended on the voluntary application for Navicerts from British overseas missions.

This situation mirrored the challenges faced with uncooperative overseas and adjacent neutrals that undermined the Anglo-French blockade during World War I. As in the First World War, the United States provided a solution. American purchasing and loans, primarily through government corporations, offered the necessary financial incentives, while the threat of export and shipping controls compelled neutral participation in the blockade system.

The Project Section's "Coordinated Plan of Economic Action in Relation to Japan," completed in May 1941, may have influenced the President's July decision to commit the US military to the defense of the Philippines and Southeast Asia. It provided a credible theory of victory based on denying the Japanese war economy access to raw materials and depleting its stockpiles until continuing its conquest became economically unfeasible. However, by December, the fortunes of war quickly undermined the basic assumptions of this Economic Warfare Plan Orange in ways that could not have been reasonably anticipated. Much of the promised airpower did not arrive in the Philippines before the war began, and the forces that did

were swiftly destroyed on the ground. American submarine torpedoes were defective, and their tactics proved ineffective. The cruiser *Boise* ran aground and had to withdraw before the fighting commenced. The British fast battleship *Prince of Wales* and the battlecruiser *Repulse* were immediately sunk by Japanese bombers. The destruction of the American battleship force at Pearl Harbor ended their role as a deterrent fleet that could keep the Japanese Combined Fleet confined to ports in or near Japan, should it counter a sortie by the Pacific fleet from its base in Hawaii. The British ground forces in Singapore surrendered much more quickly than expected, and British and Dutch operatives failed to destroy their respective oil facilities as thoroughly as anticipated. The unexpectedly rapid conclusion of the Japanese campaign, which ended in May with the American surrender in the Philippines, meant that the Japanese did not experience the level of attrition expected by the joint military-AEC planning staff.

Despite this, the pre-war American economic warfare campaign achieved several measurable successes, distinct from the later combined blockade, strategic bombing, and submarine interdiction of sea lines of communication. These successes significantly impaired the suitability, feasibility, and acceptability of both German and Japanese grand strategies.

The AEC's early export controls significantly degraded or limited the development of critical military capabilities, which, in turn, constrained the range of suitable operational concepts available to Axis strategists. The pre-war economic warfare campaign diminished the effectiveness of Axis air power, one of the most critical military capabilities during the war. Export controls on the manufacturing technology and essential equipment for producing 100-octane aviation fuel—more so than controls on high-octane aviation fuel itself—prevented Axis combat aircraft from achieving comparable power levels. These power levels determined relative performance in several tactically significant attributes such as speed, rate of climb, range, and

weapons payload. Consequently, this often placed Axis pilots at a tactical disadvantage, resulting in higher losses. In fact, the ability of long-range fighter planes to challenge the German Air Force over Germany from late in the war until D-Day was largely due to the higher octane rating of American aviation fuels. Additionally, German aircraft engines suffered from poor-quality aviation-grade lubricants, which further degraded their performance and reliability.

World War II combat operations highlighted the tactical advantages conferred by effective electronic communications (radio) and sensors (radar and sonar/ASDIC). Export controls and preclusive purchasing operations in Latin America targeting the commodity components of these systems—such as copper, mica, quartz crystals, and vacuum tubes—also limited the relative effectiveness of Axis military forces. Radio communications enabled better coordination among tactical forces and facilitated higher operational tempos due to more rapid information sharing. Radar improved detection and engagement accuracy against enemy air and naval targets, while sonar provided similar benefits for submarine targets. None of the Axis powers could field either the quantity or quality of Allied radios, radars, and sonars. This limitation hindered their ability to defend against strategic bombing attacks or gain control of the seas. The Japanese lack of sonar and limited number of radars severely restricted their Navy's capacity to counter the American submarine campaign. These shortcomings in critical military capabilities stemmed from the economic warfare campaign.

Mechanized and motorized combat forces, along with logistics systems, were significantly more capable than formations that relied on draft horses for their motive power. Although the relatively small number of German armored divisions earned a notable reputation for their combat effectiveness, none of the Axis Powers managed to motorize the majority of their ground forces. One of the primary constraints on greater motorization was the limited

supply of rubber available for vehicle tires and the road wheels of tracked combat vehicles, particularly for the German military.

Germany had a substantial synthetic rubber industry; however, synthetic rubber was not suitable for all purposes, especially the main components of a tire. As a result, Germany still required significant quantities of natural rubber. Most of the world's natural rubber was produced in Southeast Asia, with smaller amounts cultivated in Latin America. The Japanese had limited access to rubber until they occupied French Indochina and relied heavily on imports of scrap rubber from the United States to meet even their minimum requirements. American export controls and competitive purchasing of Southeast Asian and Latin American rubber restricted the surplus rubber that the Japanese could obtain and afford to transship to Germany via Vladivostok and the Trans-Siberian Railroad.

After Germany invaded the Soviet Union in June 1941, it depended on a small number of blockade runners from Japan. Germany's limited rubber supply was a major constraint on its ability to develop larger mechanized or motorized combat and logistics units, which, in turn, limited its potential combat power.

Export control and early American economic warfare measures constrained Axis strategists, particularly the Japanese, by limiting the feasibility of their wartime strategies. After entering the war with China in 1937, Japan began stockpiling critical raw materials while simultaneously investing heavily in expanding the productive capacity of its heavy industries. The United States was one of Japan's main sources of raw materials, but the outbreak of war in Europe in September 1939 redirected a significant portion of global trade, including many of Japan's raw material sources, toward the Allied and Axis war economies. This shift made Japan increasingly dependent on the United States and on new supply sources in Latin America, which

was grappling with growing commodity surpluses stranded by the war. Although Japanese purchasing in the United States increased substantially, they were unable to continue building their stockpiles in most commodities. By July 1941, the incremental implementation of export controls and preclusive purchasing forced Japan to begin consuming its reserves.

When Japan initiated war against the United States and the British Empire in December 1941, it lacked the raw material supplies necessary to operate many of the industries it had heavily invested in, including steel, aluminum, copper, and oil, at full capacity. One industrial sector after another began to collapse. While the decline of industries relying on raw materials from newly conquered territories can be reasonably attributed to the American submarine campaign, the collapse of industries dependent on raw materials sourced outside of Japanese conquests must, at least in part, be attributed to American, British, or combined economic warfare campaigns. These sectors included chemicals, electronics, textiles, and agriculture. Shortages of ferro-alloys, non-ferrous metals, and other essential precursors like fluorspar, crucial for both aluminum and steel production, were also exacerbated by economic warfare measures. Although Japanese industry managed to supply munitions to its military well into 1944, production figures reveal that output fell significantly short of potential capacity and was insufficient to support effective military strategies for achieving the war's original objectives.

Finally, the acceptability of Axis strategies—particularly those of Japan—was limited as economic warfare imposed increasingly heavy costs on the civilian economy, degrading quality of life and morale. American export controls and other economic warfare measures specifically targeted the textile and agricultural sectors, aiming to disrupt employment, raise the cost of living, and undermine the food supply available to the Japanese population. These actions

contributed to growing social unrest within Japan and may have influenced Japanese leaders' decision to surrender.

Although a full accounting of the wartime economic warfare campaigns is beyond the scope of this dissertation, the American pre-war economic warfare campaign effectively fulfilled its role in American and Allied grand strategy. While it did not win the war, it was a necessary precondition for the American theory of victory.

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