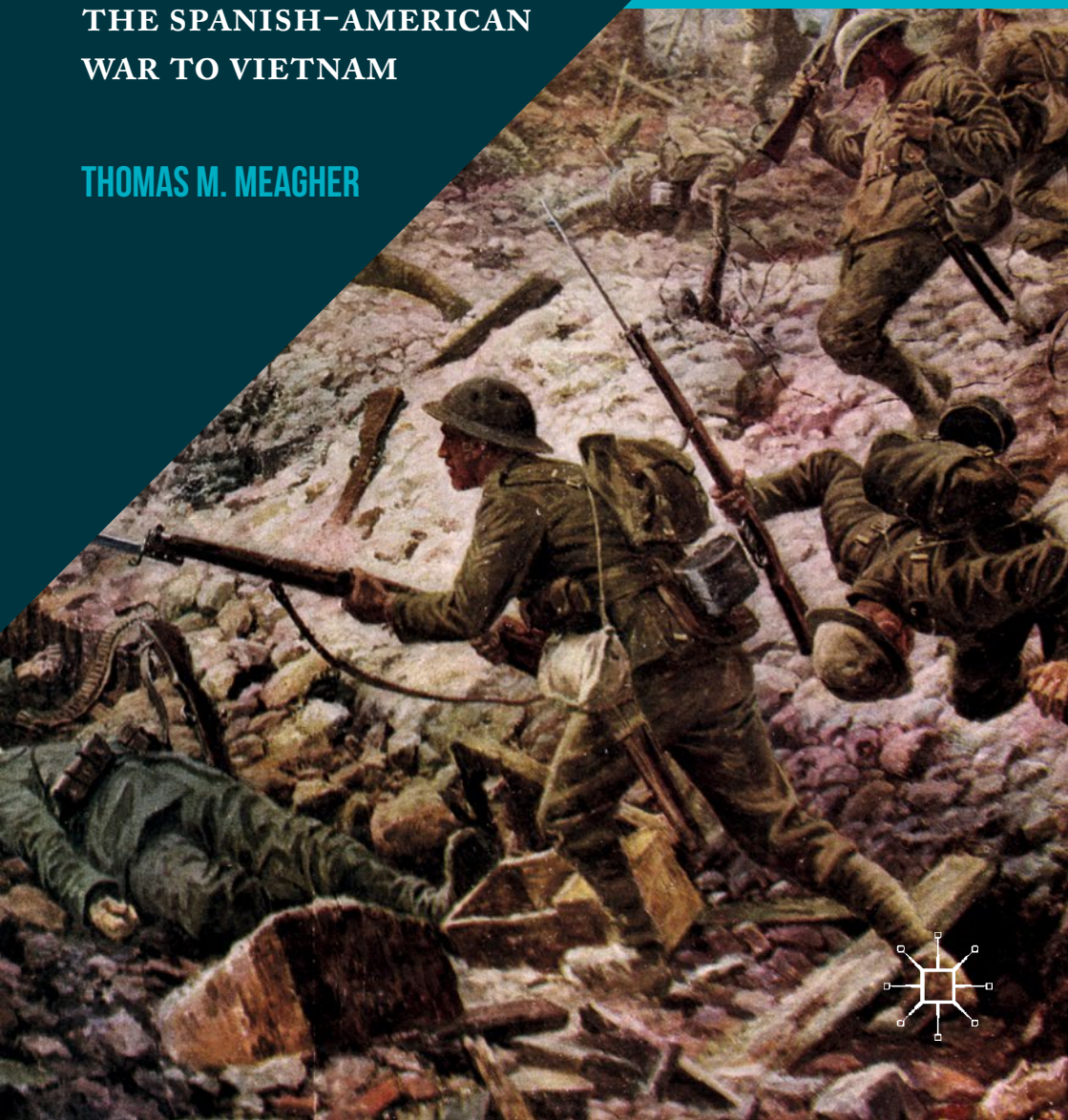


# FINANCING ARMED CONFLICT

RESOURCING US MILITARY  
INTERVENTIONS FROM  
THE SPANISH-AMERICAN  
WAR TO VIETNAM

VOLUME 2

THOMAS M. MEAGHER



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Resourcing US Military Interventions from the  
Spanish-American War to Vietnam

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*In loving memory of Thomas Francis Meagher—a man whose life was a  
daily inspiration to everyone who knew him.*

## PREFACE

“Wars are not decided exclusively by military and naval force; finance is scarcely less important. When all other things are equal, it is the longer purse that wins.”<sup>1</sup>

For some time now, there has been an ongoing academic debate regarding an “American Way of War”. This debate has its roots in the work of military historian Hans Delbruck, who, in his landmark analysis of the German army, argued that there were two strategic approaches to modern warfare: annihilation and attrition.<sup>2</sup> With this framework in mind, Russell Weigley argued that the United States has, since the Civil War, pursued a strategy of annihilation.<sup>3</sup> Brian McAllister Linn by contrast argued the opposite; that is, the United States instead has employed both approaches.<sup>4</sup> Antulio Ecchevaria and other distinguished military historians have also weighed in with opinions on the subject.

However, I believe that a pure focus on military strategy and operations misses a critical point; any discussion of an American War of War must include a detailed analysis of political, economic and financial factors as well. Why study the interaction between politics, strategy, military history, finance and economics? While a substantial amount of scholarly work exists relative to politics, strategy and military operations, the study of the study of the resource management of armed conflict, by contrast, is a relatively under researched sub-concentration of military history and national security policy for two primary reasons. First, this subject matter falls outside of the traditional boundaries associated with military history, as historian John Lynn notes:

“To me, the essence of military history is combat; it is what makes our subject unique. The life and death nature of war defines attitudes and practices within militaries, even in peacetime and even in elements of the military which are not directly in harm’s way.”<sup>5</sup>

Secondly, war resourcing is also viewed by many historians as an exclusively economic as opposed to a military issue. The most influential proponents of this thesis were Mary and Charles Beard and Louis Hacker. The Beards regarded the Civil War as a watershed resulting in the “rise of capitalism”.<sup>6</sup> Yet, as Chester Wright noted:

“In the Revolution, the direct outlay, Continental and state expenditures were probably not over one hundred fifty million specie value and the post war reaction was relatively brief. Government outlay was under ninety million, but the post war depression, while slower in appearing, was more serious; yet some of this should be attributed to the abnormal stimulation given the country’s economy before 1812 by the European wars. The Civil War losses must have achieved much greater proportions. The direct government outlay in the Union alone was over five billion dollars and the process of readjustment was not completed before 1878.”<sup>7</sup>

Economic historian Herman Krooss calculated that “each of America’s three wars (following the War of 1812) cost ten and one half times the previous one; the Civil War cost the United States over three billion dollars, World War One over thirty three billion dollars, and World War Two approximately three hundred and sixty billion dollars”.<sup>8</sup>

This leads to a question: what are the goals and concerns of the financial system in the event of war? Jonathan Kirshner argues that

“Bankers dread war. More precisely, financial communities within states favor cautious national security strategies and are acutely averse to war and to politics that risk war. This general rule holds across time and place, in a wide variety of political and economic settings. Finance wants macroeconomic stability. Because war is largely incompatible with macroeconomic stability, the financial community is especially leery of risking armed conflict. This disposition is an important influence in contemporary international relations and will remain so long as financial globalization endures.”<sup>9</sup>

Thus, while financial and economic forces have and were not been the main cause of American wars, they often played an important role in pushing the nation towards war. The role of finance and economics in

war and peace therefore is still an important component in the study of military history and the development of future national security policy, particularly as the United States faces some grim new realities attempting to finance its current defense establishment in light of current threats.

The negative consequence of armed conflict upon the financial system is well known: extraordinary government expenditures resulting in higher taxes, increased debt levels, currency debasement, post war deficits, and inflation. Still, bankers have been financing and resourcing armed conflict since the beginnings of the modern financial system in the early fifteenth century. If financiers are that leery of the consequences of armed conflict, why should this be? In this book, I make the argument that, despite the disinclination towards war, there were significant incentives to providing financial and resource management support to individual rulers and nation states in times of war. This is particularly true when considering the military history and national security policy of the United States of America.

This book utilizes from two different approaches:

- A qualitative methodology that seeks to analyze the resourcing of American armed conflict through the study of political, economic, military and other cultural factors
- At the same time, utilizing a quantifiable methodology that supports conclusions drawn from the above

By analyzing the resourcing of American armed conflicts utilizing a limited number of quantifiable variables (internal and external taxes, loans, fiscal policy, monetary policy, and debt policy for example), and a series of other political, strategic, military, and economic factors, can an argument be made that the United States possesses a “strategic resourcing culture” when it comes to national security and has this contributed to “an American way of war”? The answer to these questions is yes, although the relative mix of war financing and resourcing techniques varies from administration to administration historically subject to differing political, economic, and military philosophies and other geopolitical factors.

Moreover, I argue that there have been three distinct stages of American war financing: individual financiers (the Revolution to the War of 1812); investment banks, domestic, and foreign financial markets (the Mexican-American War through the Spanish-American War); and government public finance, specifically the use of income taxes, the printing press and supplemental funding (World War One to the present).



Adopting this analytical approach allows for direct comparison between the conflict finance and resource management approaches of different administrations and the establishment of a theory of U.S. strategic financial culture. In addition, the theory can be used in a predictive manner as well. For example, such a model provides a basis of comparison between the geopolitical, military, economic, and financial factors colonial America faced in its relations with Great Britain and the U.S.'s current relationship with the Peoples Republic of China (a major trading partner with a dominant or resurgent military capability conceivably posing a threat to American independence or national security interests), giving U.S. decision makers some historical perspective in future policy formulation.

With this analytic framework in mind, the book explores why various U.S. administrations chose the war resource management options they did and how these different choices were influenced by the political, strategic, operational, economic, and financial environments at the time. It does so by incorporating existing analytical models encompassing a wide variety of disciplines such as politics, classical military theory, and political economy, utilizing the “ends, ways, and means” analytical framework developed by the U.S. Army War College. At the end of each chapter, I then answer three specific questions regarding ends, ways and means and whether the combatants were successful in achieving their desired objectives.<sup>10</sup>

An important caveat: while the manuscript takes a best of breed approach in integrating the models that have been developed in each of these areas, it has been developed as a survey level textbook. I am not a politician, career military officer or an economist; to that end, the underlying philosophy of the book is based on an old saying senior American non-commissioned officers have about junior officers—“they are knowledgeable enough to be dangerous”. In other words, while I possess some level of expertise in politics, strategy and operations, economics, and the financial markets, there is no detailed analysis of American political history, Clausewitz's thoughts, the mechanics behind the economics of national security, or specific schools of thought on fiscal, monetary and debt policy. While these subjects are referenced in the text, the reader desiring additional information on a specific subject matter will be directed to the appropriate detailed source.

In order to properly map, analyze and support this thesis, this book is divided into six chapters. With the exception of chapter one (Defining U.S. Strategic Resourcing Culture), each chapter relating to an American conflict is further subdivided into three sections: a pre-war analysis using

the strategic resourcing cultural model outlined above, a side by side chronological recounting of the important political, military, and resource management (economic and financial) events during the conflict in order to assess how political and operational factors impacted war time finance and supply actions; and finally, an analysis of how the post war strategic resourcing culture changed in both the short and long term. The book concludes with a series of recommendations for future defense planning efforts, in particular, a new long range planning structure based on the current U.S. National Security Council (NSC), many of which have been outlined by other subject matter experts in the field. This model is outlined in chapter one.

The narrative concludes by answering the question “Does the United States possess a strategic resourcing culture in resourcing its armed conflicts and has this led to “an American way of war”? I believe it has although there is a strong argument to be made that this culture and its impact on American policy, strategy and military operations has and will continue to undergo a radical shift as the nature of threats and the impact of resource constraints evolve over time.

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## NOTES

1. Julian Corbett. *Some Principles of Maritime Strategy*, (Mineola, NY: Dover Publications, 2012), 102.
2. Hans Delbruck, *History of the Art of War, Vol. I-IV*, (Lincoln, NE: University of Nebraska Press, 1997).
3. Russell Weigley, *An American Way of War*, (Bloomington, IN: University of Indiana Press, 1977).
4. Brian McAllister Linn, “The American Way of War Revisited”, *Journal of Military History*, vol. 66, no.2, (2002), 501–530.
5. John Lynn. “Rally Once Again”, *The Military History Foundation*, <http://www.militaryhistoryfoundation.org/resources/lynn.html>, accessed February 4th, 2015.
6. Charles and Mary Beard, *The History of the United States*, (New York: MacMillan, 1921).

7. Chester Wright. "The More Enduring Economic Consequences of America's Wars.", *The Journal of Economic History* 3.S1 (1943): 9–26.
8. Herman Krooss and Paul Studenski. *Financial History of the United States*, (Washington D.C.: Beard Books, 2003), 436–458.
9. Jonathan Kirshner. *Appeasing Bankers: Financial Caution on the Road to War*, (Princeton N.J.: Princeton University Press, 2007), 1–30.
10. Harry Yarger, *Toward a Theory of Strategy: Art Lykke and The U.S. Army War College Strategy Model* in the U.S. Army War College Guide to National Security Issues, Vol. I: Theory of War and Strategy, 3rd Edition, (Carlisle, PA: U.S. Army Strategic Studies Institute, 2008), 45.

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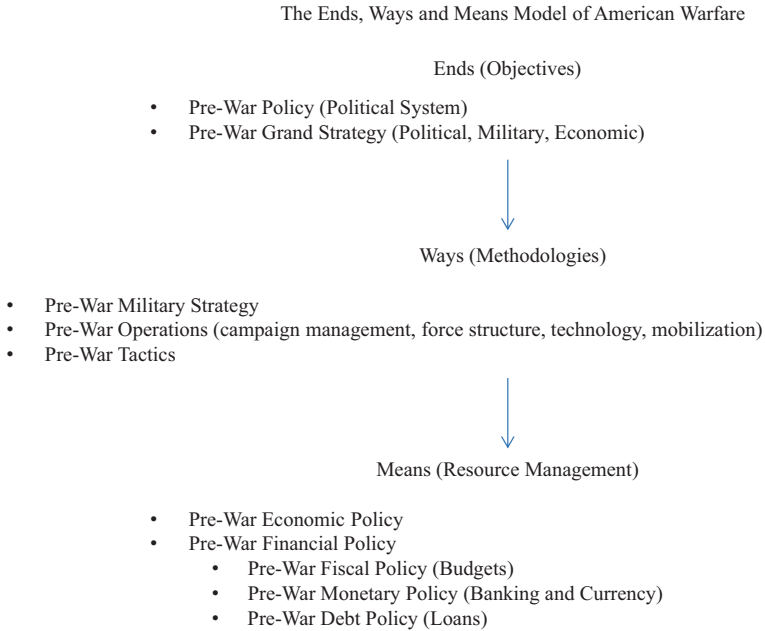


## Defining U.S. Strategic Resourcing Culture

Figure 1.1 outlines one particular methodology of assessing the relative importance of the political, military, economic, and financial factors impacting the conduct of an armed conflict, a concept I call “U.S. Strategic Resourcing Culture.” To that end, it employs the U.S. Army War College’s three level model ends (objectives), ways (methods), and means (resource management) paradigm while also acting as the organizational guide for each of the following chapters.<sup>1</sup> Before beginning, it is important to note that strategic resourcing culture is an output of American wars as opposed to an input. In other words, economic and financial factors, while important in waging war, historically did not dictate how the United States would conduct an armed conflict but rather were byproducts of that process. Nonetheless, how a war was fought could and did have important financial and economic implications, particularly following the conclusion of a conflict. These would include fiscal (significant deficits), monetary (suspension of the gold standard), and debt issues (repayment of loans), for example.

### U.S. STRATEGIC RESOURCING CULTURE

Now before readers conclude I am blithely assuming a linear relationship between ends, ways, and means, nothing could be further from the truth. As noted French military theorist General Andre Beaufre observed, differ-



**Fig. 1.1** The ends, ways, and means model of American warfare

ent approaches may be utilized when it comes to mating ends and means (ways are a peculiar and recent British and American invention):

1. *Ends Limited, Means Abundant*—when resources are abundant, the mere threat of force may be sufficient to satisfy objectives, if vital enemy interests are not imperiled.
2. *Ends and Means Both Limited*—when available resources are inadequate to create a credible threat or the enemy deterrent is discouraging, political, economic, or psychological pressures may supplant force successfully, provided the goal is modest or appears to be. This ploy is most suitable when military freedom of action is cramped.
3. *Ends Critical, Means Limited*—when objectives are critical, but resources are limited and freedom of action is abridged, piecemeal actions that combine direct and indirect pressures with controlled military force may be effective. This approach favors those that are in a strong defensive position and are content to proceed slowly.

4. *Ends of Variable Consequence, Means Minimal*—when freedom of action is great but the means are insufficient to secure a decision, protracted struggle at a low level may suffice. This gambit demands strong motivation, great moral endurance, and highly developed national solidarity. It has been displayed to advantage in revolutionary wars, where the issues at stake were far greater importance to one side than the other.
5. *Ends Critical, Means Decisive*—when the objectives are vital and military resources are strong, complete victory on the battlefield is feasible. Destroying enemy armed forces may suffice, even if enemy interests are vital, although hostile territory sometimes must be occupied. Unfortunately, if victory is not rapid, costly stalemate may produce decisions “only after a prolonged period of mutual attrition out of all proportion to the issue at stake.”<sup>2</sup>

Before moving into a discussion of the relevant factors impacting a strategic resourcing culture mode, it would be helpful to briefly review the various types of wars that have been fought since the beginning of time; these conflicts may be further classified as limited (wars of attrition) and unlimited (wars of annihilation) (Fig. 1.2).

As we shall see in the ensuing chapters, the United States has engaged in nearly every type of war throughout its history. Some, like the world wars, have been waged with annihilation in mind; others, like Korea and Vietnam, were conflicts of attrition. However, war was a staple of Europe, Asia, and Africa long before the United States was founded. The age of modern war began with the European experience of armed conflict beginning in the fourteenth and fifteenth century. These conflicts were largely based on mercenary armed forces, moving on to the religious wars of

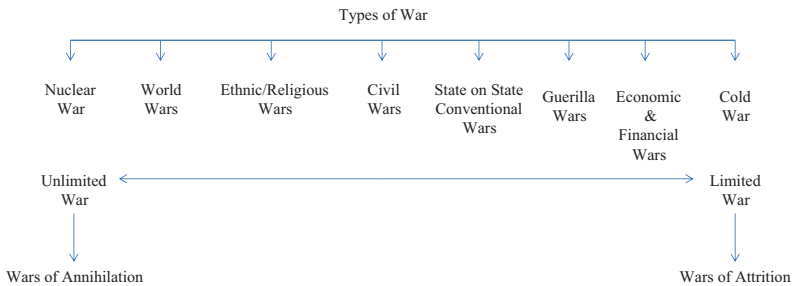


Fig. 1.2 Types of war

the seventeenth century, and concluding with the wars of the twenty-first century.

Why do nations wage war upon each other? Clausewitz describes war as an “extension of policy (politics)”<sup>3</sup> as opposed to an autonomous act. In the words of the late strategist, Michael Handel, to conduct war in a coherent manner, the following conditions must exist:

- A meticulous correlation of ends and means
- Identification of a strategic and/or operational center of gravity
- Offensive action reaches a culminating point of victory after which further action becomes counterproductive
- Avoiding a war with more than one major enemy at a time
- All other things being equal, a shorter decisive war is preferable to a war of attrition
- The support of the people should be mobilized and maintained throughout the war<sup>4</sup>

How then does one begin to think about the concept of “strategic culture?” The concept of strategic culture traces its roots back to a seminal article on the topic written by RAND (Research and National Defense) Political Scientist Jack L. Snyder in September, 1977. Analyzing the development of Soviet and American nuclear doctrine, he hypothesized that “the Soviet Union exhibited and preference for the preemptive offensive use of force based on historical Russian fears of insecurity and authoritarian control.”<sup>5</sup> Snyder’s observations set the stage for an entirely new avenue of academic pursuit although one not without controversy as more and more disciplines contributed to the ongoing discussion.

With this statement in mind, how does one identify the most important beliefs that might influence that culture? One practitioner cites two reasons why it is worthwhile to examine culture on multiple levels in order to make some determination of how this culture might be impacted, particularly when it comes to questions of national security; first, military institutions generally reflect the societies that they defend although it cannot be assumed they will mirror each other at all times and secondly, there is a tension between the government, the people, and the military, a point Clausewitz devotes considerable time to in *On War*.<sup>6</sup>

In the end, one must come up with some definition of strategic culture in order to begin analyzing it. While there are many such definitions, I choose to use the following:

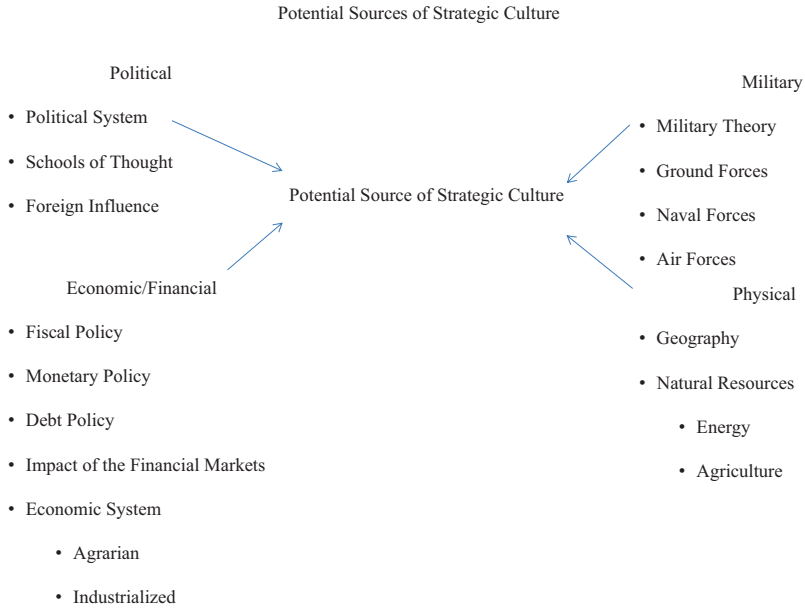
“Strategic culture is that set of beliefs, assumptions and modes of behavior, derived from common experiences and accepted narratives (both oral and written) that shape collective identity and relationships to other groups, and which determine appropriate ends and means for achieving security objectives.”<sup>7</sup>

With a definition in place, it is important to cite a caveat here before moving on to the process of analyzing potential factors affecting the development of strategic culture. This is not a study of the various disciplines associated with strategic culture for one simple reason; most of the research work done has been in conjunction with weapons of mass destruction in mind. Moreover, given the substantial number of academic disciplines now involved in the study of strategic culture, there are a virtually endless number of variables that could be used to model the concept. To that end, this book seeks to lay a foundation for the concept of a “strategic resourcing culture” by utilizing some sources of qualitative cultural characteristics while relying on quantitative measures as well such as the Historical Statistics of the United States, the Annual Reports of the Secretary of the Treasury and the Federal Reserve Board of Governors, and other relevant government documents.

With that caveat in place, what are some of the potential sources of strategic culture? As noted above, while there are many factors that can and do impact the role of culture in national security, the following are a representative list of those factors, all of which will be examined in later chapters (Fig. 1.3).

It is important to note however that not all political scientists and historians are on board with the concept of strategic culture. Despite these reservations, I argue that culture has and continues to play a role in American military history and national security policy. To that end, does the United States possess a strategic culture? At least one political scientist argues that both geography and history have shaped American strategic culture.<sup>8</sup> The United States insular geographic position and weak neighbors has largely shielded it from aggressive foreign military action, although as we shall see later in later chapters, this might not necessarily be the case in the future. The impact of 9/11 and an increasing emphasis on economic and financial warfare in a cyber-environment by and large have negated traditional geographic advantages.

Moreover, while war is considered to be a deviation from the “norm of peace,” the United States has not hesitated to employ military force



**Fig. 1.3** Potential sources of strategic culture

beginning with the Revolution up until the present time. This willingness to use force greatly impacted the national security outlook of America, particularly following World War Two, when for the first time in the country's history, the United States did not stand down its military forces raised for the purpose of the conflict and instead employed a policy of forward engagement marked by the deployment of ground, naval, and air forces across the world. Once again, it remains to be seen whether this policy will remain in place as the nature of the threat changes. The key question then becomes "in an era of strained resources, how does the United States meet the "means" test of strategy?"

## U.S. POLITICAL–MILITARY CULTURE

### *Classical Military Theorists*

The timeline of military history is filled with a distinguished list of observers on the trends of their day, too many to include in a book of this length.

With that caveat in mind, and given the purpose of this manuscript focuses on the third leg of the traditional ends (political policy), ways (military and operational strategy), and means (resource management) strategic paradigm, attention is directed to just a few prominent military theorists specializing in continental (land), maritime (sea), aerospace (air) and revolutionary warfare, who arguably have had the most influence on the American military psyche and their relative impact on how war has been resourced historically. However, keeping in mind this is not intended as a book on military strategy, the ideas of these philosophers will be mentioned only in passing at relevant points in the manuscript.

### *The Continental Theorists*

#### *Carl Von Clausewitz*

Clausewitz's "On War," posthumously published by his wife in 1834 following his death, is arguably regarded by many as the most complete thinking on the concept of war. "On War" built upon Clausewitz's experiences in the Napoleonic Wars and details his thoughts, sometimes very insightful and at others, very confusing. For example, his references to the concepts of "the center of gravity," "the fog of war," and "friction" reflect an understanding of the fact that battles and wars cannot be reduced to a set of rules; moreover, he differentiated between the strategies employed when waging limited versus unlimited war. Much ink has been spilled dissecting "On War" for further insight into these and other ideas he discusses; for the purposes of this book, it is important to note that Clausewitz only briefly touches upon the subject of war related resource management (Ten pages out of a total of over 560 in the book).

He acknowledges that supply has become a more important part in modern warfare for two reasons: Armies were now much larger and due to the changing nature of war were required to remain in the field for longer periods of time. Clausewitz cites a number of different methods to be utilized in such a situation to include living off the community; supply requisitions to be carried out by the troops themselves, by force if necessary; regular requisitions carried out in cooperation with the local authorities; and subsistence by depots, which by definition will decrease the amount of available funds for the armament and size of the army. Moreover, he also cites the difference in resource management when

operating on the defense versus the offense. Defenders (given enough warning) can stockpile supplies in advance, while the attacker has to leave his behind, a situation exacerbated when lines of communication become overstretched.<sup>9</sup> But these observations are operational or tactical in nature. His failure to address resource management issues at a strategic level in more detail is one of the more puzzling omissions of “On War.” While I will not seek to address the numerous nuances in “On War” to any great degree, I will occasionally address some of Clausewitz’s basic principles such as the “center of gravity.”

### *Antoine Jomini*

Jomini, like Clausewitz, was a veteran of the Napoleonic campaigns. Perhaps the greatest difference between Jomini and Clausewitz lay in the fact that it would be that

“Jomini’s life work (was) to divorce Western theories of warfare, so strongly shaped by the Napoleonic experience, from the actual historical situations in which these theories operate. In the name of making warfare scientific, he reduced its study to a preoccupation with “strategy” – a set of prescriptive techniques for military analysis and planning that has continued to dominate thinking on the subject, and he did it by effectively by breaking the obvious link between Napoleon and the French Revolution.”<sup>10</sup>

In other words, Jomini believed that, unlike Clausewitz, rules could be applied to warfare. This debate has raged ever since Jomini published “The Art of War” in 1838. To that end, my reading of Jomini is that the “Art of War” is more a description of operational art as defined by the U.S. Army War College as opposed to strategy. Having said this, to his credit and unlike Clausewitz, he addressed the issue of financial strength and its relation to modern warfare:

“The financial condition is to be weighed among the chances of a war ... A power might overrun with gold and still defend itself very badly. History, indeed, proves that the richest nation is neither the strongest nor the happiest. Iron weighs as much as gold in the scales of military strength. Still we must admit that a happy combination of wise military institutions, of patriotism, of well-regulated finances, of internal wealth and public credit, imparts to a nation the greatest strength and makes it possible and makes it best capable of sustaining a long war.”<sup>11</sup>



### *The Maritime Theorists*

Alfred Thayer Mahan was the son of a noted strategist from West Point, Dennis Hart Mahan. After graduating from the U.S. Naval Academy, he participated in the Civil War as a Union officer. After serving at sea for approximately twenty years following the war, he turned his hand to the study of naval history. His book *The Influence of Sea Power on History: 1660–1783* dealt with two main subjects: the relationship between naval power, economic development, and international relations (naval grand strategy) and naval operations in war (the art and science of naval command).<sup>12</sup>

Before moving onto Mahan's theories, it is important to note the difference between sea power and naval power. Sea power "was the combination of the activities of world trade generated by an international economy and world trade-defense by a national navy or transnational naval consortium." Naval power on the other hand "was organized force created by particular governments – in other words, a subset of sea power."<sup>13</sup>

Naval grand strategy in Mahan's words provided the rationale for a navy to exist:

"Home trade is "but a part of the business of a country bordering on the sea...the ships that sail to and fro must be followed by the protection of their country throughout the voyage...the necessity of a navy springs therefore from the existence of a peaceful shipping and disappears with it, except in the case of a nation with aggressive tendencies, and keeps up a navy a branch of the military establishment."<sup>14</sup>

In order to achieve this domination, strict adherence to a set of maritime tactics, modeled after Jomini's theories of land warfare, was paramount. These objectives included the following:

- Establishment of a true objective
- Points of concentration
- Establishment of depots and coaling stations
- Maintenance of communications between depots and home base
- The military value of commerce destroying as a decisive or secondary operation of war<sup>15</sup>

In terms of naval power, Mahan advocated the acquisition of a modern battle fleet composed of armored battleships; he believed the primary mission of a battle fleet is to engage the enemy's fleet. Only by seeking

out and engaging the enemy fleet offensively both on a strategic and tactical basis could a country claim the command of the sea.<sup>16</sup> Moreover, Mahan believed that sea power alone would be sufficient to win a war.<sup>17</sup> However, somewhat ironically, he opposed a large build-up of U.S. naval power based on the increasing costs to build out a large steam powered fleet. He also did not believe in falling in love with technology for technology's sake and was also concerned with corruption in the defense industrial base.<sup>18</sup>

At the heart of Mahan's thought process were the following six principles affecting sea power<sup>19</sup>:

- Geographic position
- Physical confirmation
- Extent of territory
- Number of population
- National character
- Character and policy of government

Using these principles as a starting point, Mahan focused on the role the Royal Navy played in the European balance of power as it related to trade. Britain's position as an island nation, the country's inclination for colonial expansion, and the natural attraction the British had for the sea all played a role in the UK's domination of the sea. Other European governments by contrast chose to focus on continental Europe at the cost of ignoring the growth in British sea power.<sup>20</sup>

But there were also inconsistencies in Mahan's theory of sea power. First, the influence of sea power does not account for the rise non-naval powers such as Russia, the Ottoman Empire, the Austro-Hungarian Empire, and the emergence of a unified German state under Bismarck. Moreover, while victories at sea over France were important, more critical were coalition land operations in Europe. Mahan also ignored the diplomatic successes enjoyed by the British in cobbling together these coalitions to begin with. Finally, the defeat of the British at Yorktown in 1783 was due more to the fact that, for the only time during the five wars fought between France and Great Britain beginning with the War of the Spanish Succession to the Napoleonic conflicts, France was not waging war on the continent at the same time.<sup>21</sup>

Mahan also failed to consider the possibility of power projection from the sea, such as the utilization of amphibious infantry and naval gunfire

support to those forces once ashore. In general, he neglected assessing the joint interdependence of land and naval forces, arguing, navies made better instruments of policy given their less threatening intent when “showing the flag.”<sup>22</sup>

### *Julian Corbett*

Julian Corbett was a civilian British naval historian whose book *Some Principles of Maritime Strategy* played a prominent role in the Royal Navy reforms of the late nineteenth and early twentieth centuries. Whereas Mahan followed the ideas of Jomini closely, Corbett did the same with Clausewitz’s theory. His Napoleonic Idea—four distinct ideas about war—mirrored Clausewitz’s theory of war. They included offensive (positive) versus defensive (negative) strategy; defense is the stronger form of war; strategic offensive versus tactical defensive; and limited versus unlimited forms of war.<sup>23</sup>

Corbett defined naval strategy as

“that part of it which determines the movement of the fleet when maritime strategy has determined what part the fleet must play in relation to the action of the land forces; for it scarcely need saying that a war can be decided by naval action alone... since men live on the land and not upon the sea, great issues between nations have always been decided – except in the rarest cases – either by what your army can do against your enemy’s territory and national life or else by fear of what the fleet makes possible for your army to do.”<sup>24</sup>

He also disagreed with Mahan’s theory about command of the sea; he believed that you could not conquer the sea because it is not susceptible to “ownership,” at least outside of territorial waters. Moreover, you cannot sustain your armed forces upon it as you can on enemy territory.<sup>25</sup>

In Corbett’s opinion, there was a fundamental difference between land and naval warfare:

“Land warfare is about the control of territory – economic pressure only occurs through victory or acquired domination (dimension of time). Military communications refer solely to the army’s line of supply and retreat. Naval warfare is about the control of maritime communications (external lines of military communications and internal lines of communication “by which the flow of national life is maintained ashore.”<sup>26</sup>

In other words, while a decisive battle would be welcomed, a country does not need it to command the sea. If a country can control the choke points, much as the Royal Navy had been able to accomplish, and establish overseas bases, this would imply command of the sea. However, Corbett believed the concept of economic pressure was justified on the grounds that “it is commerce and finance which now more than ever that control the foreign policy of nations.”<sup>27</sup>

In sum, Corbett took a much wider viewpoint on naval warfare than did Mahan, noting that

“War being, as it is, a complex sum of naval, military, political, financial, and moral factors, its actuality can seldom offer to a naval staff a clean slate on which strategical problems can be solved by well-turned syllogisms. The naval factor can never ignore the others.”<sup>28</sup>

### *The Aerospace Theorists*

Throughout history, especially in continental Europe, war had a detrimental effect on civilian populations. However, following the Napoleonic Wars, a long period of peace settled in over Europe. While the wars of German unification in the mid to late nineteenth century impacted continental Europe, these effects were relatively benign compared to earlier conflicts. With the advent of World War One, continental Europe found itself once again subject to the ravages of sea and especially land forces.

However, a new element was about to be added to the mix: air power. The development of air power took two forms: tactical (battlefield) and strategic (home front). While the tactical battle left the civilian population largely untouched, the advent of strategic air warfare, while limited during World War One, had serious implications for World War Two. The entire population of an enemy country, with the exception of the United States (Pearl Harbor notwithstanding), now came under direct threat from enemy air power. This threat took two forms: destruction of both the enemy economy and his will to fight. Strategic air power also presaged the development and deployment of the ultimate threat against civilian populations: nuclear weapons. The main proponent of this viewpoint was an Italian army officer who looked to the airplane as the weapon of choice that could break the sort of stalemate on the ground that characterized World War One.

*Giulio Douhet*

Giulio Douhet was originally commissioned as an artillery officer in the Italian army some twenty years before the advent of World War One. Douhet had served in Libya a few years before the beginning of the European conflict, where aircraft had been used for the first time against the Turks in a variety of roles. His experiences in both wars convinced him that land and naval forces alone could not deliver a decisive blow to end of a modern war. There was therefore in his opinion the need for an independent air force to reclaim offensive momentum based on the following rationale. Those in possession of such an independent capability would have the combat initiative by forcing the enemy to anticipate and react. Moreover, aircraft were relatively unconstrained from a mobility perspective when compared to land and sea forces, which were dependent on lines of communications, depots, and shore support facilities. Aircraft could also operate in a concentrated or disbursed manner, thus further complicating enemy defensive planning. Finally, air power could only be neutralized at its source since defensive measures such as anti-air craft systems and enemy air assets would not be able to react in time to an unforeseen attack.<sup>29</sup>

He went to argue that since armies and navies could operate independently, so could an air force; as such, those countries wishing to avail themselves of this new capability should shift resources to air assets at the expense of their ground and naval counterparts. Moreover, the use of air power in place of ground and naval forces provided economic advantages as well. Not only could aircraft target the enemy economy, it could do so with a relatively simple mix of weapons, specifically high explosives to destroy targets, incendiaries to burn out targets, and even poison gas to prevent emergency responders from dealing with the situation.<sup>30</sup>

To accomplish these tasks, Douhet advocated a new style of defense organization that was extraordinarily prescient in terms of his recommendations. First, he suggested that the armed forces be unified under a national command similar to the American Joint Chiefs of Staff (JCS). He followed this up with a second recommendation calling for a defense council and then a Ministry of Aeronautics, reflecting the current organizational structure of the U.S. Department of Defense (DOD). Finally, there should be a distinction between an independent air force and auxiliary aviation, whereby tactical operations in support of the army and navy (e.g., close air and artillery observation) should stay with those services while strategic missions would be carried out by an independent air force.

Civil aeronautics should administered separately by the state. In all three cases, resources would be allocated accordingly.<sup>31</sup>

Although Douhet became the prophet to every air force desiring independent status, his theory was not without its drawbacks. First, strategic bombing did not become the panacea that Douhet and his acolytes might have imagined. German war production actually increased during the heaviest years of bombing by the Allies (1943–1944) while the air campaigns over Southeast Asia only drove the North Vietnamese to the negotiating table late in the war. Moreover, a focus on strategic bombing during World War Two led to neglect of tactical air concepts by the U.S. Air Force, specifically provision of close air support to the ground and naval commander. While the U.S. Air Force eventually deployed the A-10 system in this role, these assets were relatively limited in number. As a result, the U.S. Navy developed its own carrier-based air arm, the Marine Corps retained control over its own aviation assets both fixed and rotary wing, while the Army embraced the helicopter both in combat and combat support roles such as medical evacuation.

### *The Revolutionary War Theorists*

#### *Mao Tse Tung*

Revolutionary warfare has been a staple of armed conflict going back centuries. However, its most illustrious practitioner is a relative newcomer to the scene. Born in 1893, Mao Tse Tung began his quest to unify China in 1927 when he led a small group of peasants against the Guomindang (GMD) landowners of Hunan Province. Eventually forced to flee to northwest China following defeat at the hands of Chiang Kai-Shek and the Nationalist forces (GMD), he continued the fight against Japanese invaders during World War Two, where he formulated his now famous principles of revolutionary warfare.

Mao's theory of revolutionary warfare had its roots philosophically in Sun Tzu's classic "The Art of War" and structurally in the Russian Revolution. There, Lenin had postulated the key was to strengthen the armed forces of the revolution, while at the same time weakening the government army, using the urban proletariat as its driving force. Mao quickly realized that the urban population and economic conditions of Soviet Russia did not exist in China; as such, he modified his strategy to match the conditions prevalent then in China such as its agrarian economy and

rural peasant population. In doing so, he waged a running battle against those in the Communist Party who “would shift the political and military emphasis from the rural villages to the cities, emphasize regional forces at the expense of the main army, from human motivation to military techniques, and finally, from warfare to political action.”<sup>32</sup> He also based his strategic philosophy, much like Clausewitz, on extensive analysis of history.

Realizing the impotence of the Chinese Communist Party (CCP) and its armed forces relative to Chiang Kai Shek’s Guomindang Party, not to mention the Japanese forces occupying a significant part of China, Mao formulated a series of principals designed to provide a road map by which an inferior military force could defeat a superior enemy. His first principle was that “war as a phenomenon was comprehensible.” To more fully understand this concept, he argued that “any kind of war would consist of three main elements: a particular set of organizations (the armed forces); a particular set of methods (the strategies and tactics for directing war); and a particular process (the particular form of social activity in which the opposing armed forces attack each other or defend themselves, employing strategy and tactics favorable to themselves and unfavorable to the enemy. Military-strategic thinking in essence was the study of the laws of a war situation as a whole).”<sup>33</sup>

His next principle stated “military capability shaped victory and defeat in an undisputable way.” Mao maintained that military capability was the starting point for military strategic thinking. As he defined it, “military capability was made up of almost all the particular sets of contradictions in war.”<sup>34</sup> Mao’s third principle stated “military capability altered according to the law of the unit of opposites.” Mao believed that everything in society was a unit of opposites intrinsic to military capability were inferiority and superiority. The historical record suggested that wars were usually fought under only two circumstances: an absolutely strong power battled an absolutely weak power; or a relatively strong power battled a relatively weak power.<sup>35</sup>

Mao’s fourth principle was directly borrowed from Sun Tzu, “know the enemy and know yourself and you can fight a hundred battles.”<sup>36</sup> His fifth principle stated “in striving for the final victory over a stronger enemy, one should insist on a protracted war strategy.”<sup>37</sup> Perhaps the most important of Mao’s principles was that “in striving for the final victory, one should insist on a protracted war strategy.” To accomplish these goals, Mao developed a three pronged strategy directly contradicting traditional Western military philosophy described above, while warning about an overreliance on material and technological factors in war.<sup>38</sup>

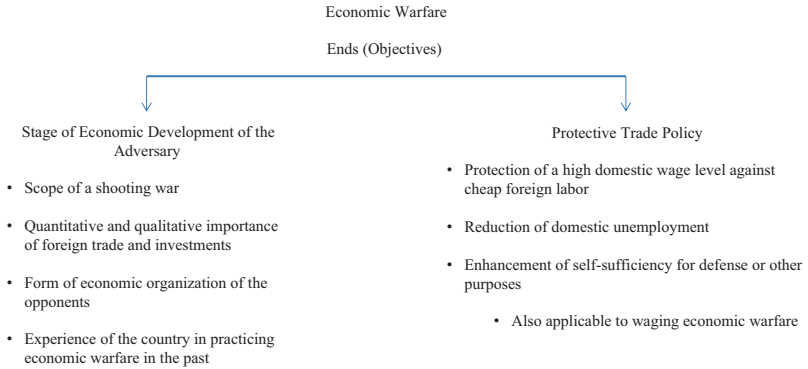
The adoption of this strategy meant passing through three separate and distinct stages, the first being “the enemy’s strategic offensive and our strategic defensive,” the second “the enemy’s strategic consolidation and our preparation for the counteroffensive,” and finally, “our strategic counteroffensive and the enemy’s strategic retreat.” In sum, he argued that for a weak army to win against a stronger one, it would have to engage in a war of annihilation and destroy one enemy unit in each battle; otherwise, the stronger army would eventually wear down the weaker through the application of superior resources. Despite this, he also believed in the “power of men over technology,” as one of the reasons why China intervened in the Korean War. China’s numerical advantage in manpower and its more recent combat experience against the American trained and equipped GMD during the Chinese Civil War led him to conclude (erroneously as it turned out) that the Peoples Liberation Army (PLA) could inflict a strategic and operational defeat on the United States during the Korean War.<sup>39</sup> In the west, as Clausewitz advocated, victory was to be achieved quickly through the seizure of territory, thus forcing the enemy to negotiate an unfavorable peace; for Mao, space and time were the critical factors.

In sum, Clausewitz advocated keeping military theory close to its empirical or observed roots; there was no point formulating a theory with no value in the “real world.” Jomini countered by arguing the key “was to close the gap between theory and practice”; scientific rules of engagement might be true but the most important consideration lay in the proper application of these rules. The aerospace analysts seemed to ignore Clausewitz and Jomini altogether while the naval strategists aligned themselves with one or the other. Finally, Mao argued that there was no gap between the theory and practice of revolutionary warfare (as long as the people only listened to him) (Figs. 1.4 and 1.5).<sup>40,41,42</sup>

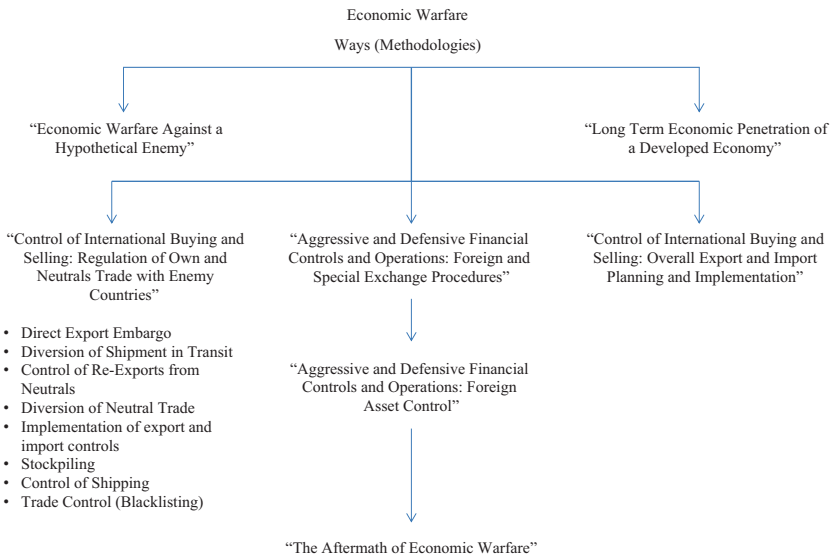
### *The Economic and Financial Warfare Theorists*

“For economic warfare, like every other form of warfare, does not aim at winning a war for its own sake. Wars are fought for certain purposes, and it is important to insure that methods used in winning them do not prevent the realization of these purposes. And although the essential purpose of the struggle may not completely cast aside, the methods used in defeating the enemy will inevitably leave their mark on the course of future events. To repeat, wars should not be won in a way to make the loss of peace an uncertainty, and if peace is rendered more trying as a result of certain aspects of the war effort, this should be fully realized in advance. All this is no less true for economic warfare.”<sup>43</sup>





**Fig. 1.4** Economic warfare ends (objectives)



**Fig. 1.5** Economic warfare ways (methodologies)

The use of economic and financial measures during wartime is an ancient phenomenon with a long history of success and failure. During the Peloponnesian War (431 BCE–404 BCE), Athens, under the direction of Pericles, withdrew behind the walls of the city after building a heavily defended passageway to the port of Piraeus, allowing the Athenians to continue to trade with its economic partners. In the meantime, the invading Spartans found themselves laying waste to an increasingly devastated countryside, dependent on a long and isolated supply line for resupply. Prior to the War of 1812, the Jefferson administration invoked an embargo against all of the European combatants involved in the Napoleonic Wars in a failed effort to halt the harassment of U.S. shipping and the seizure of American sailors. In World War One, the British developed a sophisticated plan of economic warfare aimed at the German economy; likewise, it was less than successful due to both legal and geographical obstacles. The United States engaged in economic warfare against the Japanese in World War Two, not only to obstruct the flow of war related commodities such as iron ore and oil, but also against Japan's major export, the silk trade, as well. Even today, there are suspicions that foreign countries conduct economic warfare against the United States through the use of technology theft (especially in militarily sensitive items) and ignorance of patents and other legal remedies designed to protect intellectual property. Despite this, unlike the continental, aerospace, and maritime theorists, no individual has ever established themselves in the same way pertaining to economic and financial warfare.

In any case, economic warfare may be defined along two paths, one narrow, the other more broadly. In the narrow sense, economic warfare “refers to all those economic measures which directly enhance a country’s relative strength – moreover, they are taken primarily but not exclusively during a military conflict in order to supplement other forms of warfare.”<sup>44</sup> In a broader definition, economic warfare “comprises all of those foreign economic policies that may have as their long run objective the enlargement a country’s sphere of influence. One must first decide whether it is possible to bring the country into one’s own economic orbit. (If not), then might it be possible to establish a stranglehold on some of the latter’s vital economic areas.”<sup>45</sup>

What might the methods might actually be employed through the use of economic warfare? First, one must distinguish between short- and long-term considerations. To this end, the figures above give the reader some sense of how an economic warfare program might be structured using an ends, ways, and means structure. Before implementing such a plan

though, a number of important factors must be considered, not the least of which is the problem presented by an ongoing shooting war. Attempting to wage economic warfare in the midst of an active military campaign can be difficult if not impossible, especially given a pre-war web of existing economic relationships between adversaries and neutrals. As Nicholas Lambert points out in *Planning Armageddon: British Economic Warfare and the First World War*, Great Britain, despite its economic prowess and the most powerful navy in the world, ran into grave difficulties in attempting to strangle the German economy due to these relationships, especially when it came to the United States, which eventually wound up financing the Allied war effort in addition to entering the war militarily.<sup>46</sup>

Another key consideration is the relationship between “the qualitative and quantitative importance of foreign trade and investments and economic warfare in relation to other forms of warfare and how these might influence the comparative usefulness of different methods of economic warfare.”<sup>47</sup> The American experience in the War of 1812 and the British experience in World War One have already been cited as examples of the difficulties these relationships can pose in a wartime environment. More recent examples include the sanctions program against Iran in response to that country’s continued efforts to develop a nuclear weapon; another is that of the Russian annexation of the Crimea. The United States responded by issuing sanctions not against Russia itself but rather against wealthy individuals who had publicly supported the move. The United States could afford to move ahead with such actions given the relatively weak economic relationship between the two countries; such was not the case with the European Union, which depended heavily on Russian gas imports.<sup>48</sup> The form of economic organization employed by opponents also presents problems when contemplating the use of economic warfare. While both China and Russia have adopted many of the same financial policies as their western counterparts, their respective political structures have not evolved to the same extent. Both countries continue to operate along many of the same lines they did when both were full-fledged communist countries. Finally, previous practical experience with economic warfare is important as well.<sup>49</sup>

The pursuit of an economic warfare agenda, like any other form of warfare, incurs its share of costs as well, to the practitioner, the target economy, and neutrals as well. The costs associated with the belligerents, based on their previous relationship, might cause significant damage to the enemy economy but not without a commensurate risk to one own economic structure. For example, the loss of raw materials or finished goods

supplied by the target economy might force one's domestic treasury to engage in the preemptive acquisition of strategic materials at inflated prices, a consequence of the "means" component of strategy.<sup>50</sup>

The risks to a neutral can be even greater. Being caught in the middle of an economic and perhaps a shooting war can affect a neutral in a myriad of ways. One key factor is to what extent is the neutral a debtor of any of the belligerents? Another key consideration is replacement risk; in other words, how might a particular neutral competitive position, especially one geographically exposed to one or more of the belligerents, be negatively impacted if its products can be replaced by other less threatened neutrals with similar capabilities? Finally, if a belligerent relationship is suspended or terminated, will this increase the neutral's dependence on trade with countries other than the belligerents?<sup>51</sup>

Moreover, opting for an economic war over traditional military action does not guarantee that a long and bloody conflict will be avoided. British journalist Norman Angell, in his 1909 book, *The Great Illusion*, argued that economic relationships in Europe at the time, particularly those between Great Britain and Germany, were so interdependent that war between the two would not be impossible but futile. Yet a mere five years later, the world's bloodiest conflict in history up until that time took the lives of tens of millions of military personnel in addition to a large number of civilians casualties as well. Where Angell erred in his thesis was to misunderstand perhaps Clausewitz's most important principle of armed conflict—that war is the result of policy or politics. In this case, the European alliance system, supplemented by the war mobilization plans developed by each country, trumped economic relationships.<sup>52</sup> In sum, economic warfare carries many of the same risks that a full-fledged armed conflict would with the exception of the bloodshed, although the damage would be manifested in other ways (Figs. 1.6, 1.7, and 1.8).<sup>53,54,55</sup>

### *Financial Warfare*

Financial warfare may be regarded as both related to and independent of the economic warfare concept. Certainly the measures outlined above are designed to regulate foreign exchange and debt obligations may manifest themselves as more financial than economic in nature but nonetheless are related to the concept of economic warfare. However, seizing enemy assets, whether domestically or abroad, comes with its own set of challenges, not the least of which is determining the status of the assets

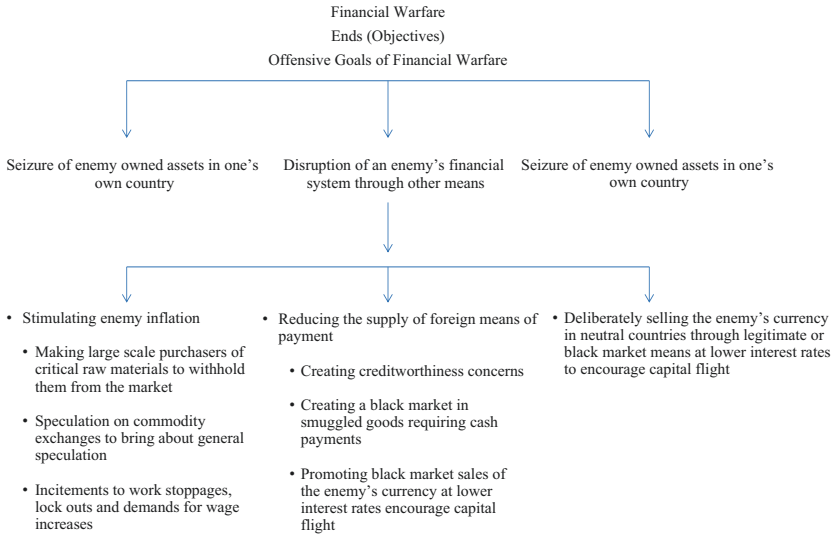


Fig. 1.6 Financial warfare ends (objectives)

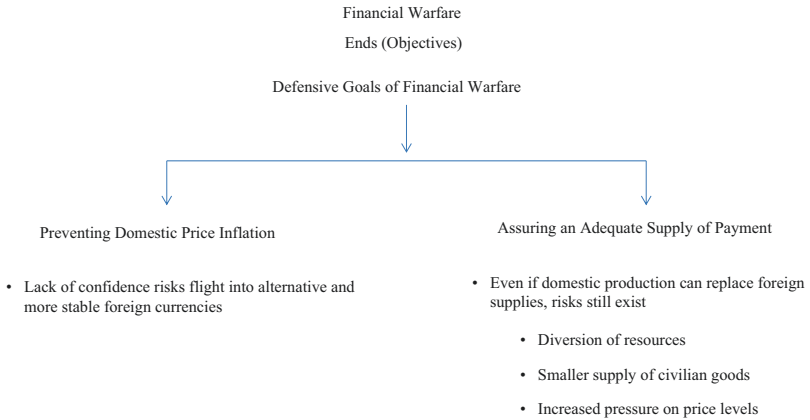
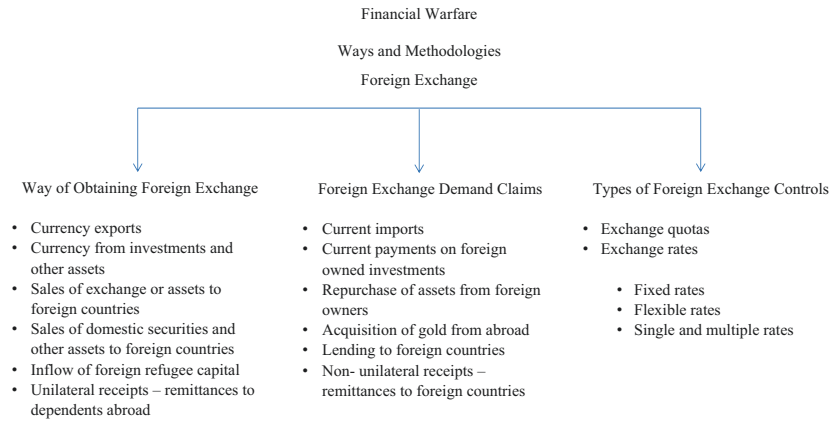


Fig. 1.7 Financial warfare ends (objectives)



**Fig. 1.8** Financial warfare ways and methodologies

themselves. These challenges include the types of assets, their ownership levels, and value that can usually only be determined by a census.<sup>56</sup>

Other tactics include the disruption of the enemy's financial system.<sup>57</sup> The interdependence of international financial systems along the simultaneous and related growth in electronic connectivity presents further challenges. For example, as of June, 2012, China held \$1.6 trillion worth of U.S. securities, 82% of which were U.S. federal government securities, making the country the second largest holder of these instruments behind Japan. Some argue that this leaves the United States open to financial disaster if the Chinese were to sell a large part of their holdings. However, there would be negative consequences for China as well, such as the potential damage to U.S. imports of Chinese goods, which in turn provide a measure of stability for the Chinese economy and the associated labor force, not to mention the certainty of much lower securities prices, once traders determined China was looking to sell large amounts of her U.S. investments.<sup>58</sup> This is not to say that a foreign government would shy away from such a policy; the United States Department of Defense (DOD) certainly does not think so.<sup>59</sup>

While economic sanctions can take months or even years to take effect, the near instantaneous nature of the international financial markets due to technological advances make it possible for a potential aggressor to cause serious damage within a very short period of time. But financial warfare can be used to the benefit of the United States as well. In his book, *The Treasury's War*, Juan Zarate outlines the broad and generally successful

measures taken by the Treasury in conjunction with other U.S. agencies to combat terrorist financing following 9/11, focusing in particular on wealthy financiers based in the Middle East. Stressing the advantages of having access to the U.S. financial system allowed American negotiators to make the case it was in the interests of foreign governments to regulate and if necessary, shut down this sort of activity, so as not to lose that entre.<sup>60</sup>

An equally important aspect of traditional financial warfare has been the control of foreign exchange without which an adversary cannot pay its war related bills. For nearly four centuries, the British pound had been the reserve currency of choice in the international financial system; World War One marked a turning point. In the end, the war cost some nine million soldiers their lives, wiping out an entire generation of young men, forever altering the political landscape of Europe, and setting the stage for an even more catastrophic conflict little more than twenty years later. Often lost in the horror of trench warfare however was the fact that the war also changed the worldwide economic and financial system as well. For in order to feed, clothe, and arm these massive armies, central bankers and defense ministries found themselves stretched to the limit. Not only was there an ongoing battle between the allies and the United States on how to finance their purchases, but a conflict every bit as fierce as those in the trenches of the western front took place between Great Britain and the United States over the future leadership of the world's financial system, a contest that would see New York permanently usurp the heretofore invincible domination of London in the international financial markets with implications that continue on up until today including the replacement of the pound by the dollar as the reserve currency of choice.<sup>61</sup>

While the principles outlined above have real utility within the context of the modern financial system, it is also important to remember that one of the older forms of economic and financial warfare is currency devaluation in order to make one's exports more competitive. In sum, some have argued "there is a complementary quality of trade and financial controls extends to both the aggressive and to the defensive aspects of economic warfare" whereby under certain circumstances, financial measures could replace trade controls.<sup>62</sup> What is interesting to note is that with a few exceptions (*On War*, Book V, Chaps. 14–15), Clausewitz, arguably regarded by many observers as the world's finest strategist, chose to overlook the importance of economics (to include finance) in warfare. The naval and air strategists by contrast, devote much of their time to

discussing the importance of trade and the rear area of the battlefield (the industrial base) and their relationship to the conduct of an armed conflict.

## PRINCIPLES OF U.S. POLITICAL THOUGHT

Walter Russell Mead argues that U.S. foreign policy has been strongly influenced by four competing schools of political thought: Hamiltonian Federalism, Jeffersonian Republicanism, Jacksonian Democracy, and Wilsonian Democracy as reflected in Fig. 1.9 and Table 1.1 reflects my own assessment of the political culture of specific wartime administrations, based on Mead's original observations.<sup>63</sup>

Hamiltonian Federalists “regard a strong alliance between the national government and big business as the key both to domestic stability and to effective action abroad, and they have long focused on the nation’s need to be integrated into the global economy on favorable terms.”<sup>64</sup> Jeffersonian Republicans “hold that American foreign policy should be less concerned about spreading democracy abroad than safeguarding it at home; they have been historically skeptical about Hamiltonian and Wilsonian policies that involve the United States with unsavory allies abroad or that increases the risks of war.”<sup>65</sup> Jacksonian Democrats “believe that the most important goal of the U.S. government in both foreign and domestic policy should be the physical security and economic well-being of the American

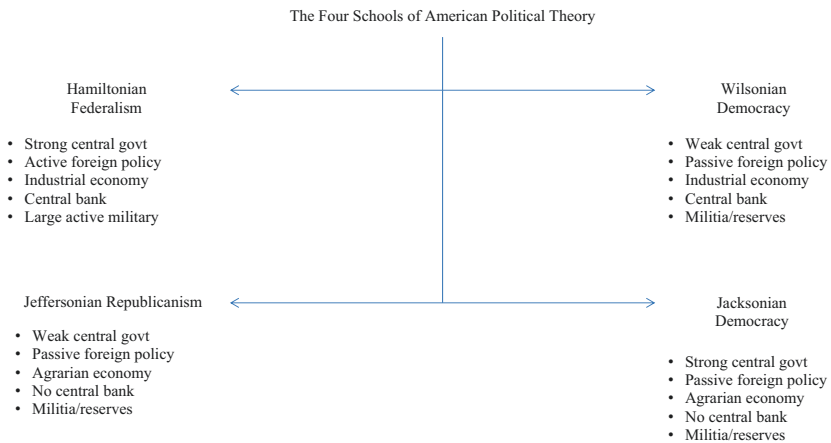


Fig. 1.9 The four schools of American political theory



**Table I.1**

<i>Administration</i>	<i>Conflict</i>	<i>Duration</i>	<i>Strong</i>		<i>Weak</i>		<i>Active</i>		<i>Weak</i>		<i>No</i>		<i>Large</i>		<i>Small</i>			
			<i>gont</i>	<i>gont</i>	<i>gont</i>	<i>gont</i>	<i>policy</i>	<i>policy</i>	<i>policy</i>	<i>policy</i>	<i>bank</i>	<i>bank</i>	<i>Active</i>	<i>Active</i>	<i>duty</i>	<i>duty</i>	<i>Militia/</i>	<i>reserve</i>
Washington	American Revolution	1776–1783	X		X		X				X							
Madison	War of 1812	1812–1816		X		X						X			X		X	
Buchanan	Mexican–American War	1846–1848	X				X					X			X		X	
Lincoln	Civil War	1861–1865	X					X					X					
McKinley	Spanish–American War	1898–1902		X				X				X			X		X	
Wilson	World War One	1914–1918		X				X					X		X		X	
Roosevelt	World War Two	1941–1945	X					X					X					
Truman	Korean War	1950–1953	X					X					X					
Johnson	Vietnam War	1965–1972	X					X					X					

people... Jacksonians believe that the United States should not seek out foreign quarrels but when other nations start war with the United States... there is no substitute for victory.”<sup>66</sup> Finally, Wilsonian Democrats “believe that the United States has a moral obligation and an important national interest in spreading American democratic and social values throughout the world, creating a peaceful international community that accepts the rule of law.”<sup>67</sup>

Underlying all of these schools of thought, however, is the concept of public support for armed conflict:

- American Revolution—taxation without representation
- War of 1812—impressment of American sailors
- Mexican–American War—manifest destiny
- Civil War—slavery
- Spanish–American War—suppression of Cuban independence and the destruction of the USS Maine
- World War One—unrestricted submarine warfare
- World War Two—Pearl Harbor
- Korean War—North Korean invasion
- Vietnam War—Gulf of Tonkin

### PRINCIPLES OF U.S. MILITARY CULTURE

Melding the concepts of expertise, responsibility, and corporateness, the duties of the modern military officer include “the organization, equipping and training of an armed force; the planning of its activities; and the direction of its operation in and out of combat.”<sup>68</sup> To that end, as is the case with the other inputs in this model, the culture of the American armed forces has been heavily influenced by European experience, particularly at the senior leadership level. As one historian noted “prior to 1800, there was no such thing as a professional officer corps. In 1900, such bodies existed in virtually all major countries.”<sup>69</sup> Before moving on to discuss the respective cultures of the U.S. armed forces, it is appropriate to briefly examine the development of military culture in Europe.

In Europe, the sixteenth to eighteenth centuries saw the development of the modern military force. Initially composed of mercenaries hired on short term, eventually these armed forces were, for a variety of reasons,

absorbed by the state during the kingly, territorial, and nation state periods. However, neither mercenary nor aristocratic leaders were military professionals within the strict sense of the word. For the mercenary, “it was a business”; for the aristocrat, “it was a hobby.”<sup>70</sup> Over time, European officer corps became increasingly professionalized although entry to their ranks depended largely on their birth status, wealth, and political stature, although this differed from country to country. The establishment of military and naval academies further fostered this professionalization; in addition to basic military education, officers were now afforded the opportunity to receive specialized training in such fields as engineering and artillery. By the nineteenth century, general staffs were commonplace in European armies and navies. In sum, the growth of professionalism in Europe resulted from four specific environmental conditions, all of which would later impact the development of American military culture, particularly along service lines. These include “the development of technology, the beginnings of industrialism and the rise of urbanism; the growth of the nation state; the rise of democratic ideals and parties; and the existence of a single recognized source of legitimate authority over the armed forces.”<sup>71</sup>

With this historical framework in mind, the U.S. military slowly evolved from essentially a frontier force nearly 250 years ago to the world’s most powerful armed forces today. In doing so, not only has the DOD developed a singular culture but so have the individual services. This has manifested itself across a wide variety of traits such as type of personnel and affinity for technology. Carl Builder attributes this evolution to the following factors:

- Institutions, while composed of many, ever-changing individuals have distinct and enduring personalities of their own that govern much of their power.
- The most powerful institutions in the American national security arena are the military services—the Army, Navy, Marine Corps, and Air Force—not the DOD or Congress or even their commander in chief, the president.
- To understand the distinct and enduring personalities of the Army, Navy, Marine Corps, and Air Force is to understand much that has happened and much that will happen in the American military and national security arena.<sup>72</sup>

Why discuss the cultural development of the U.S. armed forces relative to the resource management question? While many observers have focused on the ends and ways levels of the strategic paradigm, one of the key factors in this evolution has been in the area of means. Particularly, after World War Two with the passage of the National Security Act of 1947, which established an independent air force and the need to maintain a large active force in the face of perceived Soviet aggression, battles over doctrine manifested themselves in terms of budget share.

When evaluating a country's armed forces, a proper place to start is with roles and missions. At first glance, this would seem to be fairly easy to do. An Army conducts ground operations, a Navy operates at sea, an Air Force flies air operations, and Marines mount amphibious assaults. This was certainly the case during the evolution of military forces in Europe as well as the early formative years of the United States, when emphasis (and funding) largely went to the Army. Since World War Two, however, with the establishment of an independent air force, much has changed.

Thomas Mankhen argues that the Marine Corps and Air Force operate in a "monarchical" manner; that is to say senior leadership is drawn from a single subgroup. In the case of the Marines, despite their specific military occupational specialty (MOS) are essentially infantrymen at heart. This cultural bent, in turn, reinforces a strong service identity to the point where member of the Corps no longer on active duty do not refer to themselves "ex-Marines" but rather "former Marines." Likewise, the Air Force is dominated by its combat pilots. In the years following World War Two, with the development of strategic bombers, Air Force senior leadership was dominated by bomber pilots; more recently, chiefs of staff have been selected from the ranks of fighter pilots.<sup>73</sup> The Army and Navy by contrast are "feudal" in nature. Chiefs of staff are drawn from a variety of sub-groups and generally less powerful than their Marine or Air Force counterparts. The Army retains a strong branch identity within the combat arms community (infantry, armor, and artillery) while the Navy, traditionally dominated by surface warfare officers, has had a number of aviators and submariners ascend to the position of Chief of Naval Operations (CNO).<sup>74</sup>

From a cultural standpoint, the services also differ greatly in their respective approaches to historical legacies, concerns with "self-measurement," and technology. The Army, for example, treasures its deep roots within the citizenry, being willing to grow and shrink as needed to meet the nation's needs and is most confident of its institutional viability in the sense that

wars must be won on the ground with help of naval and air support. While advanced technologies are not shunned by any measure, the Army focuses on the human element.<sup>75</sup> The Navy by contrast is the service most wedded to historical tradition, in particular, independent command at sea. Unlike the Army, the Navy, with its focus on sea and air power, has been much more committed to technology, including nuclear power. The Air Force shares some traits with the Navy, including a focus on technology but less so to historical tradition, not surprising when one considers it was established as an independent service following World War Two. The U.S. Marine Corps stands alone from the other services on several fronts. While it shares the Army emphasis on the human element, the Corps prides itself on its self-dependency. The best illustration of this is the fact that the Marines own and operate their own infantry, armor, artillery, and aviation units while being the beneficiary of having naval assets at its disposal including two classes of amphibious assault ships (Landing Helicopter Assault—LHA and Landing Helicopter Dock—LHD).<sup>76</sup> These cultural differences have manifested themselves within the ends, ways, and means paradigm since the end of World War Two. In particular, the battle for “budget share” has dominated much of the conversation about current American strategy or the lack thereof. In any case, as we shall see in the ensuing chapters, these cultural differences have had significant implications for war resourcing.

## FUNDAMENTALS OF U.S. DEFENSE PLANNING

Formal American defense planning is a fairly recent phenomenon. Up until World War Two, such planning was generally done on an ad hoc basis, with each service developing specific independent war fighting strategies. From the American Revolution to World War One, defense planning was a hit and miss process, largely built around the traditional strategic paradigm of strategy (ends), ways (methods), and means (resource management).<sup>77</sup> This ad hoc approach changed as a result of a fundamental reorientation in post-war U.S. national security policy, specifically the decision to forward deploy large armed forces overseas for the first time in American history to counter the perceived Soviet threat. Moreover, it is important to note that the ends, ways, and means model is not analytically limited to high end strategy and operations. Just as a president must consider these elements at the strategic level, so too must to a second lieutenant leading a forty person platoon.

**Table 1.2**

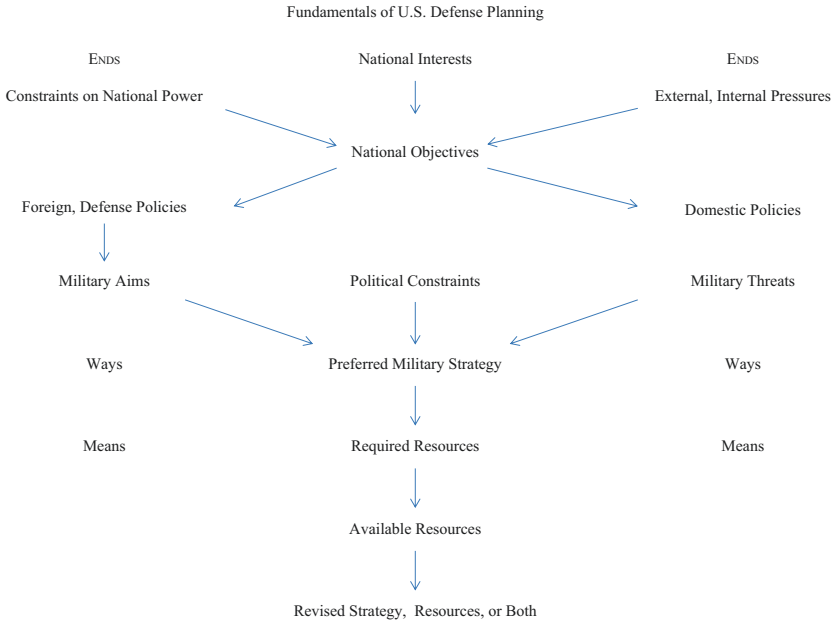
<i>House committees</i>	<i>Senate committees</i>
Budget	Budget
Authorization	Authorization
Armed Services	Armed Services
Foreign Affairs	Commerce, Science, and Transportation
Homeland Security	Foreign Relations
Intelligence	Homeland Security and Governmental Affairs
Science, Space, and Technology	
Appropriation	Appropriation
Defense	Defense
Homeland Security	Homeland Security
Military Construction and	Military Construction and Veterans Affairs
Veterans Affairs	State and Foreign Operations

While all financial budget proposals are initiated by the administration in power at the time, arguably the most important influence is that of the legislative branch. The table above details the major players in the congressional defense planning process but the table may actually understate those numbers. Over the past sixty years, the number of players in that process has expanded dramatically, particularly on Capitol Hill; an examination of the current committee structure shows a division between budget, authorization (policy—“ends and ways”), and appropriation (“means”) functions. More recently, this expansion has been driven by a crossover of military and commercial factors such as the explosion in Internet usage and the associated rise of cyber warfare, for example (Table 1.2).<sup>78</sup>

Nonetheless, the basic fundamentals of the U.S. defense planning process have remained relatively unchanged (as shown in Table 1.2).<sup>79</sup>

## U.S. POLITICAL ECONOMY OF WAR

Political economy is defined as “the theory or study of the role of public policy in influencing the economic and social welfare of a political unit.”<sup>80</sup> As such, political economy is the interplay between economics, law, and politics, and how institutions develop in different social and economic systems, such as capitalism, socialism, and communism within the context of how public policy is created and implemented. One of the most influential early treatises on the role of economics was the “Wealth of



**Fig. 1.10** Fundamentals of U.S. defense planning

Nations” by Adam Smith.<sup>81</sup> Smith spoke to the concept of mercantilism, the dominant economic philosophy of the British Empire. John Brewer defines mercantilism as “the protection and enhancement of national wealth by securing a favorable balance of trade.” To do so meant promoting exports, thus ensuring a British monopoly in the international carrying trade; limiting imports to protect domestic industry; encouraging the manufacture of import substitutes; large holdings of gold and silver; and finally, the general support of militarily important industries, a strong merchant marine, and associated naval personnel.<sup>82</sup> This is not to say that armed conflicts were not useful: “wars occurred “when nations estimated that the potential returns from conflict exceeded their costs.”<sup>83</sup> However, as Brewer noted

“Putting large armies into the field; clothing, feeding, and arming troops in different theaters of war; supplying and servicing the huge floating force of the (British) navy; all of these tasks placed an even more onerous burden on the fiscal resources and organizational powers of the state. The aggregate

numbers of those who served in the army, navy, and militia are therefore just the tip of the iceberg. Supporting the soldier in the field and the sailor on the high seas were a growing number of tax officials, government administrators, victuallers, and contractors, dockyard workers, armament manufacturers, commissaries, and paymasters.”<sup>84</sup>

As countries grew more prosperous during the era of the fiscal military state, their propensity to wage offensive wars became less meaningful, if for no other reason, wars cost money and had to be financed, usually through taxation. However, this prosperity was a double edged sword—while the inclination toward offensive war declined, vulnerability to less well-off aggressors increased, creating a need for strong defensive capabilities.<sup>85</sup>

In conclusion, given the shift from traditional symmetric warfare methods toward an asymmetric environment emblematic of an Afghanistan, it seems unlikely that economic capacity will play the role it has in the beginning of the twentieth century (the same cannot be said of financial warfare). Total war would imply the use of nuclear weapons while limited wars such as the United States has fought over the last decade or more lend themselves more to advance preparation. Sequestration will further negatively impact the defense industrial base, both in terms of production and personnel. In turn, this will force some hard choices on Pentagon decision makers, for example, choosing between force structure and equipment modernization.

### *Economics of National Security*

#### *The Perspective of Economics*

The basic rule of economics is in an environment of scarce resources, in order to secure a particular product or service, something else must be sacrificed in its place. National security is no different in this regard. Defense however is considered to be a “public good”; that is, no one is excluded from the benefits of this service and its availability is not reduced upon consumption. Nonetheless, there is a tangible and often high cost to devoting resources to national security. Determining that cost is critical to the options that may or may not be pursued in light of constrained resources.

#### *Economic Capacity and National Power*

Once a preferred military strategy has been adopted, choices regarding the amount and types of resources to devote to its implementation must be made; that is, what percentage of gross national product (GNP) is a



country willing to devote to this objective. One methodology for determining this calculation is a nation's economic potential for war or "EPW." EPW is defined simply as a "nation's economic potential (GNP) minus that portion of output which ought to be reserved for civilian usage."<sup>86</sup> EPW in this case is referring to a market or hybrid economy. But while a country may have an EPW, several questions remain regarding intent. For example, while a country may have a strong economy, can this capability be quickly converted into arms production? Second, if a country has the ability to produce war related material, does it possess the willingness do so, in other words, by reducing the resources otherwise intended for civilian production? Finally is the element of time—will the right amount of resources be available in time to positively affect the outcome of a conflict?<sup>87</sup>

Germany formally incorporated economics into its planning in both World Wars; in doing so, it pursued a "policy of armament in width," implying the use of forces and equipment already in use. An alternative approach would have been an "armament in depth" economic strategy that would have required massive investment in industrial capacity; such a strategy would have also entailed a large diversion of scarce resources into potential war production at the expense of the German civilian economy. The Schlieffen Plan in World War One and the reliance on a blitzkrieg strategy in World War Two reflected the adoption of this policy while implicitly acknowledging Germany's economic disadvantages relative to the Allies, resulting in the need for quick victories. World War One as a result quickly turned from a war of maneuver to one of attrition, leaving Germany vulnerable to the pressures of economic warfare, first by the British and then by the Americans, once the United States entered the war on the side of the allies. In World War Two, the Germans were initially successful and as a result of their military victories in Europe were able to at first withstand Allied economic pressure. However, the disastrous decision to invade Russia and the subsequent entrance of the United States into the war following Pearl Harbor made the final decision all but inevitable.

### *The Role of International Trade*

"The counterpart of global defense is global trade."<sup>88</sup>

What are the strategic implications of international trade? James Schelsinger argues there are two major advantages for engaging in international trade, one related to real income, the other to the availability

of important commodities. The first is that by participating in trade, “a nation may sharply raise its total and per capital income, and thus may provide that margin of resources which is essential to national power.”<sup>89</sup> Second, by furnishing a critical material, “trade may directly augment a nation’s power by providing the sinews of war.”<sup>90</sup> This second principle has been the heart of economic warfare for centuries. The dominance of the Royal Navy in the wars against France and later Germany and Japan’s strategic inferiority, due to the lack of raw materials such as rubber, iron ore, and oil in World War Two, are but a few examples of how international trade can affect national security. Today, China continues to engage in joint ventures with foreign commodity producers, to the point acquiring such properties outright, complemented by an aggressive naval build up reaffirming Mahan’s arguments about “the influence of sea power.”

### *Public Sector Financial Policy*

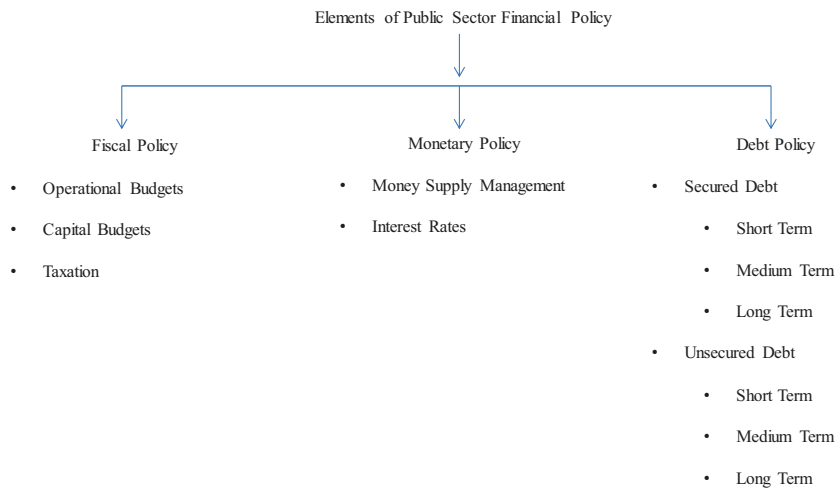
Public sector fiscal, monetary, and debt policies have been integral components in war related resource management; the question is how does a state utilize these policies during an armed conflict? As one economist put it:

“Outside of its own sphere of operations, the state is limited to attempting to *influence* the use of resources by private parties through its monetary and debt management policies and through the *structure* of its fiscal operations.”<sup>91</sup>

Niall Ferguson, in his book *The Cash Nexus: Money and Power in the New World, 1700–2000*, argued that the road to political, economic, and military power occurred as a result of the intersection of four related elements: establishment of a tax bureaucracy (fiscal policy), a central bank (monetary policy), national debt (debt policy), and parliament (political policy). A professional tax gathering governmental organization proved to be more efficient at revenue generation, such as that employed in Great Britain than the use of private tax farmers, as was the custom in France. The development of parliamentary institutions (at the expense of royal power in Great Britain) meant that tax payers were granted a political voice in the revenue generation process. A system of national debt gave a nation the ability to anticipate future revenue needs in the event of an unanticipated event such as a war, although given the propensity of European countries during this period to go to wars with each other virtually dictated that a

responsible approach to the situation. War finance, as pioneered by the Dutch, generally consisted of using taxes to cover the ordinary expense of the country while loans were utilized to cover the extraordinary expenses of a war. Utilizing this approach meant that the costs of a war could be spread out over time, allowing the “smoothing of taxation, which in turn would be required to repay the debts incurred as a result of borrowing for a war. Finally, the establishment of treasury departments and central banks allowed for control over debt and currency issuance (Fig. 1.11).<sup>92</sup>

Fiscal policy can be defined as the use of government policy and taxation to influence the economy; these policies are carried out by treasury departments.<sup>93</sup> Monetary policy can be defined as the actions of a central bank, currency board, or other regulatory committee that determine the size and rate of growth of the money supply, which, in turn, affects interest rates. Monetary policy is maintained through actions such as increasing the interest rate, or changing the amount of money banks need to keep in the vault (bank reserves). The other major concern of central banks is controlling inflation.<sup>94</sup> Finally, debt policy is defined as simply as the money owed by national and state governments that has been borrowed from financial institutions and individuals. This debt comprises two components—secured (backed by tangible assets) and unsecured—generally



**Fig. 1.11** Elements of public sector financial policy

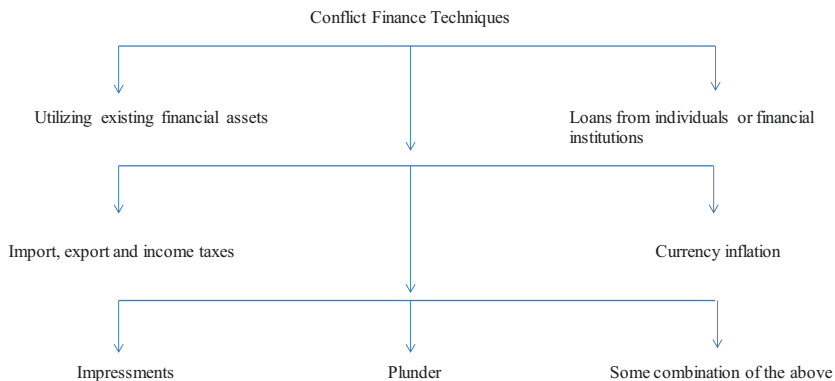
structured along three different levels based on the duration of each instrument (short, medium, and long term).

As we shall see, particularly beginning in World War One, there was often great tension between the U.S. Treasury and the Federal Reserve over interest rates and inflation. The Treasury wanted to keep interest rates low in order to finance the war more cheaply (pegging the rate). By contrast, the Federal Reserve would push for higher interest rates in order to restrain growth and thus control inflation. This battle would continue from the Federal Reserve's establishment in 1913 to the so called 1951 Treasury-Federal Reserve accord, which "eliminated the obligation of the Fed to monetize the debt of the Treasury at a fixed rate."<sup>95</sup>

### *Conflict Finance Techniques*

"The problem of war finance is to create a balance between taxation and borrowing which will divert the necessary purchasing to the government and at the same time control inflationary pressures, maintain production incentives, and create a basis for post-war adjustment."<sup>96</sup>

There are essentially seven ways to finance and resource an armed conflict (Fig. 1.12): (1) utilizing existing financial assets; (2) loans from individuals and financial institutions; (3) import, export, and income taxes; (4) currency inflation; (5) impressments; (6) plunder; and (7) some combination of the previous methods. Previously, in my discussion of the relation-



**Fig. 1.12** Conflict finance techniques

ship between economics and national security, I noted that economics is essentially the science of making choices based on the scarcity of resources. Financing a war likewise involves the diversion of resources by the transfer of monetary assets from the population at large to the government.

In the end, the financial costs of an armed conflict, no matter how initially resourced, are inevitably repaid through taxation. Having said that, as we shall see in the ensuing chapters, resistance to taxation was widespread in both Europe and the United States; this in turn played a major role in the development of more sophisticated capital markets to meet the needs of rulers and states. Over time, U.S. administrations chose different resource management combinations to suit their varied political, strategic and economic/financial approaches to warfare. Loans were the preferred option, when necessary, from the Revolution to the beginning of the twentieth century, although certain conflicts, such as the Mexican–American and Spanish–American wars were financed without resorting to large scale borrowing. Various types of taxes (income, corporate, excise, estate taxes, and tariffs) provided a steady stream of income to help cover these costs; however, during war, a general assumption was that this source of income would be negatively impacted. This was certainly the case during the War of 1812, for example, when the British employed a very effective naval blockade of American ports. World War One by contrast saw the use of the income tax as a major financing tool; the United States has generally financed its wars since then using the same method.<sup>97</sup>

Historically, borrowing has been the other major source of war financing. The key to a successful borrowing program will depend greatly on several factors. The most important of these is the credibility of the borrower. From King Louis XIV during the wars of the late seventeenth to early eighteenth century to the United States in the War of 1812 to the Confederacy during the Civil War, borrower credibility drove (and continues to drive today) the success or failure of a loan program. This issue of credibility directly impacts interest rates and the amount a country can borrow through the financial markets; as we shall see, the inability to borrow at reasonable rates and in sufficient quantity has in the past negatively affected political events, defense strategy, and even military operations.

In the end

“The problem of war finance is to create a balance between taxation and borrowing which will divert the necessary purchasing to the government and at the same time control inflationary pressures, maintain production

incentives, and create a basis for post war adjustment. To attain these ends, the tax policy should be aimed at the taxation of surplus incomes and the borrowing policy should be directed towards non-inflationary borrowing. If these policies are carried out successfully, the post war readjustment should present a minimum of problems.”<sup>98</sup>

### *U.S. Mobilization Policy*

Paul Koistinen in his epic five volume history of U.S. economic war mobilization efforts posits there are three distinct periods of evolution in this process, all of which are impacted by economic, political, military, and related technology developments. The first, the pre-industrial age, covers the period between the American Revolution and the end of the Napoleonic Wars. The second, the transitional era, deals with the time frame between 1815 and 1865, the end of the American Civil War. Finally, the third describes the present age of industrial warfare. He then analyzes each period within the context of four factors: the prevailing economic, political, and military system and the state of military technology; I utilize this approach in the succeeding chapters.

### *The Defense Industry and the U.S. Economy*

Earlier, the concept of a country’s economic potential for war or EPW was discussed. Some readers might have construed EPW as being synonymous with the concept of a mobilization base (MB). However, the MB differs from an EPW in three important ways. First, the MB concept concerns itself with capacity in strategic industries, whereas an EPW covers capacity issues in general. Second, essential civilian production is viewed as strategic in nature as opposed to a diversion of resources from war related economic activity. Finally, the MB presupposes upfront readiness or rapid convertibility to wartime production.<sup>99</sup>

Moreover, while economic superiority has traditionally been advantageous in a wartime environment, by no means does this imply certain victory. Often, economic superiority has been countered by offsetting advantages elsewhere. Napoleon, despite British naval and economic dominance, fought a European conflict for over twenty years before being overwhelmed, based on superior operational and tactical approaches. Nazi Germany likewise lasted five years while under severe Allied air pressure, even increasing its rate of economic production late in the war. The more complex the economy, the more vulnerable it is to internal or external

disruption. The 9/11 attacks, while arguably not strategic effective, were so operationally in the sense that the American economy was, if only temporarily, taken off course.<sup>100</sup>

There are also costs associated with the maintenance of a MB. For example, in an ideal situation, the MB would consist of dual purpose facilities; that is, plant and equipment utilized in both a peace and wartime environment. However, since the end of World War Two, American defense planning largely focused on a “come as you are” war, particularly in Western Europe and South Korea. Facilities became more specialized in terms of their end products; that is, plant was devoted to the production of either civilian or military items. This shift was facilitated by new and more onerous accounting requirements, whereby contractors implemented financial systems providing more visibility into what products were being manufactured with whose investment. In other words, if U.S. government dollars are being used to produce military equipment, those dollars should not be employed to manufacture foreign defense or American civilian items.

Earlier, I discussed one aspect of a mobilization scheme; that is, government finances. Two other aspects of the operational level of mobilization deserve mention as well. The first is the proper role of wage, price, and monetary controls; these controls can be voluntary, selective, or general in nature. When might these controls become necessary? Schlesinger argued the following:

“The economy is faced with the dangers of excessive expenditures, which may give rise to a vicious circle of inflationary movements. As the government spends money, it causes incomes to expand; with larger incomes, consumers will want to spend more and demand increases; with higher demand prices will rise; as prices rise and profits increase, the demand for labor increases, pushing up wage rates. This leads to further increases in income, still higher demand, and so on. As prices increase, the government must control its own expenditures, thus adding to the upward spiral. The purpose of controls is to break into this circle and to prevent or bring to a halt the rise in prices, for inflation is highly inequitable, breaks down morale, reduces the usefulness of monetary calculations and thereby impedes intelligent decision making.”<sup>101</sup>

The other level of mobilization operations is supply allocation to include both raw materials and labor. Two approaches to the problem of supply allocation have been utilized in the past, specifically World War Two. The first is what Schlesinger called the “halfway approach.” Under this scheme, the controlling agency does not attempt to manage the flow

of resources but rather through a system of priorities, controls demand. Eventually, this plan gives way to the “whole hog” approach, whereby the controlling agency ensures that those who need resources receive them in accordance with an overarching national production plan.<sup>102</sup>

In sum, if a country maintains a balanced or near balanced budget, the need for more stringent wage and price controls may be obviated. If budgets are in “disequilibrium,” then wage and price controls may be employed to help control inflation.<sup>103</sup> The final aspect of mobilization that deserves consideration is that of manpower direction. There are two direct advantages of this approach. The first is “the rapid movement of resources to the most necessary jobs without waiting for the slow process of inducement to operate.” The second is that a country “attains true price stability by achieving stabilization of costs.”<sup>104</sup>

One of the risks associated with a vigorous mobilization plan is that by diverting resources from consumers to war production could result in potential inflationary pressures from additional purchasing power chasing too few civilian goods. As a minimum requirement, a balanced budget is necessary to curtail runaway expenditures. While a balanced budget may be unrealistic, the greater the control over spending, the less need to resort to more stringent measures, such as increased taxation. As Schlesinger noted “the main purpose of taxation under conditions of mobilization is to restrain the growth of total expenditures – and particularly to curtail expenditures by consumers.”<sup>105</sup> Generally, however, there has been a reluctance to embrace the types of taxes (e.g., sales and income taxes) that most effectively curtail civilian expenditures, mostly due to political considerations.

Even assuming, as I do below, that economic capacity will become less important due to the changing nature of warfare in the twenty-first century, mobilization issues will still surface in two primary areas: production and stabilization. Mobilization “poses problems of production since it implies a rapid rechanneling of resources to bring about a composition of national output sharply distinct from the old.”<sup>106</sup> Stabilization presents a different sort of problem, in part, related to a country’s monetary policy. If a great deal of resources are invested in war production with a resultant decrease in civilian goods and an ample or increasing supply of currency exists, too much money will wind up chasing too few consumer items, raising prices and stoking inflation.<sup>107</sup>

I should add I do not place the same emphasis on economic mobilization today that it has enjoyed in the past. Any conflict short of nuclear



conflict in my opinion would be a “come as you are” war. In other words, a conventional war against China or Russia would most likely be of short duration, not allowing for economic mobilization, especially given the prospect of nuclear weapons. Moreover, while a war with Russia might involve air and ground operations, a conflict with China would most likely involve air and naval assets (with the potential exception of Taiwan). In any case, ground combat vehicles, aircraft, and ships cannot be constructed overnight; in sum, we would be forced to fight with what we have on hand.

### *Supporting an American Way of War*

As noted in the preface, discussion of an “American Way of War” has traditionally revolved around pure military concepts such as strategies of attrition versus annihilation. Following this presentation of a potential “strategic resourcing culture model,” readers should take away the notion that war is more than just strategies, operations, and tactics. The impact of resource management, whether economic and financial policy, logistics, or other non-military factors inherent in an armed conflict, play an equally important, if less well understood and perhaps under-appreciated role in how conflicts are fought and ultimately won. Whether discussing the American Revolution or the Global War on Terror (GWOT), there is a continuity to these factors that transcends time. As Spanish philosopher George Santyana noted, in an oft repeated maxim, “Those who cannot remember the past are condemned to repeat it.”<sup>108</sup>

## NOTES

1. Harry Yarger, *Towards a Theory of Strategy: Art Lykke and the U.S. Army War College Strategy Model* in *Volume I: Theory of War and Strategy, U.S. Army Guide to National Security Issues* (Carlisle Barracks, PA: U.S. Army War College, 2008), 43, 45.
2. Andre Beaufre, *An Introduction to Strategy* (New York: Praeger, 1965); 26–29; John M. Collins, *Grand Strategy: Principles and Practices*, (Annapolis, MD: Naval Institute Press, 1973), 6.
3. Carl von Clausewitz, *On War* ed. and trans. Michael Howard and Peter Paret (Princeton, NJ: Princeton University Press, 1976), 87.
4. Michael Handel, *Masters of War: Classical Strategic Thought* (New York: Routledge, 2006), xvii–xviii.

5. Jack L. Snyder, *The Soviet Strategic Culture: Implications for Limited Nuclear Operations* (Santa Monica CA: RAND Corporation, 1977), 8.
6. Thomas Mankhen, *United States Strategic Culture* (Alexandria, VA: Defense Threat Reduction Agency Advanced Systems Concepts Office), Contract No. DTRA01-03-D-0017, 4–5.
7. Jeannie L. Johnson, *Refining the Strategic Construct* (Alexandria, VA: Defense Threat Reduction Agency Advanced Systems Concepts Office), Contract No. DTRA01-03-D-0017 5, 2006.
8. Mankhen, *United States Strategic Culture*, 6.
9. *Ibid*, 330–340.
10. John Shy, *Jomini in Makers of Modern Strategy from Machiavelli to the Nuclear Age* (Princeton, NJ: Princeton University Press, 1986), 144.
11. *Ibid*, 45–46.
12. Jon Tetsuro Sumida, *Inventing Grand Strategy and Teaching Command: The Classic Works of Alfred Thayer Mahan Reconsidered* (Washington, DC: Woodrow Wilson Center Press, 1997), 5–6.
13. *Ibid*, 102.
14. Alfred Thayer Mahan, *The Influence of Sea Power Upon History: 1660–1873* (New York: Dover Publications, 1987), 26.
15. *Ibid*, 8, Philip Crowl, “Alfred Thayer Mahan: The Naval Historian” in *Makers of Modern Strategy: From Machiavelli to the Nuclear Age* (Princeton, NJ: Princeton University Press, 1986), 456.
16. Crowl, *Alfred Thayer Mahan*, 458.
17. Sumida, *Inventing Grand Strategy*, 22–23.
18. Mahan, *The Influence of Sea Power Upon History*, 103.
19. Crowl, *Alfred Thayer Mahan*, 463–464.
20. Mahan, *The Influence of Sea Power Upon History*, 29–81; Crowl, *Alfred Thayer Mahan*, 457.
21. Crowl, *Alfred Thayer Mahan*, 452, 456.
22. *Ibid*, 461–462.
23. Julian Corbett, *Principles of Maritime Strategy* (New York: Dover Publications, 2004), 18–19, 28–29, 32, 40–41, 69.
24. *Ibid*, 13–14.
25. *Ibid*, 89–91.
26. *Ibid*, 91–97.
27. *Ibid*, 95.

28. Ibid, 236.
29. Giulio Douhet, *Command of the Air* (New York: Coward-McCann, 1942), 15–18., David McIsaac, *Dohuet in Makers of Modern Strategy*, ed. Michael Howard and Peter Paret (Princeton, NJ: Princeton University Press, 1986), 630.
30. Ibid, 19–20.
31. Ibid, 69–92.
32. Ibid, 839–840.
33. Shu Guang Zhang, *Mao's Military Romanticism: China and the Korean War, 1950–1953* (Lawrence, KS: University Press of Kansas, 1995), 16–17.
34. Ibid, 17.
35. Ibid, 19.
36. Ibid, 20.
37. Ibid, 22.
38. Mao Tse Tung, *Selected Writings*, (Peking: Foreign Languages Press, 1967), 210–218; Handel, *Makers of Modern Strategy*, 6; Zhang, *Mao's Military Romanticism*, 16–25.
39. Zhang, *Mao's Military Romanticism*, 22–24.
40. John Shy et al., *Mao Tse Tung*, in *Makers of Modern Strategy*, ed. Michael Howard and Peter Paret (Princeton, NJ: Princeton University Press, 1986), 843.
41. Yuan-Li Wu, *Economic Warfare* (New York: Prentice Hall, Inc., 1952).
42. Yuan-Li Wu, *Economic Warfare* (New York: Prentice Hall, Inc., 1952).
43. Ibid, 3.
44. Ibid, 6.
45. Ibid, 6.
46. Nicholas Lambert, *Planning Armageddon: British Economic Warfare and the First World War* (Cambridge, MA: Harvard University Press, 2012).
47. Wu, *Economic Warfare*, 14–15.
48. Edward C. Chow and Anne Hudson, *The Russia-EU Relationship: A Partnership of Necessity* (Washington, DC: Center for Strategic and International Studies), November 20th, 2013.
49. Wu, *Economic Warfare*, 13–14.
50. Ibid, 13–14.
51. Ibid, 29–33.

52. Norman Angell, *The Great Illusion: A Study of the Relation of Military Power to National Advantage* (New York: G. Putnam and Sons, 1913), <https://ia700401.us.archive.org/27/items/cu31924007365467/cu31924007365467.pdf>, accessed March 21st, 2014.
53. Wu, *Economic Warfare*, 86–145.
54. *Ibid*, 86–145.
55. *Ibid*, 86–145.
56. *Ibid*, 102–105.
57. *Ibid*, 141–142.
58. Wayne Morrison and Marc LaBonte, *China's Holdings of U.S. Securities: Implications for the U.S. Economy*, Congressional Research Service, August 19th, 2013, <http://www.fas.org/sgp/crs/row/RL34314.pdf>, accessed March 24th, 2014.
59. James Rickards: Pentagon's Financial War Games Playing Out, [FinancialSense.com](http://www.financialsense.com/contributors/jim-rickards/world-playing-out-pentagon-financial-war-game), September 20th, 2013, <http://www.financialsense.com/contributors/jim-rickards/world-playing-out-pentagon-financial-war-game>, accessed March 23rd, 2014.
60. Juan Zarate, *The Treasury's War* (New York: Perseus Books, 2013).
61. *Planning Armageddon: British Economic Warfare and the First World War* (Cambridge, MA: Harvard University Press, 2012), William Silber, *When Washington Shut Down Wall Street: The Great Financial Crisis of 1914 and the Origins of America's Financial Superiority* (Princeton, NJ: Princeton University Press, 2008).
62. Wu, *Economic Warfare*, 86–87.
63. Walter Russell Mead, *Special Providence: American Foreign Policy and How it Changed the World* (New York: Taylor and Francis, 2002), xviii.
64. Mead, *Special Providence*, xvii.
65. *Ibid*, xvii.
66. *Ibid*, xvii.
67. *Ibid*, xvii.
68. John M. Collins, *U.S. Defense Planning: A Critique* (Boulder, CO: Westview Press, 1982), 8–11.
69. *Ibid*, 19.
70. *Ibid*, 20.

71. Samuel P. Huntington, *The Soldier and the State: The Theory and Politics of Civil Military Relations* (Cambridge, MA: Harvard University Press 1957).
72. Carl Builder, *Masks of War: American Military Styles in Strategy and Analysis* (Washington, DC: RAND Corporation), 1989.
73. Mankhen, *United States Strategic Culture*, 16–18.
74. *Ibid*, 16–18.
75. *Ibid*, 16, 22–24.
76. *Ibid*, 16, 22–24, <http://www.public.navy.mil/surfor/Pages/AmphibiousAssaultShip.aspx#.UyuqDKhdW6M>, accessed March 19th, 2014.
77. U.S. Army War College Guide to National Security Issues, ed. J. Boone Bartholomees, (Carlisle, PA: U.S Army Strategic Studies Institute), accessed June 8th, 2014.
78. The subject of this book is historical U.S. national security policy; to that end, the Department of Homeland Security, given its relative newness and difference in focus, is not being considered as part of these analyses.
79. John M. Collins, Elizabeth A. Severns, and Thomas P. Glaksas, *U.S. Defense Planning, A Critique*, (Boulder, CO: Westview Press, 1982), 5.
80. Merriam Webster Dictionary, <http://www.merriam-webster.com/dictionary/political%20economy>, accessed March 19th, 2014.
81. Adam Smith, *The Wealth of Nations* (New York: Random House Publishing Group), 2000.
82. John Brewer, *The Sinews of Power: War, Money, and the English State* (Cambridge, MA: Harvard University Press), 1990, 167.
83. Crauford Goodwin. National Security in Classical Political Economy in *Economics and National Security: A Study of their Interaction*, Annual Supplement to Volume 23, (Durham, NC: Duke University Press, 1991), 24.
84. Brewer, *The Sinews of Power*, 34.
85. Goodwin, National Security in Classical Political Economy, 25, 27.
86. Wu, *Economic Warfare*, 60.
87. *Ibid*, 60.
88. Schlesinger, *The Political Economy of National Security*, 151.

89. Ibid, 135.
90. Ibid, 136.
91. Ibid, 27–30.
92. Niall Ferguson, *The Cash Nexus: Money and Power in the Modern World, 1700–2000* (New York: Basic Books), 15.
93. Mark Horton and Asmaa El-Ganainy, What is Fiscal Policy?, *International Monetary Fund*, 46, 2, June 1st, 2009, 52, <http://www.imf.org/external/pubs/ft/fandd/2009/06/basics.htm>, accessed April 15th, 2014.
94. Ferguson, *The Cash Nexus*, 52.
95. Federal Reserve Bank of Richmond, [https://www.richmondfed.org/publications/research/special\\_reports/treasury\\_fed\\_accord/background](https://www.richmondfed.org/publications/research/special_reports/treasury_fed_accord/background), accessed April 25th, 2014.
96. Charles Gilbert, *American Financing of World War I*, (Westport, CT: Greenwood Publishing, 1970), 12.
97. For a detailed discussion of these various methods, see Gilbert, *American Financing*, 1–12.
98. Gilbert, *American Financing*, 12.
99. Schlesinger, *The Political Economy of National Security*, 55.
100. Ibid, 58.
101. Ibid, 84.
102. Ibid, 93.
103. Ibid, 80–81.
104. *Ibid*, 95.
105. Ibid, 79–80.
106. Ibid, 75.
107. Dwight D. Eisenhower, “Farewell Address to the Nation” in the American Presidency Project, (Santa Barbra, CA: University of California, <http://www.presidency.ucsb.edu/ws/index.php?pid=12086>).
108. George Santyana, *The Life of Reason*, Volume 1, (Houston, TX: Halcyon Press Ltd., 1905), 284.

## The Golden Age of American Imperialism: Resourcing the Spanish–American War

### ENDS

#### *Pre-War Political Culture*

William McKinley entered the presidency with a decidedly domestic orientation, following a relatively comfortable victory over William Jennings Bryant in 1896. As a veteran of the Civil War, he had seen combat up close and was determined to avoid embroiling the United States in an armed conflict if he could avoid it. In addition, the major focus of the nation was economic in nature as the industrial revolution forever changed the formerly agrarian nature of the American economy while impacting voting patterns at the same time. With these factors in mind, between 1894 and 1896, the Republicans won control of both houses and the presidency, which provided McKinley with some limited political cover as war with Spain approached.<sup>1</sup>

In the end, many varied factions supported the Spanish–American War for a variety of reasons. Agrarian and mining interests, particularly in the western United States, viewed a conflict as a way to monetize silver, in competition with gold, which could then be exported. Following an economic downturn between December 1895 and June 1897, both labor groups and big business supported a military effort, believing it would benefit the still recovering economy. Finally, the American

general in public voiced support for military action against Spain, prodded by the inflammatory journalism of both William Randolph Hearst and Joseph Pulitzer, who published lurid stories regarding Spanish counterinsurgency efforts, especially in Cuba, in order to suppress an indigenous rebellion.<sup>2</sup>

But going to war with Spain was a risky proposition for McKinley. Many of his Republican supporters preferred he concentrate on stimulating the still fragile economic recovery underway in 1898. Moreover, after a period of relative peace following the end of the Napoleonic Wars, conflict had reappeared on the European continent beginning in 1864 with the Prussian-Danish war, followed by Prussian victories over Austria (1866) and France (1871), resulting the rise of a unified Germany. With tensions still high, McKinley had to weigh the possibility of European intervention in the Caribbean. As for the Spanish, they resented American interference in what they considered to be a domestic affair. In addition, they were concerned that any perception of compromise increased the chances of a military coup against the monarchy.<sup>3</sup>

Since 1823, the United States had relied on the Monroe Doctrine to deter European interference in the Caribbean arguing “We owe it, therefore, to candor and to the amicable relations existing between the United States and those powers to declare that we should consider any attempt on their part to extend their system to any portion of this hemisphere as dangerous to our peace and safety.”<sup>4</sup> The Spanish presence in Cuba however dated back to the time of Columbus in 1492. Tensions had ebbed and flowed since that time but were on the rise now for two primary reasons. First, the price of sugar, the island’s main export, had fallen to its lowest level in years, largely due to a steep 40% duty recently imposed by the United States, which had begun waging economic warfare against Spain even before the actual shooting started. The Spanish then retaliated by raising their own tariffs on American goods exported into Cuba. As a result of both of these actions, there was an inevitable rise in the average Cuban’s cost of living. At the same time, the colonial government remained corrupt and inefficient. The Cuban rebels, realizing they could not defeat the Spanish forces deployed across the island militarily, instead opted to wage an economic war of their own, by focusing on the destruction of the sugar crop and conducting a war of terror in the fields and against factory workers employed in the industry.<sup>5</sup>



## WAYS

*Pre-War Military Strategy*

While the application of Napoleonic concepts dominated military thinking before the Civil War, the period between 1865 and 1898 was characterized by the emergence of a number of important works by influential strategists, Clausewitz and Jomini on land warfare, and Mahan and Corbett at sea, that began to be studied in earnest by American military professionals. By the end of the century, the development of specific war plans based on scholarly research and detailed planning, as embodied in the Prussian and German general staffs, and implemented in the subsequent conflicts against Denmark, Austria, and France, enabled Prussia and then Germany to establish a well-deserved reputation as the major land power, not only in Europe, but worldwide as well. The United States would be slower to adopt such innovations as the general staff system concept.<sup>6</sup>

At the operational level of warfare, the advancement in technology described in more detail below introduced a different and more lethal battlefield. Unable to maneuver in densely packed formations, both attackers and defenders were forced to disperse. For the attacker, the suicidal nature of frontal assaults placed a premium on maneuver and mobility. Conversely, defenders sought the protection of field fortifications, which by the end of the century, had evolved into elaborate trench systems. Despite the increased focus on mobility, cavalry became almost non-existent in the face of heavily armed infantry formations; as such, they assumed a screening and reconnaissance role, although dragoon units, able to fight both as cavalry and dismounted infantry, remained an important part of many armies.<sup>7</sup>

The American Civil War provided the first glimpse of how technological advancements would impact future conflicts. At the strategic and operational level, the use of the railroad greatly improved the mobility of forces, allowing commanders to not only incorporate this capability into campaign plans but also react much more quickly defensively as well. The use of the telegraph and cable ensured rapid coordination between the government and commanders, but as was evident in the Civil War, allowed civilian political authorities to interfere with field operations as

well. Finally, the implementation of these new technologies and others like them freed up a greater number of human resources to replace the tremendous losses suffered in the field.<sup>8</sup>

The tactical level of warfare during this period saw substantial advancements as well. In the world of small arms, the single shot muzzle loader firing the Minie ball had been superseded by the multi-shot rifle delivering an elongated conical bullet, thus vastly increasing the firepower available to the common soldier, who also now had access to primitive hand grenades for use at close quarters. The invention of smokeless powder enhanced the survivability of the infantryman, while machine guns and land mines made their first ominous appearance at the end of the Civil War. Like the innovations in small arms, field artillery likewise underwent a transformation. Muzzle loading artillery pieces were replaced by breech-loaders firing armor piercing and lighter weight anti-personnel rounds. Solid shot had been supplanted by new shells filled with explosives and detonated by the use of a fuzed mechanism. The smoothbore cannon, which relied on sheer force to destroy its target, had been replaced the rifled artillery piece, which improved accuracy.<sup>9</sup>

At sea, the impact of the battle between the USS Monitor and CSS Virginia during the Civil War foreshadowed the doom of the sail powered warship. By the end of the century, every major power possessed an iron-clad navy, mounting small, medium, and large caliber weapons designed to deal with different threat levels, leaving the battleship as the queen of the ocean. However, during this period, the torpedo armed submarine, first introduced in the Civil War, also continued to evolve, although like the battleship, this weapon would reach its zenith during the first decade of the twentieth century. Operationally and tactically, the line ahead formation (ships traveling in single file), continued to be the preferred deployment option. However, a new tactical development was under serious consideration, that is, "crossing the T," whereby, through the use of superior speed and increased firepower, one fleet could concentrate its fire on the lead ships of an enemy formation, causing those following to disperse in confusion, leaving them open to destruction in detail.<sup>10</sup>

As for the United States, American military strategy focused first on naval operations and secondly on land. The territorial disputes with the British had been settled, large in favor of the Americans, thus obviating the need for a substantial land force. The bulk of its activities focused primarily on the reconstruction of the south following the end of the Civil War, dealing with industrial strife and continuing to conduct small unit

operations. Meanwhile, the seemingly endless counterinsurgency effort against the various Indian tribes in the western and southwestern United States led to the creation of a small but highly professional Army that would only be called on to help the Navy in physically occupying enemy territory in the event of an overseas campaign. If a larger force was needed, most senior Army officers expected to raise a force no larger than 75,000–100,000 troops who would be enlisted for the duration of the war and then disbanded upon its completion. Suffice to say, the Army did not anticipate again utilizing its counterinsurgency skills for nearly four years in the Philippines, especially given the contrasting nature of the western and southwestern plains versus the jungles of an island archipelago.<sup>11</sup>

This is not to say reforms of the Army were not attempted in the interwar years. Although not published until after his death, Brigadier General Emory Upton wrote a very influential tome called “*The Military Policy of the United States since 1775*.” In it, Upton analyzed U.S. military history and came to several controversial conclusions including civilian authorities exercising too much control over the military, resulting in faulty decisions in the field. He also argued for a large standing army to be supplemented by reserves or militia when required as well as establishing a general staff based on the Prussian model. He called for a strengthened professional military educational system and a more objective promotion system based on examinations conducted by these schools. Finally, he also advocated fixed retirement dates for all officers in order to create opportunities for up and coming junior personnel. Although it was not published until 1904, following the end of the Spanish–American War, it became the source of many reforms instituted by Secretary of War Elihu Root in the early twentieth century.<sup>12</sup>

The Navy by contrast, having bulked up in terms of both quantity and quality and spurred on by the hyper aggressive Assistant Secretary of the Navy, Theodore Roosevelt, now began emphasizing blue water fleet operations as opposed to the traditional coastal defense and commerce raiding missions of the past. As tensions with Spain increased, the Navy staff developed potential plans of action against the Spanish possessions in Cuba and the Philippines; the bulk of the available forces were deployed in the Atlantic theater of operations. One plan called for moving against Cuba with the intent of establishing a blockade. A second force of four armored cruisers would sail for Spain with the intent of harassing both the coast and local commerce. Finally, the Asiatic Squadron would blockade and seize Manila. Another plan called for attacking Cuba and Puerto

Rico while another squadron would be sent to Spain to harass commerce and shipping and perhaps attacking Spain itself. The final leg of the plan consisted of attacking Spanish possession in the Pacific, most notably the Philippines. But the attack on Spain itself was considered too risky even for the most aggressive of the naval leadership.<sup>13</sup>

The Spanish meanwhile embarked on a classic counterinsurgency strategy against the Cuban rebels, utilizing such measures as concentration camps, hoping to quell the insurgency before a third party such as the United States could intervene. The rebels by contrast had the skill and determination to destroy the economy but this did not translate into success against the Spanish army; much as was the case in the American Civil War, disease caused more Spanish casualties than combat. By 1898, the Spanish held the major cities while the rebels controlled the countryside. The situation replicated itself in the Philippines, but with additional problems caused by geography. Whereas the Cuban counterinsurgency campaign took place within a relatively limited geographic area, the Philippines presented a much different and more difficult task. A maritime archipelago, the Philippines comprised over 7,000 islands encompassing some 500 square miles (Fig. 2.1).<sup>14</sup>

### *Pre-War Operational Strategy*

Both the U.S. Army and Navy had suffered as a result of the inevitable drawdown following the conclusion of the Civil War. The army suffered far worse however, particularly in terms of available manpower, declining from approximately one million troops by the end of the Civil War to less than 30,000 just prior to the beginning of hostilities with the Spanish in 1898.<sup>15</sup> The Navy by contrast, saw its fortunes improve beginning in the late 1870s, largely as the result of a naval arms race sparked by Germany's desire to gain parity with the British Royal Navy and the growing maritime power of Japan. Although Captain Alfred Thayer Mahan would not publish his extremely influential book *The Influence of Sea Power upon History* for another decade, senior naval officers believed the growth of international trade would evolve largely upon those who had the capacity to defend their own commerce while denying the use of the sea to adversaries. By 1897, on the eve of the Spanish–American War, the U.S. Navy possessed four first-class battleships, two second-class battleships, eighteen cruisers, sixteen torpedo boats, and one submarine under construction, manned by a force of nearly 13,000 officers and men. A year later, the



Fig. 2.1

Navy had acquired an additional 103 ships.<sup>16</sup> In addition, the naval shore establishment had likewise been revamped as well.<sup>17</sup>

## MEANS

### *Pre-War Economic Culture*

The United States had suffered from a series of economic downturns in the late 1880s and early 1900s, lasting on average approximately fifteen months in duration; hence the pressure on the new McKinley administration to focus on domestic economic issues as opposed to foreign policy. This focus extended to a series of financial crises including several between the Civil and Spanish–American Wars (Table 2.1).<sup>18</sup>

### *Pre-War Fiscal Policy*

In terms of fiscal policy, the McKinley Tariff Act of 1890 raised tariff rates on many American manufactured products by 50% while placing items such as sugar and coffee on the free list. Both the dollar amount and percentage of total receipts in the other internal revenue line increased dramatically, to the extent that customs taxes provided a much lower percentage of revenue than had been the case prior to many of America's other armed conflicts. For example, in 1890, the amount of other internal revenue as a percentage of total U.S. government receipts increased from 35% to as high as 48% before leveling off a few percentage points by the start of the Spanish–American War. Four years later, the Democrats wrestled control of Congress away from the Republics and immediately proposed changes in fiscal policy such as a reduction of the McKinley tariff

**Table 2.1**

<i>Peak date</i>	<i>Trough date</i>	<i>Peak to trough months</i>
March 1887	April 1888	13
July 1890	May 1891	10
January 1893	June 1894	17
December 1895	June 1897	18
June 1899	December 1900	18
Average		15

and the reintroduction of an income tax in an effort to appeal to their domestic base (as always, the issue of an income tax raised the question of the constitutionality of such a measure). However, not only did the courts rule against the Democratic policy, but also the bill was defeated in the Senate. This, in turn, was followed by the Dingley tariff of 1897, which raised the tariff on imported sugar to 97%, directly impacting the outbreak of the Spanish–American War, as mentioned previously.<sup>19</sup>

Despite domestic disputes over tariff policy, the United States generally ran surpluses until the mid-1890s, when increased spending on the military and a sharp increase in compensation related to Civil War veteran benefits caused the country to fall into deficit. Prior to this time, military spending as a percentage of total outlays was much lower than historical precedent, largely due to the lack of a true adversary in North America (the bulk of the Army's time during this period was spent fighting the Plains Indians, by definition, a low expenditure activity). However, naval spending nearly tripled between 1883 and 1897. Still, the United States generally ran budget surpluses up until a few years before the advent of the war. It is also interesting to note how the other internal revenue line decreased as a percent of total receipts due to the elimination of the Union's individual and corporate tax system following the end of the Civil War (Tables 2.2, 2.3, and 2.4).<sup>20,21,22,23</sup>

### *Pre-War Monetary Policy*

Much of the pre-war debate over monetary policy centered around the issues of free coinage of silver and the gold standard. Under the terms of the 1878 Bland-Allison Act, the federal government was required to purchase a certain amount of silver and place it into circulation as silver dollars. The measure was supported, as mentioned earlier, by western mining companies for obvious reasons and agricultural interests who believed that the introduction of silver would raise crop prices. Although initially vetoed by President Rutherford B. Hayes, Congress overrode his veto and passed the act. This was followed by the Silver Act in 1890 that increased the limited amount of silver the Treasury Department would be required to purchase each month. In addition, treasury notes were to be considered full as opposed to partial legal tender, while the redemption of these notes would be conducted in silver or gold at the discretion of the Secretary of the Treasury.<sup>24</sup>

In his Annual Report for 1897, dated December 6 of that year, Secretary of the Treasury Ellis H. Roberts also commented upon the state of the U.S. gold reserve, noting that

Table 2.2

<i>Year</i>	<i>Individual income taxes (%)</i>	<i>Other internal revenue (%)</i>	<i>Customs (%)</i>	<i>Sale of public lands (%)</i>	<i>Other (%)</i>	<i>Total receipts (%)</i>
1866	0%	55%	32%	0%	12%	100%
1867	0%	54%	36%	0%	10%	100%
1868	0%	47%	41%	0%	12%	100%
1869	0%	43%	49%	1%	8%	100%
1870	0%	45%	47%	1%	7%	100%
1871	0%	37%	54%	1%	8%	100%
1872	0%	35%	58%	1%	7%	100%
1873	0%	34%	56%	1%	9%	100%
1874	0%	34%	53%	1%	12%	100%
1875	0%	38%	55%	0%	7%	100%
1876	0%	40%	50%	0%	10%	100%
1877	0%	42%	47%	0%	11%	100%
1878	0%	43%	51%	0%	6%	100%
1879	0%	41%	50%	0%	8%	100%
1880	0%	37%	56%	0%	7%	100%
1881	0%	37%	55%	1%	7%	100%
1882	0%	36%	55%	1%	8%	100%
1883	0%	36%	54%	2%	8%	100%
1884	0%	35%	56%	3%	6%	100%
1885	0%	35%	56%	2%	7%	100%
1886	0%	35%	57%	2%	6%	100%
1887	0%	32%	59%	2%	7%	100%
1888	0%	33%	58%	3%	7%	100%
1889	0%	34%	58%	2%	6%	100%
1890	0%	35%	57%	2%	6%	100%
1891	0%	37%	56%	1%	6%	100%
1892	0%	43%	50%	1%	6%	100%
1893	0%	42%	53%	1%	5%	100%
1894	0%	48%	43%	1%	8%	100%
1895	0%	44%	47%	0%	9%	100%
1896	0%	43%	47%	0%	9%	100%
1897	0%	42%	51%	0%	7%	100%
Average	0%	40%	51%	1%	8%	100%



Table 2.3

<i>Year</i>	<i>Department of the Army (%)</i>	<i>Department of the Navy (%)</i>	<i>Veterans compensation (%)</i>	<i>Interest on the public debt (%)</i>	<i>Other (%)</i>	<i>Total outlays (%)</i>
1866	55%	8%	3%	26%	9%	100%
1867	27%	9%	6%	40%	19%	100%
1868	33%	7%	6%	37%	17%	100%
1869	24%	6%	9%	41%	20%	100%
1870	19%	7%	9%	42%	23%	100%
1871	12%	7%	12%	43%	26%	100%
1872	13%	8%	10%	42%	27%	100%
1873	16%	8%	10%	36%	30%	100%
1874	14%	10%	10%	35%	31%	100%
1875	15%	8%	11%	38%	29%	100%
1876	14%	7%	11%	38%	30%	100%
1877	15%	6%	12%	40%	27%	100%
1878	14%	7%	11%	43%	24%	100%
1879	15%	6%	13%	39%	27%	100%
1880	14%	5%	21%	36%	23%	100%
1881	16%	6%	19%	32%	28%	100%
1882	17%	6%	24%	28%	26%	100%
1883	18%	6%	25%	22%	29%	100%
1884	16%	7%	23%	22%	32%	100%
1885	16%	6%	22%	20%	36%	100%
1886	14%	6%	26%	21%	33%	100%
1887	14%	6%	28%	18%	34%	100%
1888	14%	6%	30%	17%	33%	100%
1889	15%	7%	29%	14%	35%	100%
1890	14%	7%	34%	11%	34%	100%
1891	13%	7%	34%	10%	35%	100%
1892	13%	8%	39%	7%	32%	100%
1893	13%	8%	42%	7%	30%	100%
1894	15%	9%	38%	8%	31%	100%
1895	15%	8%	40%	9%	29%	100%
1896	14%	8%	40%	10%	28%	100%
1897	13%	9%	39%	10%	28%	100%
Average	17%	7%	21%	26%	28%	100%

**Table 2.4**

<i>Year</i>	<i>Total receipts (\$)</i>	<i>Total outlays (\$)</i>	<i>Surplus/deficit (\$)</i>
1866	\$558,033	\$520,809	\$37,224
1867	\$490,634	\$357,543	\$133,091
1868	\$405,638	\$377,340	\$28,298
1869	\$370,944	\$322,865	\$48,079
1870	\$411,255	\$309,654	\$101,601
1871	\$383,324	\$292,177	\$91,147
1872	\$374,107	\$277,618	\$96,489
1873	\$333,738	\$290,345	\$43,393
1874	\$304,979	\$302,534	\$2,445
1875	\$288,000	\$274,623	\$13,377
1876	\$294,096	\$265,101	\$28,995
1877	\$281,406	\$241,834	\$39,572
1878	\$257,764	\$236,964	\$20,800
1879	\$273,827	\$266,948	\$6,879
1880	\$333,527	\$267,643	\$65,884
1881	\$360,762	\$260,713	\$100,049
1882	\$403,525	\$257,981	\$145,544
1883	\$398,288	\$265,408	\$132,880
1884	\$348,520	\$244,125	\$104,395
1885	\$323,691	\$260,227	\$63,464
1886	\$336,440	\$242,483	\$93,957
1887	\$371,403	\$267,932	\$103,471
1888	\$379,266	\$267,925	\$111,341
1889	\$387,050	\$299,289	\$87,761
1890	\$403,081	\$318,041	\$85,040
1891	\$392,612	\$365,774	\$26,838
1892	\$354,938	\$345,023	\$9,915
1893	\$385,820	\$383,478	\$2,342
1894	\$306,355	\$367,525	(\$61,170)
1895	\$324,729	\$356,195	(\$31,466)
1896	\$338,142	\$352,179	(\$14,037)
1897	\$347,722	\$365,774	(\$18,052)
Average	\$360,113	\$307,002	\$53,111

“Heavy imports of gold, which amounted to \$62,000,000 in the months of September and October, and before the total cessation of the movement, in December, added \$10,000,000 more, now brought relief. The gains from this source gradually augmented the reserve till it reached \$125,600,065, on the 6th of October. During that month, however, the redemptions of notes in gold, which in September had reached only \$4,661,446, increased to \$12,073,835, and under the effect of these the reserve again declined until

November 5, when the returns showed only \$114,957,109. Diminished demands for redemption then permitted an almost daily gain of gold, which continued without interruption until April 28, 1897, when the reserve reached \$155,639,773.

Fresh exports of gold, beginning the latter part of April and continuing until the first week in August, 1897, again drew the metal from the Treasury, and the reserve, which was reduced by the movement below \$145,000,000 on the 24th of May, varied with unimportant changes during the remainder of the period, the lowest amount recorded any day being \$140,160,439 on August 4. Since that date the absence of any considerable demand for the redemption of notes has again permitted the gradual gain of gold.”<sup>25</sup>

### *Pre-War Debt Policy*

Following the end of the Civil War, the United States gradually reduced the balance outstanding of debt up until the beginning of the Spanish–American War, due largely to economic recovery and expansion (Table 2.5). In his Annual Report for 1897, the Secretary of the Treasury also noted, for example:

“By the conversion of \$2,010 of refunding certificates with accrued interest into bonds of the loan of 1907, the interest-bearing debt was increased in the amount of \$1,240. The redemption of \$290,010 of the matured debt, together with the deposit of \$15,448,970 for the retirement of national-bank notes, the payment of \$11,092,355.50 on the same account, and the redemption of \$3,482 in fractional currency, made a net increase of \$4,063,122.50 in the outstanding obligations bearing no interest and payable on demand. Bonds issued to the Pacific railroads amounting to \$11,083,000 were paid, and thus with the payment of \$9,556,000 in previous years, the outstanding principal of this loan was reduced to \$43,984,512. Of those still to be paid, \$75,000, on June 30, were past due and payable on presentation j \$29,904,952 will mature on January 1, 1898, and \$14,004,560 on January 1, 1899.”<sup>26,27</sup>

## CHRONOLOGY OF POLITICAL, STRATEGIC/OPERATIONAL, AND RESOURCE MANAGEMENT EVENTS

### *1897*

On December 6, 1897, McKinley delivered his Annual Message to Congress, in which he seemed to anticipate coming hostilities with Spain

**Table 2.5**

<i>Year</i>	<i>Interest expense (\$)</i>	<i>Total debt (\$)</i>	<i>Interest expense as a % of total debt</i>
1866	\$133,068	\$2,773,236	4.8%
1867	\$143,782	\$2,678,126	5.4%
1868	\$140,424	\$2,611,687	5.4%
1869	\$130,964	\$2,588,152	5.1%
1870	\$129,235	\$2,480,672	5.2%
1871	\$125,577	\$2,353,211	5.3%
1872	\$117,358	\$2,253,251	5.2%
1873	\$104,751	\$2,232,482	4.7%
1874	\$107,120	\$2,251,690	4.8%
1875	\$103,094	\$2,232,284	4.6%
1876	\$100,243	\$2,180,395	4.6%
1877	\$97,125	\$2,205,301	4.4%
1878	\$102,501	\$2,256,205	4.5%
1879	\$105,323	\$2,349,567	4.5%
1880	\$96,758	\$2,120,415	4.6%
1881	\$82,509	\$2,069,012	4.0%
1882	\$71,077	\$1,918,312	3.7%
1883	\$59,160	\$1,894,171	3.1%
1884	\$54,578	\$1,830,528	3.0%
1885	\$51,386	\$1,863,964	2.8%
1886	\$50,580	\$1,775,062	2.8%
1887	\$47,742	\$1,657,602	2.9%
1888	\$44,715	\$1,692,858	2.6%
1889	\$41,001	\$1,619,052	2.5%
1890	\$36,099	\$1,552,140	2.3%
1891	\$37,547	\$1,545,996	2.4%
1892	\$23,378	\$1,588,464	1.5%
1893	\$27,684	\$1,545,985	1.8%
1894	\$27,841	\$1,622,253	1.7%
1895	\$30,978	\$1,676,120	1.8%
1896	\$35,385	\$1,769,840	2.0%
1897	\$37,191	\$1,817,672	2.0%
Average	\$78,005	\$2,031,428	3.6%

over the Cuban issue (although he was careful to note the United States had no intention of annexing the island). In it, he noted:

“The most important problem with which this Government is now called upon to deal pertaining to its foreign relations concerns its duty toward Spain and the Cuban insurrection. Problems and conditions more or less

in common with those now existing have confronted this Government at various times in the past. The story of Cuba for many years has been one of unrest, growing discontent, an effort toward a larger enjoyment of liberty and self-control, of organized resistance to the mother country, of depression after distress and warfare, and of ineffectual settlement to be followed by renewed revolt. For no enduring period since the enfranchisement of the continental possessions of Spain in the Western Continent has the condition of Cuba or the policy of Spain toward Cuba not caused concern to the United States."<sup>28</sup>

### 1898

Relations between Spain and the United States were tense to begin with, primarily as a result of the brutal counterinsurgency campaign waged by the Spanish following an unsuccessful insurrection by the Cuban population. Beginning in 1895, the Spanish established a system of fortifications in an effort to isolate the insurgents; when that failed, they built a series of concentration camps where non-combatants were housed under horrible conditions. As news of these camps reached the United States, American public opinion, stoked by sensational news reports from the likes of Hearst and Pulitzer, quickly turned against the Spanish and in favor of the rebels. On February 15, 1898, the battleship USS Maine, sent to protect American commercial interests in Cuba, lay at anchor in Havana Harbor when an explosion suddenly rocked the ship, sinking her with the loss of 260 men. Although opinions differed as to the cause of the incident, in the end, the Spanish were blamed. Six weeks later on April 25, 1898, the United States declared war on Spain.<sup>29</sup>

On March 9, 1898, Congress appropriated an additional \$50 million. In addition, it also authorized the borrowing of no more than \$100 million in call certificates and an amount not to exceed an additional \$400 million in 3% 10/20 bonds. All told, including the \$50 million appropriation, Congress eventually appropriated approximately \$362 million for the war effort; their Spanish foes by contrast were nearly bankrupt and, as a result, would not be able to sustain a long war effort.<sup>30</sup>

Meanwhile, although McKinley continued to hold out hope for a diplomatic end to the dispute, increasing domestic pressure forced him to take some action in Cuba. On April 11, 1898, he asked Congress for a declaration of war, stressing four major rationales for the request: ending the bloodshed in Cuba; protecting American personnel and interests on

the island; precluding any further damage to the Cuban infrastructure; and, finally, removing the menace to peace in the Caribbean. Congress responded by passing a joint resolution stating the Cuban people to independent; that Spain withdraw its land and naval forces from Cuba; the call up of both regular and militia forces to enforce the resolution; and, finally, disclaiming any intent of the part of the United States to exercise sovereignty or jurisdiction over Cuba once the Spanish had departed.<sup>31</sup>

Congress followed up this series of legislation on April 22, 1898, by authorizing the recruitment of volunteers to serve a minimum of two years, under the command of their own officers, alongside the regular army.<sup>32</sup> The following day McKinley issued the following proclamation:

“By virtue of the power vested in me by the Constitution and the laws, and deeming sufficient occasion to exist, have thought fit to call forth, and hereby do call forth, volunteers to the aggregate number of 125,000 in order to carry into effect the purpose of the said resolution, the same to be apportioned, as far as practicable, among the several States and Territories and the District of Columbia according to population and to serve for two years unless sooner discharged.”<sup>33</sup>

Events began to move quickly from that point forward. The Spanish declared war on April 24, 1898, with the Americans reciprocating the following day. On April 26, 1898, McKinley called for a blockade of Cuba. Its purpose was to prevent the Spanish from reinforcing and resupplying their substantial forces on the island while at the same inflicting economic damage on the Spanish as well by disrupting trade.<sup>34</sup> Concurrent operations were launched against Cuba and the Philippines shortly thereafter. On April 27, 1898, an American fleet with five cruisers and two gunboats under the command of Commodore George Dewey set sail from its anchorage at Hong Kong for Manila Bay. Arriving the night of April 30, 1898, and despite the potential threat of mines, Dewey sailed directly into Manila Bay. The opposing Spanish force consisted of four cruisers and three gunboats under the command of Admiral Patricio Montojo. Montojo, realizing he was heavily outgunned by the American fleet, anchored his ships off the fortified naval shipyard at Cavite, where he could be supported by land batteries. Dewey ignored this threat as well and attacked and totally destroyed the Spanish squadron at its anchorage as well as the supporting land batteries. Not having sufficient land forces to take the city, Dewey contented himself with occupying Cavite and blockading Manila itself, while he waited for ground troops to arrive (Fig. 2.2).<sup>35</sup>

Meanwhile, on April 29, 1898, another Spanish fleet comprising four modern cruisers and three destroyers under the command of Admiral Pascual Cervera departed the Cape Verde Islands destined for the Caribbean.<sup>36</sup> Despite attempts by Admiral William T. Sampson, commander of the U.S. Atlantic Fleet, to intercept the Spanish forces with his five battleships, two armored cruisers, as well as some support vessels, Cervera managed to reach the fortified harbor at Santiago de Cuba unscathed. Upon learning of Cervera's arrival at Santiago, Sampson imposed an immediate blockade on the harbor, and like Dewey in the Philippines, awaited ground reinforcements.<sup>37</sup> On June 14, 1898, the U.S. Army V Corps under the command of General William Shafter, after a tumultuous mobilization, left Tampa, FL, with 168,000 men embarked, including most of the Regular Army (fifteen regiments including six of cavalry) and three volunteer infantry regiments.<sup>38</sup> Between June 22, 1898 and June 25, 1898, this force debarked against no opposition in the vicinity of Daquiri, Cuba. However, battlefield coordination suffered immediately. Shafter anticipated naval support on a land attack against Santiago, whereas Sampson saw the ground campaign as an adjunct to a decisive naval battle against Cervera's fleet ensconced in the harbor. In the midst of these disagreements, Shafter decided to attack without Sampson's assistance (Fig. 2.2).<sup>39,40</sup>

In the meantime, Emilio Aguinaldo, who taken command of the Filipino rebels in March 1897, made his first approach to Dewey following his victory at Manila Bay, attempting to divine American intentions, particularly regarding the prospect of Filipino independence; he was to be disappointed in the response. As a result, on May 23, 1898, Aguinaldo unilaterally declared himself dictator of the Philippines, but McKinley treated him, unlike the Cubans, with a distinct disinclination to recognize Philippine independence.<sup>41</sup> On May 29, 1898, General Wesley Merritt was appointed as the commander of the 20,000 man strong U.S. Army VIII Corps, which had been tasked with the mission of supplying ground support to Dewey's forces occupying the harbor. On June 12, 1898, as he prepared to sail from San Francisco for Manila, Aguinaldo unilaterally declared Philippine independence. Wishing to take advantage of the lull in American military activity, on June 18, 1898, he promulgated a plan to establish local government throughout the archipelago.<sup>42</sup> Two days later, on June 20, 1898, he established a two tier military structure consisting of regular troops who would come to be known as the "Army of Liberation" supported by "Revolutionary Militia." In the meantime, the VIII Corps,

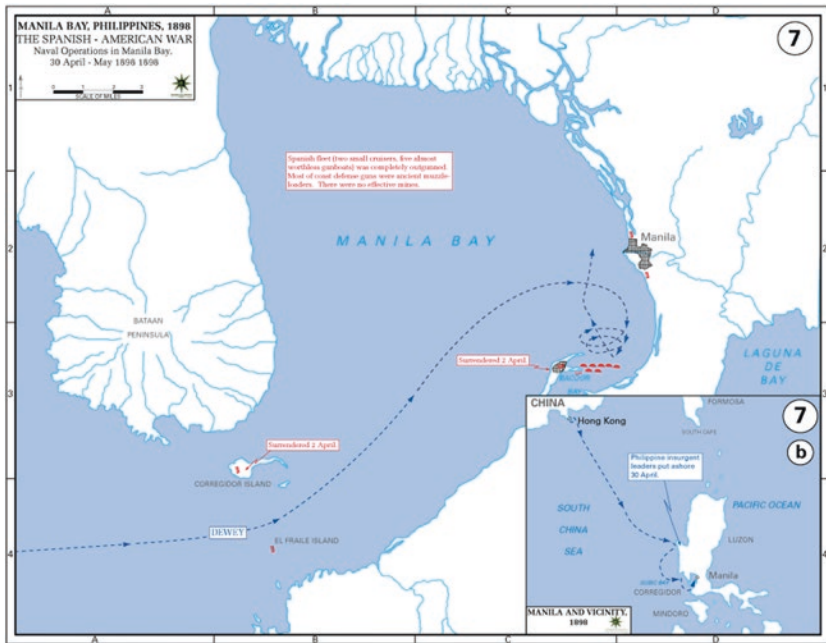


Fig. 2.2

on its way to the Philippines, occupied Guam the following day, giving the United States another forward foothold in addition to Hawaii. On June 23, 1898, after Aguinaldo declared himself head of the Filipino revolutionary government, while a week later on June 30, 1898, the VIII Corps disembarked at Cavite where they were met by Aguinaldo, who once again inquired as to American intentions (Fig. 2.3).<sup>43,44</sup>

Meanwhile, upon the outbreak of the war, Congress unanimously appropriated \$50 million to fund the war. On June 13, 1898, Congress supplemented these monies through the passage of the War Revenue Act. Under its provisions, a number of special taxes were imposed and were quite successful in raising additional funds for the war effort (Fig. 2.4).<sup>45,46</sup>

The Spanish had deployed over 200,000 troops to Cuba but many of these were dispersed in remote garrisons conducting counterinsurgency operations; less than 35,000 were located in the Santiago area with 13,000 of them in the city itself. The Spanish commander, General Antonio Linares, made no attempt to concentrate his forces, preferring to





Fig. 2.3

depend on geography to slow the Americans down.<sup>47</sup> The San Juan Ridge, anchored by Kettle Hill in the middle of the formation, was defended by 1,200 Spanish troops. The other major Spanish troop disposition was northeast of Santiago on El Caney, manned by another 500 men. On July 1, 1898, Shafter decided to attack both simultaneously but the joint attack was slowed by the inexperience of the relatively untrained volunteers and that of the senior officers, many of whom had served during the Civil War, and were unused to maneuvering large bodies of troops. Still, Shafter's forces easily overwhelmed the Spanish defenders. Santiago surrendered on July 17, 1898.<sup>48</sup> In the meantime, Cervera, sensing that time was running out, led his ships toward the harbor entrance on July 17, 1898, where Sampson and the numerically and qualitatively superior American fleet waited. Within a fairly short period of time, the Spanish had been driven onto the harbor shores by the American naval gunfire. Following the destruction of the Spanish fleet, Santiago formally surrendered on July 17, 1898. On July 25, 1898, some 5,000 troops under the



Fig. 2.4

command of General Nelson Miles landed on Puerto Rico, quickly defeating the Spanish forces still resident on the island.<sup>49</sup>

Meanwhile, in the Philippines, realizing the futility of their position, the Spanish approached Merritt and agreed to capitulate on two conditions. First, the Americans would allow them the honor of surrendering following a sham battle. Second and perhaps more importantly, the Spanish wanted assurances the Filipino rebels would not be allowed into Manila for fear of retribution; Merritt agreed to both conditions, officially informing Aguinaldo his forces were not to enter the city. On April 14, 1898, the Spanish surrendered and the Americans occupied Manila.<sup>50</sup> Relations between the United States and the rebels rapidly deteriorated over the next month as it became more and more evident to the Filipinos the Americans had no intention of withdrawing anytime soon. On September 8, 1898, the new American commander in the Philippines, General Elwell Otis, who had replaced an unwell Merritt, ordered Aguinaldo's forces to withdraw from the Manila suburbs; he repeated the order a week later after he determined the rebels were still within the city limits; this time Aguinaldo refused, and open warfare nearly broke out.<sup>51</sup>

On December 5, 1898, McKinley issued his Annual Message to the Congress, which dealt almost entirely with the Spanish war and its eventual conclusion, noting

“Accordingly, on the afternoon of August 12, M. Cambon, as the plenipotentiary of Spain, and the Secretary of State, as the plenipotentiary of the United States, signed a protocol providing--

ARTICLE I. Spain will relinquish all claims of sovereignty over and title to Cuba.

ART. II. Spain will cede to the United States the island of Puerto Rico and other islands now under Spanish sovereignty in the West Indies, and also an island in the Ladrones to be selected by the United States.

ART. III. The United States will occupy and hold the city, bay, and harbor of Manila pending the conclusion of a treaty of peace which shall determine the control, disposition, and government of the Philippines.

The fourth article provided for the appointment of joint commissions on the part of the United States and Spain, to meet in Havana and San Juan, respectively, for the purpose of arranging and carrying out the details of the stipulated evacuation of Cuba, Puerto Rico, and other Spanish islands in the West Indies.

The fifth article provided for the appointment of not more than five commissioners on each side, to meet at Paris not later than October 1 and

to proceed to the negotiation and conclusion of a treaty of peace, subject to ratification according to the respective constitutional forms of the two countries.

The sixth and last article provided that upon the signature of the protocol hostilities between the two countries should be suspended and that notice to that effect should be given as soon as possible by each Government to the commanders of its military and naval forces.”<sup>52</sup>

The following day, on December 6, 1898, Secretary of the Treasury Lyman Gage released his Annual Report to the Congress. In it, he noted the continuing debate over monetary policy. Also of particular note were his remarks on war taxes:

“The report of the Commissioner of Internal Revenue possesses peculiar interest, indicating, as it does, the operation of the war-revenue act of June 13, 1898. It shows quite clearly that the aggregate revenue to be derived there from will form a smaller total than was estimated by the more sanguine of its supporters. The Commissioner's estimate of \$100,000,000 from this source seems to be fairly justified by the results to the Treasury during the period from July 1 to the present time.”<sup>53</sup>

Finally, on December 10, 1898, the Treaty of Paris was signed ending Spanish sovereignty over Cuba while surrendering control of Guam and Puerto Rico to the Americans. Finally, similar to the Mexican–American War, the United States purchased the Spanish possessions in the Philippines for \$20 million. Technically, the war was over but much to the dismay of the Americans, fighting continued in the Philippines for another three years.<sup>54</sup> In the meantime, Otis finally received his operational orders from McKinley regarding future American policy for the Philippines. Two key points stood out from the guidance: First, McKinley clearly indicated that the political aim of the United States was to lay claim to the entire archipelago. Second, the Army was given the mission of enforcing the law, an operation better suited to law enforcement. However, Otis had the additional problem that three quarters of his forces had volunteered to serve in Cuba, not the Philippines, and wanted to return home.<sup>55</sup>

## 1899

On January 20, 1899, following news of the Spanish surrender, Aguinaldo proclaimed Philippine independence, in light of American reluctance to

abandon their new conquest. He refused to recognize the Treaty of Paris and initiated a near complete siege of Manila in an effort to convince the Americans to acknowledge the claims of the native Filipinos. On February 4, 1899, after an insurgent attack on an American patrol, the U.S. troops occupying Manila drove the Filipinos, who had expected an indigenous uprising, away from the city. Otis decided to go on the offensive against the rebel capital city of Malolos. Once again, the results were much the same as Manila. The Americans, possessing superior conventional forces, had no difficulty routing the Filipinos. By October 1899, Otis realizing the Liberation Army could still function as a guerilla force launched an invasion of northern Luzon. Aguinaldo had come to the same conclusion and disbanded the Liberation Army in favor of pursuing an insurgent strategy, much as they had against the Spanish.<sup>56</sup>

### 1900

On March 14, 1900, Congress passed the Currency Act of 1900, essentially establishing a gold standard for the United States. Among its provisions were that gold was declared to be the standard while it was the duty of the secretary of the Treasury to maintain parity with all other forms of money; the national banking system was extended to smaller cities and towns; and finally, authority was given to refinance as much of the public debt at lower interest rates.<sup>57</sup>

Meanwhile, events were progressing less well in the ongoing pacification campaign; Otis, believing his pacification effort in northern Luzon to be complete, now turned his attention to the southern part of the island.<sup>58</sup> On May 5, 1900, General Arthur MacArthur, the father of the future Pacific commander in World War Two and in the Korean War, General Douglas MacArthur, assumed command of the American forces in the Philippines from Otis. He noticed immediately that the number of guerilla engagements had increased, leading him to believe that while the Filipino population supported the ongoing civic action strategy initiated by Otis by day, by night they were actively backing the guerillas. He decided to initiate a four month campaign involving 70,000 men to put down the insurgency once and for all. In the meantime, McKinley easily won re-election to the presidency in 1900, handily defeating his old rival, William Jennings Bryant.<sup>59</sup>

By December 1900, MacArthur had adopted a much more aggressive strategy, focusing on the military side of the pacification as opposed to Otis, who, through his civic action program, had cultivated the Filipino

elite in an effort to gain support for the American effort.<sup>60</sup> Between December 1900, and his departure in July 1901, MacArthur's strategy was largely successful; armed resistance disappeared in twenty one of the thirty four provinces. However, MacArthur had his differences with the new head of the second Philippine Commission, William Howard Taft, and was replaced by General Adna Chaffee. Chaffee was given the mission of relinquishing the army's civic functions in order to train indigenous forces up to a greater level of operational efficiency. However, McKinley was the victim of an assassin's bullet on September, 14, 1901<sup>61</sup>; on July 4 of the following year, McKinley's successor, Theodore Roosevelt, declared the insurrection over.<sup>62,63</sup>

## ENDS

Utilizing Mead's model of American political behavior in Chapter 1, I argue the McKinley Administration took a largely Jacksonian view of the world where "the most important goal of the U.S. government in both domestic and foreign policy should be the physical security and economic well-being of the American people." Certainly, the desire of McKinley and his supporters to focus first and foremost on economic recovery and growth marked his ascent into office. Where that view deviates from traditional Jacksonian political philosophy is Mead's argument "that the United States should not seek out foreign quarrels but when other nations start war with the United States... there is no substitute for victory." Suffice to say the Spanish had no intention of fighting a conflict with the United States, but its conduct in Cuba, particularly toward the civilian population, along with the dubious circumstances surrounding the sinking of the USS Maine, created a wave of political pressure from the likes of Hearst and Pulitzer that was simply too strong for McKinley to resist. The conflict in the Philippines on the other hand, demonstrated the Jacksonian willingness to achieve total victory (Fig. 2.5).

As for the war itself, the Americans certainly achieved their political and grand strategic objectives. Looking back at Beaufre's model, his "*Ends Critical, Means Decisive*" principle seems most appropriate when describing the American effort – "when the objectives" are vital and military resources are strong, complete victory on the battlefield is feasible. Destroying enemy armed forces may suffice, even if enemy interests are vital, although hostile territory sometimes must be occupied. Unfortunately, if victory is not rapid, costly stalemate may produce decisions "only after a prolonged

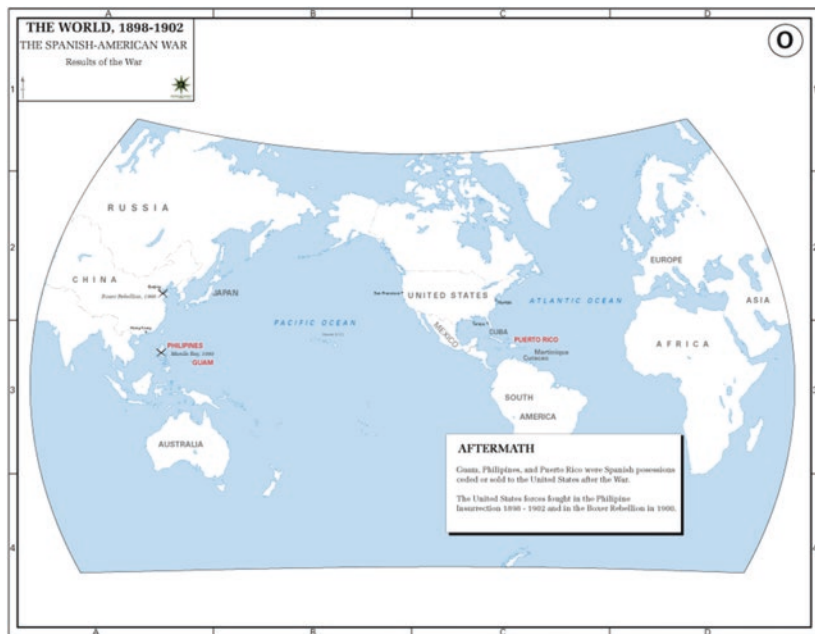


Fig. 2.5

period of mutual attrition out of all proportion to the issue at stake.” As Beaufre notes, the United States had no trouble dispatching conventional trained Spanish soldiers and sailors in a limited war type of situation; however, the length and intensity of the four year insurrection in the Philippines surprised American political and military leaders.

As for the Spanish, Beaufre’s *Ends and Means Both Limited* option appears most appropriate, “when available resources are inadequate to create a credible threat or the enemy deterrent is discouraging, political, economic, or psychological pressures may supplant force successfully, provided the goal is modest or appears to be. This ploy is most suitable when military freedom of action is cramped.” The Spanish had little to no chance to win the war given their lack of political will, inferior force structure and technology, and financial weakness.

For the Filipinos, meanwhile, Beaufre’s *Ends of Variable Consequence, Means Minimal* strategy seems most applicable—“when freedom of action is great but the means are insufficient to secure a decision, protracted

struggle at a low level may suffice. This gambit demands strong motivation, great moral endurance and highly developed national solidarity. It has been displayed to advantage in revolutionary wars, where the issues at stake were far greater importance to one side than the other.” Certainly, the Filipinos put up a fierce resistance as Brian Linn has noted, but in the end, faced with superior resources and the political determination to see the operation through, the native fighters, like their conventional counterparts in the Spanish forces, had little to no chance of overcoming the Americans.<sup>64</sup>

## WAYS

The United States achieved its operational and tactical goals but perhaps not in the manner originally intended. Up until the Spanish–American War, U.S. strategy had been defensive in nature as exemplified by the Monroe Doctrine. After the war, strategy became much more offensively oriented now that the United States, like the Europeans, possessed overseas colonies that would need protection; hence, the development of a navy second in strength only to that of Great Britain. Moreover, a strident debate broke out between those who believed the United States should pursue a limited strategy and abandon the Philippines and others, who having tasted the spoils of imperialism, felt the United States should maintain its overseas colonies.

## MEANS

### *Post War Fiscal and Debt Policy*

Once again, internal revenue supplanted as the major source of government revenue on a percentage basis, although both increased during the duration of the war.<sup>65</sup> Meanwhile, the bulk of wartime outlays were expended upon the Army as might be expected, given the outlays on naval forces from 1880 to 1897. However, veteran’s compensation continued at a very high level, although these expenditures appeared to be leveling off by the end of the war.<sup>66</sup> Still, despite this upsurge in military spending beginning in 1898, the United States experienced no major difficulties in financing the war; substantial deficits incurred during the first two years of the year rapidly morphed into budget surpluses after conventional hostilities had ended (Tables 2.6, 2.7, 2.8, and 2.9).<sup>67,68,69,70</sup>



**Table 2.6**

<i>Year</i>	<i>Individual income taxes (%)</i>	<i>Other internal revenue (%)</i>	<i>Customs (%)</i>	<i>Sale of public lands (%)</i>	<i>Other (%)</i>	<i>Total receipts (%)</i>
1898	0.0%	53.0%	40.0%	0.3%	6.7%	100.0%
1899	0.0%	52.1%	41.1%	0.5%	6.3%	100.0%
1900	0.0%	52.3%	40.6%	0.5%	6.6%	100.0%
1901	0.0%	48.3%	45.2%	0.7%	5.7%	100.0%
1902	0.0%	50.0%	41.0%	0.5%	8.5%	100.0%
Average	0.0%	51.1%	41.6%	0.5%	6.8%	100.0%

**Table 2.7**

<i>Year</i>	<i>Department of the Army (%)</i>	<i>Department of the Navy (%)</i>	<i>Veterans compensation (%)</i>	<i>Interest on the public debt (%)</i>	<i>Other (%)</i>	<i>Total outlays (%)</i>
1898	21%	13%	33%	8%	24%	100%
1899	38%	11%	23%	7%	22%	100%
1900	26%	11%	27%	8%	29%	100%
1901	28%	12%	27%	6%	28%	100%
1902	23%	14%	29%	6%	28%	100%
Average	27%	12%	28%	7%	26%	100%

**Table 2.8**

<i>Year</i>	<i>Total receipts (\$)</i>	<i>Total expenditures (\$)</i>	<i>Surplus/deficit (\$)</i>
1899	\$405,321	\$443,369	(\$38,048)
1900	\$515,961	\$605,072	(\$89,111)
1901	\$567,241	\$520,861	\$46,380
1902	\$587,685	\$524,617	\$63,068
1903	\$562,478	\$485,234	\$77,244
Average	\$527,737	\$515,830	\$11,906

### *Post-War Mobilization Policy*

Looking at Koistinen's four factors of economic mobilization, while many observers point to the influence of the national media on the politics surrounding the Spanish–American War, I argue the most important factor was

**Table 2.9**

<i>Year</i>	<i>Interest expense (\$)</i>	<i>Total debt (\$)</i>	<i>Interest expense as a % of total debt</i>
1898	\$2,349	\$1,796,531	0.1%
1899	\$3,202	\$1,991,927	0.2%
1900	\$2,772	\$2,136,961	0.1%
1901	\$3,490	\$2,143,326	0.2%
1902	\$3,189	\$2,158,610	0.1%
Average	\$3,000	\$2,045,471	0.1%

the change in military technology (Table 2.9). Certainly, the invention of the machine gun barbed wire and other land oriented technologies presaged the carnage of World War One, but the overriding advancements in military technology took place in the naval arena, beginning in the 1880s. Ironclad vessels had made their appearance during the Civil War, as popularized by the battle between the USS Monitor and the CSS Virginia (also known as the Merrimack), but by the end of the century, advancements in protection and weapons technology had made ocean going armored warships not only a reality but rather commonplace among the fleets of the world, in turn, sparking massive and expensive naval arms races.<sup>71</sup>

## NOTES

1. Paul Koistinen, *Mobilizing for Modern War: The Political Economy of American Warfare, 1865–1919* (Lawrence, KS: University Press of Kansas, 1997), 12–13; The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/showelection.php?year=1896>, accessed June 6th, 2014.
2. Michael Golay, *The Spanish-American War* (New York: Chelsea House Publishers, 2010), xi–xii, 8–9; David F. Trask, *The War with Spain, 1898* (Lincoln, NE: University of Nebraska Press, 1996), 13–14.
3. Golay, *The Spanish-American War* (New York: Chelsea House Publishers, 2010), xi–xii, 8–9; Trask, *The War with Spain, 1898* (Lincoln, NE: University of Nebraska Press, 1996), 13–14.
4. Yale University, Lilian Goldman Law Library, *The Monroe Doctrine: December 2nd, 1823*, [http://avalon.law.yale.edu/19th\\_century/monroe.asp](http://avalon.law.yale.edu/19th_century/monroe.asp), accessed August 15th, 2014.

5. Golay, *The Spanish-American War*, xii–xiii, 1–3, 39; Hugh Rockoff, *America's Economic Way of War: War and the U.S. Economy from the Spanish-American War to the Persian Gulf War* (Cambridge, UK: Cambridge University of Press, 2012), 73; Trask, *The War with Spain*, 1898, 2–6, 45–51.
6. Ernest and Trevor Dupuy, *Encyclopedia of Military History from 3500 B.C. to the Present* (New York: Harper and Row, 1970), 1970, 820–821.
7. Ibid, 822–824.
8. Ibid, 821–822.
9. Ibid, 822–823.
10. Ibid, 824–825.
11. Trask, *The War with Spain, 1898*, 148–149.
12. Golay, *The Spanish-American War*, 55, 61, 53; Wilbur D. Jones, *Arming the Eagle: A History of U.S. Defense Acquisition since 1775* (Fort Belvoir, VA: Defense Systems Management Press), 160; Emory Upton, *The Military History of the United States since 1775* (Washington, DC: Government Printing Office, 1917); U.S. Army Center of Military History, *American Military History, Volume One: The United States Army and the Forging of a Nation, 1775–1917* (Washington, DC: Center for Military History, United States Army), 313–317.
13. Rockoff, *America's Economic Way of War*, 2012, 73; Trask, *The War with Spain*, 1898, 73, 148–149.
14. Central Intelligence Agency Fact Book, <https://www.cia.gov/library/publications/the-world-factbook/geos/rp.html>, accessed August 15th, 2014.
15. Koistinen, *Mobilizing for Modern War*, 58.
16. Koistinen, *Mobilizing for Modern War*, 35, 58. Jones. *Arming the Eagle*, 129–152.
17. Jones, *Arming the Eagle*, 131.
18. U.S. Business Cycle Expansions and Contractions (Boston, MA: National Bureau of Economic Research), <http://www.nber.org/cycles.html>, accessed August 14th, 2014.
19. Davis R. Dewey, *Financial History of the United States* (New York: Longman Green, 1903), 457–465; U.S. House of Representatives,

- The McKinley Tariff of 1890*, <http://history.house.gov/Historical-Highlights/1851-1900/The-McKinley-Tariff-of-1890/>, accessed August 14th, 2014; Library of Congress, U.S. Statutes at Large, 55th Cong., 1st sess., 151–213, [http://www.constitution.org/uslaw/sal/030\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/030_statutes_at_large.pdf), accessed June 24th, 2014.
20. United States. Bureau of the Census. “Volume 2” in *Historical Statistics of the United States: Colonial Times to 1970* (1975). <https://fraser.stlouisfed.org/title/?id=237#!5808>, accessed on January 6, 2015.
  21. United States. Bureau of the Census. “Volume 2” in *Historical Statistics of the United States: Colonial Times to 1970* (1975). <https://fraser.stlouisfed.org/title/?id=237#!5808>, accessed on January 6, 2015.
  22. United States. Bureau of the Census. “Volume 2” in *Historical Statistics of the United States: Colonial Times to 1970* (1975). <https://fraser.stlouisfed.org/title/?id=237#!5808>, accessed on January 6, 2015.
  23. United States. Bureau of the Census. “Volume 2” in *Historical Statistics of the United States: Colonial Times to 1970* (1975). <https://fraser.stlouisfed.org/title/?id=237#!5808>, accessed on January 6, 2015.
  24. Library of Congress. <http://www.loc.gov/rr/program/bib/our-docs/Compromise1850.html>, Library of Congress, U.S. Statutes at Large, 51st Cong., 1st sess., 567–625, [http://www.constitution.org/uslaw/sal/026\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/026_statutes_at_large.pdf), accessed June 24th, 2014.
  25. United States. Department of the Treasury. “Annual Report of the Secretary of the Treasury on the State of the Finances for the Year 1897,” *Annual Report of the Secretary of the Treasury on the State of the Finances* (1897). <https://fraser.stlouisfed.org/title/?id=194#!5543>, accessed on January 17, 2015.
  26. United States. Department of the Treasury. “Annual Report of the Secretary of the Treasury on the State of the Finances for the Year 1897,” *Annual Report of the Secretary of the Treasury on the State of the Finances* (1897). <https://fraser.stlouisfed.org/title/?id=194#!5543>, accessed on January 17, 2015.
  27. United States. Bureau of the Census. “Volume 2” in *Historical Statistics of the United States: Colonial Times to 1970* (1975). <https://fraser.stlouisfed.org/title/?id=237#!5808>, accessed on January 6, 2015.

28. The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/ws/index.php?pid=29538&st=McKinley&st1=>, accessed July 2nd, 2014.
29. Dupuy and Dupuy, *Encyclopedia of Military History*, 907, 914.
30. Golay, *The Spanish-American War*, 21; Carl Plehn, *Finances of the United States during the Spanish-American War*, (University of California: Berkeley, California, 1898), 430; Rockoff, *America's Economics Way of War*, 48; Library of Congress, U.S. Statutes at Large, 55th Cong., 2nd sess., 274, [http://www.constitution.org/uslaw/sal/030\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/030_statutes_at_large.pdf), accessed June 24th, 2014.
31. Golay, *The Spanish American War*, 23; Trask, *The Spanish American War*, 50, 52–53; The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/ws/index.php?pid=103901&st=McKinley&st1=>, accessed July 2nd, 2014; Library of Congress, U.S. Statutes at Large, 55th Cong., 2nd sess., 738–739, [http://www.constitution.org/uslaw/sal/030\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/030_statutes_at_large.pdf), accessed June 24th, 2014.
32. Library of Congress, U.S. Statutes at Large, 55th Cong., 2nd sess., 361–362, [http://www.constitution.org/uslaw/sal/030\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/030_statutes_at_large.pdf), accessed June 24th, 2014.
33. The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/ws/index.php?pid=69217&st=McKinley&st1=>, accessed July 2nd, 2014.
34. Trask, *The Spanish-American War*, 109; Library of Congress, U.S. Statutes at Large, 55th Cong., 2nd sess., 364, [http://www.constitution.org/uslaw/sal/030\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/030_statutes_at_large.pdf), accessed June 24th, 2014; The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/ws/index.php?pid=69206&st=McKinley&st1=>, accessed July 2nd, 2014.
35. Dupuy and Dupuy, *Encyclopedia of Military History*, 907; Brian McAllister Linn, *The Philippine War, 1899-1902*, (Lawrence, KS: University Press of Kansas, 2000), 21; Trask, *The Spanish-American War*, 398, 402, 404.
36. U.S. Military Academy, Department of History, <http://www.westpoint.edu/history/SiteAssets/SitePages/Spanish%20American%20War/SAW02AtlanticNavalOps.gif>, accessed June 1st, 2014.
37. Dupuy and Dupuy, *Encyclopedia of Military History*, 907.

38. U.S. Military Academy, Department of History, <http://www.westpoint.edu/history/SiteAssets/SitePages/Spanish%20American%20War/SAW01SpanishDispositions.gif>, accessed June 1st, 2014.
39. Dupuy and Dupuy, *Encyclopedia of Military History*, 908.
40. U.S. Military Academy Department of History, <http://www.westpoint.edu/history/SiteAssets/SitePages/Spanish%20American%20War/SAW07NavalOpsManila.gif>, accessed June 1st, 2014.
41. Dupuy and Dupuy, *Encyclopedia of Military History*, 907; Linn, *The Philippine War, 1899–1902*, 21; Trask, *The Spanish-American War*, 398, 402, 404.
42. Linn, *The Philippine War, 1899–1902*, 21–22.
43. Ibid, 21–22.
44. U.S. Military Academy, Department of History, <http://www.westpoint.edu/history/SiteAssets/SitePages/Spanish%20American%20War/SAW02AtlanticNavalOps.gif>, accessed June 1st, 2014.
45. U.S. Military Academy, Department of History, <http://www.westpoint.edu/history/SiteAssets/SitePages/Spanish%20American%20War/SAW02AtlanticNavalOps.gif>, accessed June 1st, 2014.
46. U.S. Military Academy, Department of History, <http://www.westpoint.edu/history/SiteAssets/SitePages/Spanish%20American%20War/SAW02AtlanticNavalOps.gif>, accessed June 1st, 2014.
47. U.S. Military Academy, Department of History, <http://www.westpoint.edu/history/SiteAssets/SitePages/Spanish%20American%20War/SAW05SantiagoNoon1July.gif>, accessed June 1st, 2014.
48. Dupuy and Dupuy, *Encyclopedia of Military History*, 908.
49. Dupuy and Dupuy, *Encyclopedia of Military History*, 908.
50. Linn, *The Philippine War, 1899–1902*, 30.
51. Linn, *The Philippine War, 1899–1902*, 30.
52. The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/ws/index.php?pid=103901&st=McKinley&st1=>, accessed July 2nd, 2014.
53. United States. Department of the Treasury. “Annual Report of the Secretary of the Treasury on the State of the Finances for the Year 1898,” *Annual Report of the Secretary of the Treasury on the State*

- of the Finances* (1898). <https://fraser.stlouisfed.org/title/?id=194#15544>, accessed on January 17, 2015.
54. Dupuy and Dupuy, *Encyclopedia of Military History*, 908.
  55. Linn, *The Philippine War, 1899–1902*, 30–33.
  56. Dupuy and Dupuy, *Encyclopedia of Military History*, 867–868; Linn, *The Philippine War, 1899–1902*, 42–52, 149, 190–195.
  57. Dewey, *Financial History of the United States*, 468–469; Library of Congress, U.S. Statutes at Large, 56th Cong., 1st sess., 45, [http://www.constitution.org/uslaw/sal/031\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/031_statutes_at_large.pdf), accessed June 24th, 2014.
  58. Linn, *The Philippine War, 1899–1902*, 239.
  59. The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/showelection.php?year=1900>, accessed June 6th, 2014.
  60. Linn, *The Philippine War, 1899–1902*, 213–214.
  61. Ibid, 214.
  62. Ibid, 219; The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/ws/index.php?pid=69569&st=Theodore+Roosevelt&st1=>, accessed July 2nd, 2014.
  63. U.S. Military Academy, Department of History, <http://www.westpoint.edu/history/SiteAssets/SitePages/Spanish%20American%20War/SAWOverviewAftermath.gif>, accessed June 1st, 2014.
  64. Linn, *The Philippine War, 1899–1902*, 322–328.
  65. United States. Bureau of the Census. “Volume 2” in *Historical Statistics of the United States: Colonial Times to 1970* (1975). <https://fraser.stlouisfed.org/title/?id=237#15808>, accessed on January 6, 2015.
  66. United States. Bureau of the Census. “Volume 2” in *Historical Statistics of the United States: Colonial Times to 1970* (1975). <https://fraser.stlouisfed.org/title/?id=237#15808>, accessed on January 6, 2015.
  67. United States. Bureau of the Census. “Volume 2” in *Historical Statistics of the United States: Colonial Times to 1970* (1975). <https://fraser.stlouisfed.org/title/?id=237#15808>, accessed on January 6, 2015.

68. United States. Bureau of the Census. "Volume 2" in *Historical Statistics of the United States: Colonial Times to 1970* (1975). <https://fraser.stlouisfed.org/title/?id=237#!5808>, accessed on January 6, 2015.
69. United States. Bureau of the Census. "Volume 2" in *Historical Statistics of the United States: Colonial Times to 1970* (1975). <https://fraser.stlouisfed.org/title/?id=237#!5808>, accessed on January 6, 2015.
70. United States. Bureau of the Census. "Volume 2" in *Historical Statistics of the United States: Colonial Times to 1970* (1975). <https://fraser.stlouisfed.org/title/?id=237#!5808>, accessed on January 6, 2015.
71. United States. Bureau of the Census. "Volume 2" in *Historical Statistics of the United States: Colonial Times to 1970* (1975). <https://fraser.stlouisfed.org/title/?id=237#!5808>, accessed on January 6, 2015.



# The War to End All Wars: Wilsonian Democracy and Resourcing World War One

## ENDS

### *Pre-War Political Culture*

Woodrow Wilson entered office in 1912 on the back of an overwhelming victory in both the popular and electoral vote.<sup>1</sup> In doing so, he came to power in a world totally alien to his political philosophies. The Wilsonian Democrats professed a strong interest in human rights and above all detested war as an instrument of political policy. In a sense, they saw themselves as modern day missionaries with a desire to make the world a better place for democratically elected governments. However, much like the Jeffersonian Republicans before them, the Wilsonian Democrats found that their quasi-utopian world outlook would soon collide with the reality of modern politics. To that end, the major foreign policy issue confronting Wilson upon entering office was the strident debate over war preparedness. In other words, to what lengths should the new administration go in terms of protecting American national security while at the same time appeasing a substantial part of its political base that steadfastly opposed any involvement in a foreign war.<sup>2,3</sup>

By 1914, Europe had evolved into two heavily armed camps (Fig. 3.1). The Triple Entente, composed of Britain, France, and Russia constituted the first group. Under the terms of their partnership, France would come



Fig. 3.1

to Russia's aid and vice versa. Britain would lend assistance to France if the two determined their vital interests were being threatened by a third party, in other words, Germany. The opposing camp, the Triple Alliance, consisted of Germany, Austria-Hungary, and Italy. In the event one of the three was attacked by two other states, all would go to war together. In sum, the lines were drawn for what was to become the largest and bloodiest conflict the world had seen to that point.

## WAYS

### *Pre-War Military Strategy*

Perhaps the most important influence on warfare prior to World War One was the development of a formal planning process conducted under the auspices of the general staff system. Germany's success in its wars of unification against Denmark (1864), Austria (1866), and France (1871) had proven the worth of such a concept. All of the major European powers had more or less adopted systems similar to that of Germany although Great Britain and the United States did so less enthusiastically, in large part due to the civilian oriented nature of their political systems. However, in the end, both countries followed the example of their peers after less than optimum military performances (the British in South Africa and the Americans in the Spanish-American War) and pursued military reforms designed to bring them up to the standard set by the Germans.

The U.S. Navy had successfully restructured itself prior to the Spanish-American War into the world's second most powerful force in the World behind the Royal Navy; however, the Army was in need of serious reforms. These reforms were initiated in 1899 by Secretary of War Elihu Root. Root, befitting his background as a corporate lawyer, based his reforms on achieving a more efficient administrative structure, much as a modern day chief executive officer (CEO) might. He quickly came to the conclusion that the major cause of the Army's dysfunctional performance in the Spanish-American War lay in the relationship between the Secretary of War and the Commanding General of the Army. The commanding general had responsibility for troops in the field, while the Secretary managed the day-to-day administrative and fiscal functions of the service. The major beneficiaries of this division of power were the various bureaus in the Department of the Army.<sup>4</sup>

Root proposed to eliminate the position of the commanding general and replace him with a chief of staff, who, reporting through the Secretary of War, would serve as the President's primary ground force adviser. This would also ensure continued civilian control of the military. At the same time, he also wanted to consolidate a number of the bureaus, who, as bureaucracies tend to do, fought this approach. With the passage of the 1903 Militia Act, Congress largely granted Root's proposed reforms, with the exception of the bureau consolidation. The legislation also codified the conditions under which the various National Guard units could be placed under federal control.<sup>5</sup> In addition to these changes, Root realized that the culture of the Army needed to change as well. To that end, in 1901, he appointed an ad hoc group of senior officers to a War College board with the intent of having them act as an informal general staff. In November, 1903, the Army War College was formally established with the idea of creating an academic institution that prepared students to examine War Department operations as well assume more senior commands in the field. In actuality, the students spent much of their time in war planning.<sup>6</sup>

The results of the various war plans would soon become evident. Based on the development of the European rail network, all the potential combatants relied on being able to rapidly transfer troops from one battle zone to another quickly. While this provided operational and tactical mobility on the battlefield, these plans became a strategic liability in that they generally relied on inflexible railroad timetables prior to and during mobilization. In other words, once war had been declared and the plans implemented, there was no turning back for fear an adversary might gain an advantage, however slight. To that extent, the situation was similar to the deployment of ballistic nuclear missiles during the Cold War in that once launched they could not be recalled. (Fig. 3.1).<sup>7</sup>

The best examples of these preparations were the Schlieffen Plan, Plan Seventeen, and the Russian Mobilization Plans Eighteen and Nineteen. The Schlieffen Plan, named after the former head of the German General Staff, Alfred Von Schlieffen, who developed the concept, recognized the explicit difficulty associated with Germany's geographical position; that is, being situated between France and Russia. With that in mind, the plan called for seven eighths of the German Army to be deployed in an all-out effort in a drive through neutral northern Belgium to defeat the French before the Russians could mobilize and engage in a war of attrition, a conflict Germany was destined to lose. However, to do so meant overcoming a

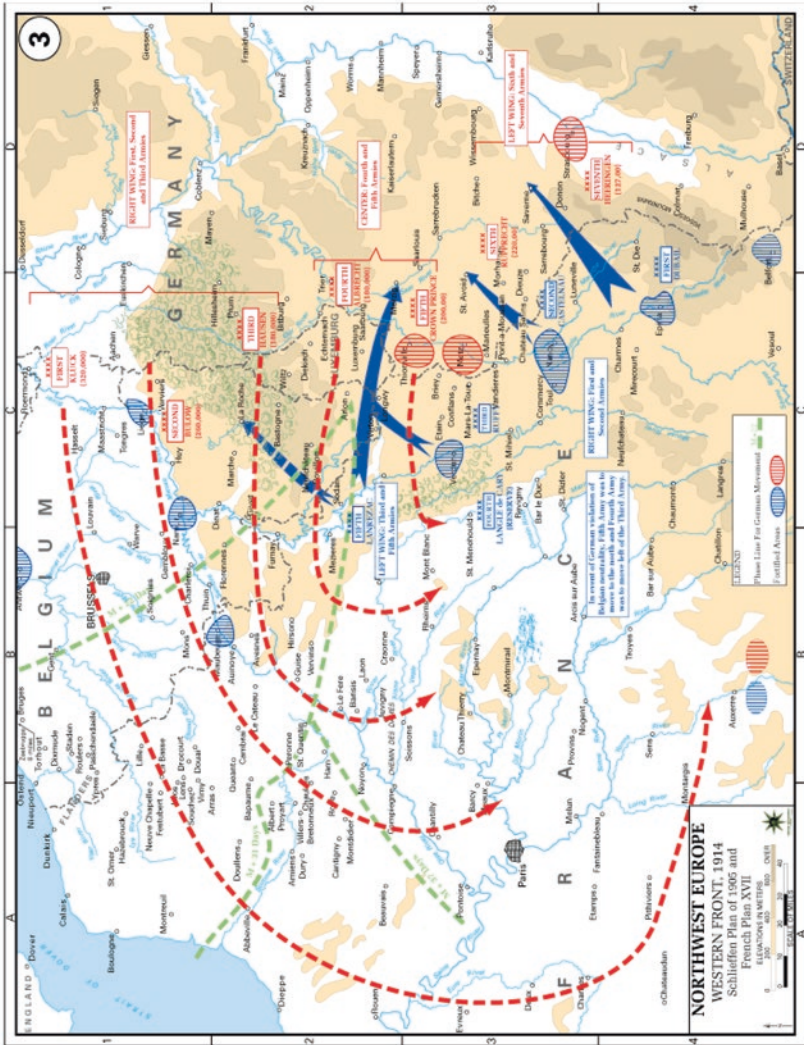


Fig. 3.2

number of obstacles. First, would the British intervene and if so, how soon could they deploy an expeditionary force to the continent? Second was the matter of dealing with the substantial number of French fortifications. Finally, and perhaps most importantly, would the Belgians resist given the violation of their territory?<sup>8</sup> The nature of Germany's geography created problems in the naval arena as well. As the map indicates, Germany only had narrow access to the North Sea between the Netherlands and Denmark. Moreover, the cost of maintaining a large land force precluded the Germans from matching the British one for one in the deployment of capital ships.

Plan seventeen was the French counter response to the Schlieffen Plan. The plan made several critical assumptions. First, being deficient in numbers to the Germans, the French opted for active formations with no plan to incorporate reservists, a key tenet of German doctrine. The plan also called for the French Army to take the offensive on the frontier, generally disregarding the possibility of a German advance through neutral Belgium, on the grounds the Germans would never be so foolish to risk diplomatic isolation by violating Belgian territory, which was exactly what the Schlieffen Plan called for. However, neither the British nor the French were willing to entirely discount the possibility of a violation of Belgian neutrality; as such, the two general staffs discussed the deployment of a British expeditionary force (BEF) to assume a position of the far left flank of the French forces closest to the English Channel.<sup>9</sup>

The Russians likewise developed a set of mobilization plans, dubbed Plans Eighteen and Nineteen. Plan Eighteen, first developed in 1909, called for an offensive but only after identifying the nature and direction of the threat (Germany or Austria) and completing the call up of reserves. Plan Nineteen, written a year later, accepted the threat would most likely come from Germany, forcing the abandonment of most of Russian ruled Poland. Eventually however, two variants of the plan were eventually developed: Plan A called for operations against Austria, while Plan B dealt with Germany. As was the case with France however, Russia would be slower to mobilize its reserves than Germany, due to the nature of Russian geography. On the one hand, while the geographic remoteness of the country served valuable wartime purposes before, such as the abortive campaigns waged by Napoleon a hundred years before and Hitler nearly thirty years in the future, it also meant Russia needed more time to gather reserve troops. On the other hand, the Russians could afford to give up territory to an extent only dreamed of by France.<sup>10</sup>

The other major combatants had also put mobilization plans in place as well. The Austrians had reconciled with the Germans following the war of 1866, in which Germany had taken over leadership of the Germanic speaking states of Central Europe. They initially assumed Germany would defend against France while attacking Russia first in a two front war; the Austrians would then commence operations against Russian ruled Poland. The Austrians had another strategic problem however: Serbia. If the Austrian became embroiled in a war with the Serbs, the threat of Russian intervention could not be disregarded. In that case, the Austrians would then face an enemy to their south and therefore unable to support the Germans in the north.<sup>11</sup>

Traditionally, the British traditionally tried to avoid large scale entanglements on the continent in favor of pursuing a maritime strategy designed to protect the flow of commerce from her overseas colonies. Instead, given their superior economic and financial resources, the British would usually opt to pay subsidies to hire mercenary units (e.g., the Hessians in the American Revolution) to fight in their place. By the time of World War One, however, this strategy was no longer viable. The British were then faced with two potential strategic choices. First, they could pursue a “strategy of diversion,” whereby they would land troops on the German coast in an effort to coax the German High Seas fleet out of their bases and into open water where, in Mahanian fashion, they could engage them in a major sea battle. That battle did occur on May 31 and June 1, 1916 at Jutland but did not result in the destruction of the German fleet; rather the battle ended in a tactical draw. However, from a strategic standpoint, it was a British victory in that the High Seas fleet never again left its anchorages during the war. The other potential strategic avenue the British could pursue was a “strategy of concentration” by sending an expeditionary force to France to operate at the far end of the French left flank, as described earlier. In the end, the British opted for the strategy of concentration.<sup>12</sup>

Great Britain historically had employed economic warfare as an integral part of its military strategy. During the American Revolution, the Napoleonic Wars, and the War of 1812, for example, Britain utilized the Royal Navy to blockade enemy ports and disrupt their trade. Now, the British government once again sought to use its naval power as leverage, in this case, against its most likely foe, Germany. However, the British sought not merely to disrupt her trade but to apply enough pressure to cause the total collapse of Germany’s economy. This strategy had its roots in the 1880s when the British media and public began questioning the

ability of the Royal Navy to protect commerce, given that few new warships had been built. The development of the Dreadnought battleship program was the response to these concerns, despite the fact it kicked a naval arms race between not only the European powers but also the United States and Japan; Table 3.1 detailing the relative strength of each potential combatant's merchant fleet provide an indication of the importance of overseas trade to the British economy.<sup>13,14</sup>

To that end, in 1907, the government of Prime Minister Sir Henry Campbell-Bannerman considered four potential options for accomplishing this task, each with advantages and drawbacks. First was the use of a "distant" blockade strategy that sought to employ economic pressure as a strategically decisive weapon. However, it was believed, this might not be a sufficiently aggressive strategy to satisfy French desires for a more direct British involvement on the continent. There was also the question of whether such a strategy met the legal definition of a blockade as then defined by international law. Finally, what was to stop neutral shipping from stopping in Dutch or Danish ports, whereby goods could then be transshipped overland to Germany? The second option called for the imposition of a close commercial blockade along the coast, supplemented by sinking block ships in front of German ports in an effort to hinder the free passage of German naval forces into the North Sea. However, this option, while not causing material damage to the German economy, increased the risks to the Royal Navy. The third option was an extension of the second, the difference being the blockade would be supplemented by an amphibious assault on the German coast. It too suffered from the same drawbacks as the second. The fourth and final option called for the redeployment of the Royal Navy from its traditional operational area in the North Sea to the Baltic Sea. However, utilizing this option would require British forces to operate within easy range of their German counterparts.<sup>15</sup>

While each British strategic option had its drawbacks, the French were under no illusion about what options might be available to them. Still reeling from defeat by the Germans in 1870, the French faced a foe that possessed greater numbers than themselves on several important fronts—population, economic strength, and perhaps most importantly, military force. They were also well aware that Germany, geographically sandwiched between two intractable enemies, believed that she needed to strike first and hard to avoid being overwhelmed. As for the United States, while the debate over preparedness continued, there was a substantial body of opinion that believed it was in the best interests of the United States to



**Table 3.1**

<i>Flag</i>	<i>3,000-4,000 GRT</i>	<i>% of total</i>	<i>Flag</i>	<i>4,000-5,000 GRT</i>	<i>% of total</i>	<i>Flag</i>	<i>5,000-7,000 GRT</i>	<i>% of total</i>	<i>Flag</i>	<i>7,000-10,000 GRT</i>	<i>% of Total GRT</i>	<i>% of total merchant ships</i>
Britain	1,152	66%	Britain	933	68%	Britain	558	52%	Britain	280	62%	63%
United States	97	6%	United States	67	5%	United States	104	10%	United States	23	5%	6%
France	59	3%	France	48	4%	France	86	8%	France	19	4%	6%
Japan	106	6%	Japan	41	3%	Japan	55	5%	Japan	15	3%	5%
Italy	102	6%	Italy	52	4%	Italy	35	3%	Italy	19	4%	5%
Netherlands	71	4%	Netherlands	30	2%	Netherlands	61	6%	Netherlands	19	4%	4%
Norway	42	2%	Norway	47	3%	Norway	20	2%	Norway	5	1%	2%
Germany	122	7%	Germany	150	11%	Germany	159	15%	Germany	71	16%	11%
Total	1,751	100%	Total	1,368	100%	Total	1,078	100%	Total	451	100%	100%

*Source:* U.S. Department of Commerce Annual Report of the Commissioner of Navigation for the Fiscal Year Ended June 30, 1915., Lambert, Armageddon, 239

intervene on behalf of the British and French. The specter of German submarines menacing American trade was not a palatable one for many American policy makers. By the same token, however, the prospect of the Royal Navy interdicting American commerce, as it had during the Revolution and the War of 1812, was equally disquieting as well. Unlike the Europeans, American mobilization plans were characterized by multiple overlapping agencies, petty jealousies between the military services, in particular, the War Department, and a general lack of understanding of modern mobilization methods. There was also a lack of enthusiasm within the administration and the military about creating a framework that would permanently institutionalize mobilization planning beyond that being done by the armed services.

### *Pre-War Operational Strategy*

By the advent of World War One, the armies of the major powers had vastly improved their operational capabilities in several areas such as being able to overcome modern fortifications, mobilizing and moving vast numbers of troops from their home regions no matter how remote to the frontier in a relatively timely manner using the rail system, and, finally, creating an environment based on advancements in small arms and artillery that had the potential to devastate enemy formations deployed in concentrated large numbers. What they had not been able to accomplish was equally important. For example, once troops reached the frontier railheads, moving to the battlefield on foot was a problem. Communication systems also had yet to evolve to the point where the chain of command could issue directions to lower formations in a timely manner. In particular, timely coordination between infantry and artillery units was critical, given that tactically, ground forces would only advance upon the conclusion of a massive artillery barrage.<sup>16</sup>

At sea, the British found themselves confronted for the first time in a long while by another European power that sought to break the UK stranglehold on the high seas. At the 1907 Hague Peace Conference, where some thirteen separate treaties were signed on the future conduct of warfare, the British attempted to limit the growth in naval armaments but were turned back by the Germans among others who saw this as a blatant attempt to restrict the size of their respective fleets.<sup>17</sup> As the order of Battle before the confrontation at Jutland in 1916 indicated, at the beginning of the war, the German High Seas Fleet, although less than half the size of

the Grand Fleet, still presented a major threat to continued British naval domination. The other interesting point is that despite the lavish attention naval historians devote to the story of the Dreadnought series of battle-ships, the vast majority of the ships in both fleets at the beginning of the war were destroyers.<sup>18</sup>

### *Pre-War Tactics*

The pre-war operational and tactical doctrines in Europe focused on seizing and maintaining the initiative in combat. The most ardent proponent of the doctrine of the offensive were the French, as exemplified by the commandant of the Ecole Supérieure de la Guerre (essentially the French equivalent of the U.S. Army War College), General Ferdinand Foch. While not disregarding the advantages of increased firepower, Foch believed that an undying will to win was equally important. However, this doctrine was taken to an extreme by other military strategists in the French Army, whereby that an attack at any time, no matter the strength of the defense, was preferable to doing nothing. This thinking doomed millions of young men on both sides to premature deaths in the trenches of World War One. Despite the lessons learned from the Russo-Japanese War of 1904–1905, where thousands perished in suicidal frontal assaults against entrenched defenses, many soldiers chose to ignore the conclusions drawn by a Polish banker and economist named Ivan Bloch, that, after having studied many of the most authoritative works on military affairs, concluded that modern firepower had rendered a successful war impossible.<sup>19</sup>

## MEANS

### *Pre-War Economic Culture*

As Ernest and Trevor Dupuy noted, on the eve of World War One, “the Napoleonic concept of the nation in arms had been replaced by that of the nation at war.”<sup>20</sup> As a result, the role of economics in warfare was magnified prior to World War One. Given the dramatic increase in the size of armies and navies, the ability to provide these forces with weapons, ammunition, and food became of paramount importance. Without a strong economic base, this would be impossible; the inability of the Russian economy, for example, to support her armies in the field, led

to their eventual defeat at the hands of an outnumbered but better led and equipped German Army on the Eastern Front, resulting in the overthrow of the czarist regime. Still, the cost of maintaining large armed forces caused many to call for disarmament, if not totally, then at least to some degree. However, economically weaker nations such as Russia could not, in the interests of their own national security, afford to fall behind their foreign rivals.

A series of peace conferences were held at the Hague (May–July, 1899 and June–October, 1907) and in London (1908–1909) passed without any agreement on limiting arms. However, these failures did not prevent some observers from expressing the hope that economics could prevent war. In 1912, British journalist Norman Angell published “The Great Illusion: A Study of the Relation of Military Power to National Advantage” in which he argued the strength of the economic relationship between Great Britain and Germany would prevent the outbreak of hostilities between the two. Of course, Angell and others were wrong; within two years, British and German troops were shooting at each other across the trenches of No Man’s Land.<sup>21</sup> As for the United States, it had suffered through a number of economic downturns between the end of the Spanish–American War and World War One. These recessions lasted on average approximately eighteen months (Table 3.2).<sup>22</sup>

### *Pre-War Fiscal Policy*

Prior to the initiation of hostilities, the United States had derived over 90% of its revenue on average from a combination of other internal revenue and customs taxes. From an expenditure standpoint, the armed forces consumed approximately 44% of outlays, supplemented by another

**Table 3.2**

<i>Peak date</i>	<i>Trough date</i>	<i>Peak to trough months</i>
September-1902	August-1904	23
May-1907	June-1908	13
January-1910	January-1912	24
January-1913	January-1914	23
August-1918	March-1919	7
Average		18

24% of associated veteran's compensation. In addition, the country wavered between surpluses and deficits between 1903 and 1914, in part due to financial crises such as that of 1907 (Tables 3.3, 3.4, and 3.5).<sup>23,24,25</sup>

**Table 3.3**

<i>Year</i>	<i>Individual income taxes (%)</i>	<i>Other internal revenue (%)</i>	<i>Customs (%)</i>	<i>Sale of public lands (%)</i>	<i>Other (%)</i>	<i>Total receipts (%)</i>
1903	0%	41%	51%	2%	7%	100%
1904	0%	43%	48%	1%	7%	100%
1905	0%	43%	48%	1%	8%	100%
1906	0%	42%	50%	1%	7%	100%
1907	0%	40%	50%	1%	8%	100%
1908	0%	42%	48%	2%	9%	100%
1909	0%	41%	50%	1%	8%	100%
1910	0%	43%	49%	1%	7%	100%
1911	0%	46%	45%	1%	8%	100%
1912	0%	46%	45%	1%	8%	100%
1913	0%	48%	45%	0%	8%	100%
Average	0%	43%	48%	1%	8%	100%

**Table 3.4**

<i>Year</i>	<i>Department of the Army (%)</i>	<i>Department of the Navy (%)</i>	<i>Veterans compensation (%)</i>	<i>Interest on the public debt (%)</i>	<i>Other (%)</i>	<i>Total outlays (%)</i>
1903	23%	16%	27%	6%	29%	100%
1904	28%	18%	24%	4%	25%	100%
1905	22%	21%	25%	4%	28%	100%
1906	24%	19%	25%	4%	28%	100%
1907	26%	17%	24%	4%	29%	100%
1908	27%	18%	23%	3%	29%	100%
1909	28%	17%	23%	3%	29%	100%
1910	27%	18%	23%	3%	29%	100%
1911	29%	17%	23%	3%	28%	100%
1912	27%	20%	22%	3%	28%	100%
1913	28%	19%	24%	3%	25%	100%
Average	26%	18%	24%	4%	28%	100%

**Table 3.5**

<i>Year</i>	<i>Total receipts (\$)</i>	<i>Total expenditures (\$)</i>	<i>Surplus/deficit (\$)</i>
1903	\$561,881	\$517,006	\$44,875
1904	\$541,087	\$583,660	(\$42,573)
1905	\$544,275	\$567,279	(\$23,004)
1906	\$594,984	\$570,202	\$24,782
1907	\$665,860	\$579,129	\$86,731
1908	\$601,862	\$659,156	(\$57,294)
1909	\$604,320	\$693,774	(\$89,454)
1910	\$675,512	\$693,617	(\$18,105)
1911	\$701,833	\$691,202	\$10,631
1912	\$692,609	\$689,881	\$2,728
1913	\$714,468	\$714,864	(\$396)
Average	\$627,154	\$632,706	(\$5,553)

As war approached, the Wilson administration was forced to confront three central issues: How much money should be borrowed; how much should be raised through taxation and if so, what types of taxes should be levied; and, finally, how should such taxes, such as an income tax, be assessed against individuals? Wilson's political base in the Democratic Party, consisting of populist southerners and progressive northerners, advocated a pay as you go policy, in an attempt to avoid large scale borrowing (Table 3.6). As neo-Jeffersonians, they recalled that the massive debts taken to finance the Civil War had been repaid by regressive tariffs and excise taxes. They were also troubled by the fact that, in their eyes, future generations of low-income Americans had paid the price of servicing these debts, consisting of war bonds mainly purchased by wealthy investors. However, the key political issue was the type of taxes to be levied, in other words, a tariff detrimental to business interests or an income tax penalizing individuals that was anathema to the populists.<sup>26,27</sup>

Tariffs remained an important component of American fiscal policy. On April 9, 1909, Congress passed a new tariff act. Running some 111 pages, the legislation covered a wide variety of sectors.<sup>28</sup> The income tax also remained on the table as well; on June 16, 1909, President William Howard Taft proposed a 2% income tax.<sup>29</sup> Congress followed this up by passing the sixteenth Amendment to the Constitution on February 3, 1913. This amendment allowed Congress to levy an income tax without first apportioning among the states or basing it on an official census. On

**Table 3.6**

<i>Year</i>	<i>Interest on the public debt (\$)</i>	<i>Total debt (\$ million)</i>	<i>Interest as a % of total debt</i>
1903	\$2,349	\$2,202,464	0.1%
1904	\$3,202	\$2,264,003	0.1%
1905	\$2,772	\$2,274,615	0.1%
1906	\$3,490	\$2,337,161	0.1%
1907	\$3,189	\$2,457,188	0.1%
1908	\$3,195	\$2,626,806	0.1%
1909	\$3,300	\$2,639,546	0.1%
1910	\$3,053	\$2,652,665	0.1%
1911	\$3,186	\$2,765,600	0.1%
1912	\$3,375	\$2,868,373	0.1%
1913	\$4,413	\$2,916,204	0.2%
Average	\$3,229	\$2,545,875	0.1%

October 3, 1913, Congress passed the Tariff Act of 1913 (also known as the Underwood Tariff). This act reduced tariffs across the board on a number of items, the first measure to do so since the Civil War.<sup>30</sup>

### *Pre-War Monetary Policy*

In 1913, London was the financial capital of the world, hosting the Bank of England (BOE) and the London Stock Exchange (LSE). It was also the only free market for gold, served as the chief source of funding to facilitate international trade, and was the center of the global communications system. As such, London, as it did with the rest of the world, financed the bulk of American exports. However, there was a strong timing element involved; 30% of the American labor force worked in agriculture. This meant these exports largely took place in the fall once the crops had been brought in from the fields. This seasonal demand for financing, in turn, meant that interest rates tended to spike each fall, decreasing the profitability of the crop. Facing complaints from constituents in agriculturally oriented states, politicians wanted to reduce, if not completely eliminate, these seasonal fluctuations. That, in turn, led to discussions about establishing a U.S. central bank that could expand credit while reducing the seasonality associated with having to finance exports in a foreign market.<sup>31</sup>

In addition, the pre-war banking and financial system was characterized by a major financial crisis in 1907. On October 22, 1907, there was a run on the Knickerbocker Trust, the second largest banking trust in New York,

following a management scandal. Depositors lined up to empty their accounts; within two hours, the trust suspended cash withdrawals and did not reopen for business until March 26, 1908. This, in turn, sparked a downturn at the New York Stock Exchange (NYSE) that was only halted by the personal intervention of J.P. Morgan, the chairman and CEO of the bank of the same name, and other financial institutions that contributed \$25 million to stabilize stock prices.<sup>32</sup>

To that end, just prior to World War One, saw the establishment of the most important financial institution in the United States since the Department of the Treasury in 1789, the U.S. Federal Reserve.<sup>33</sup> At the time, there were two competing schools of thought regarding the establishment of a central bank that hearkened back to the disputes over the chartering of the first and second Banks of the United States (BUS) in the late eighteenth and early nineteenth centuries. On the one hand, proponents argued for a bank based on the BOE model; that is, a central bank owned by commercial banks and run by commercial bankers. They saw three primary advantages in such a system. First, a central bank established in the United States could act to mitigate the seasonal fluctuations caused by the demand for currency and the financing of agriculture discussed above. Second, such a bank would speed the development of a market in commercial paper and bills of exchange that would lessen the dependence on the London markets. Third, even being commercially owned and operated, it could still function as a lender of last resort.<sup>34</sup>

Opponents by contrast were leery of a system dominated by large commercial banks such as J.P. Morgan. At the time, there had been much discussion over anti-trust matters. Many in Congress, particularly those with a populist bent, saw the establishment of large industrial and other trusts as dangerous to the American financial system. The 1913 Pujo Report, named after Congressman Arsene' Pujo of Louisiana, alleged that a small group of bankers, through their control of a number of interrelated financial institutions, had created a "money trust" that, in turn, dominated a number of key industrial sectors, such as manufacturing, mining, telecommunications, and perhaps most importantly, the financial markets themselves.<sup>35</sup>

Wilson considered both of these arguments and developed a solution that appeared to satisfy both sides. He proposed "a public/private partnership with semi-autonomous, privately funded reserve banks supervised by a public board."<sup>36</sup> Under his plan, each of the twelve regional banks representing the various economic sectors in their



region was responsible for managing their own specific portfolios. In particular, one important goal of the plan was to create a central pool of gold reserves that could be utilized in time of emergency (such as helping to fund an unanticipated war).<sup>37</sup> However, he insisted that the Federal Reserve remain an independent entity; this was to cause much friction with the Treasury, particularly when it came to financing World War One, World War Two and Korean wars, for one simple reason; as discussed before, their policy goals were fundamentally incompatible. When looking to raise large sums of money to finance an armed conflict, investors, as they always had, demanded higher interest rates to compensate for the risk they were taking in lending money during a war. To that end, treasury departments in general looked to keep these rates as low as possible for the duration of the conflict. Central banks on the other hand were in the business of monitoring the money supply through changes in interest rates. If the money supply grew too large as a result of the increased economic activity associated with resourcing a war, for example, a central bank could raise rates in order to tamp down the threat of inflation.<sup>38</sup>

Throughout World War One, World War Two and Korean wars, the Treasury and Federal Reserve often clashed over this need to finance the conflict as cheaply as possible versus restraining inflation. However, it is important to note that the Treasury usually came out on top of these disputes, effectively exercising control of American financial policy until 1952, when the Federal Reserve finally was granted true independence from the Treasury. Moreover, there was considerable friction between the Board based in Washington D.C. and the regional banks over the direction of monetary policy, disputes that continue to this day.<sup>39</sup>

At this point, it seems appropriate to define for readers of what a gold standard actually is:

“The gold standard required countries to use monetary policy to keep exchange rates fixed and thus to allow prices, output and unemployment to vary as required by the movements of gold and the country’s exchange rate. Debtor countries had to pay their obligations in gold even if the price of gold rose relative to commodity prices and creditors had to accept gold in settlement if commodity prices rose relative to the price of gold. Exporters and importers had reasonable certainty about the payments they would make or receive, since the rate of inflation remained bounded except in wartime when the standard did not operate.”<sup>40</sup>

Prior to the commencement of combat operations in 1914, fifty nine countries were on the gold standard with one third of the world's reserves held by the French central bank, the Banque de France. Some 60% of the world's gold supply was in the hands of the central banks as reserves. Ironically, despite being the undeniable powerhouse of the world's financial markets, Britain was the one country that did not build up her gold reserves, in part due to her dominant position. British monetary authorities believed this dominance would see the country through any financial crisis. For example, there were alternative sources of gold supplies throughout the empire such as Australia, Canada, and South Africa. While gold supplies would have to travel some distance to reach London, the presence of the Royal Navy ensured this would occur. However, that did not mean the London markets and the BOE were immune to both foreign and domestic pressures on the gold supply. Foreign powers desired gold in exchange for their bills and in the event of a crisis, such as an unanticipated war, citizens could be expected to hoard gold.<sup>41</sup> As for the United States, in addition to the \$150 million gold reserve fund, the country had \$252 million over and above what was required to cover its direct gold liabilities. There was a gold balance in the Treasury of \$1,254 billion in gold and bullion against \$1.026 in outstanding gold certificates.<sup>42</sup>

Domestically, on May 30, 1908, Congress passed the Aldrich-Vreeland Act which authorized \$250 million in new currency secured by municipal and railroad bonds. Under the terms of the legislation, the authority to determine under what circumstances emergency currency could be issued lay with the comptroller of the currency. As a cautionary measure, the bill restricted access to this new source of emergency currency to national banks that had notes equal to half of their capital. There was a great deal of discussion regarding these terms, resulting in a number of amendments to the legislation, before it passed. Among them was a requirement for the Secretary to prepare these notes in advance and sending them to the various Treasury sub-offices for future use. In addition, the \$250 million previously authorized was deemed too small in dealing with a major financial panic; as a result, this amount was doubled to \$500 million.<sup>43</sup>

In the face of stiff opposition from populists who believed the use of railroad bonds as security would benefit the wealthy, the Aldrich Act limited backing of the notes to municipal bonds only. Emergency currency could be issued in an amount equal to 90% of the value of the underlying bonds. Banks and other financial institutions could, by going through their national currency association, pledge commercial paper or other securities

as collateral; however, the bill restricted access to emergency currency to banks possessing notes equal to 40% of their capital. However, the legislation failed to meet its intended goal for two reasons. First, Congress scheduled the legislation to expire on June 30, 1914; war would break out the following month. Not until the passage of the Federal Reserve did Congress extend the emergency date to June 30, 1915. Secondly, Secretary of the Treasury William McAdoo, in order to generate enough interest in using the currency, had to convince Congress to lift the 40% of capital requirement, which finally occurred on August 13, 1913.<sup>44</sup> On December 23, 1913, one of the most important pieces of financial legislation ever proposed was passed: the Federal Reserve Act of 1913.<sup>45,46</sup>

### *Pre-War Debt Policy*

In order to effectively support both peace and wartime operations, it is incumbent on the government to develop a well-managed debt management system. The Confederacy, for example, never mastered this art and it helped cost them the Civil War. Interest rates, issue duration, and taxation were all important and interrelated variables. Interest rates had to reflect the duration of an issue (longer periods of principal and interest repayment require a higher rate of interest), yet still had to be low enough so as not overwhelm the post-war tax system, whose receipts would be used to retire the outstanding debt. Prior to World War One, the American debt burden remained relatively unchanged since the conclusion of the Spanish–American War.

## CHRONOLOGY OF POLITICAL, STRATEGIC/OPERATIONAL, AND RESOURCE MANAGEMENT EVENTS

### *1914*

The tightly wound coil that was Europe in 1914 came undone on June 28, 1914, in Sarajevo, Bosnia in the Austrian-Hungarian Empire. That day, Archduke Franz Ferdinand, the heir to the Austrian throne, and his wife were assassinated by a Serbian nationalist, Gavrilo Princip. Princip and other nationalists were upset that Austrian Hungary had annexed Bosnia and Herzegovina, thus preventing the indigenous population from

uniting with the Kingdom of Serbia. A month later, on July 23, 1914, the Austrian government delivered an ultimatum to the Serbian government, demanding an inquiry into the assassination, led by the Austrians themselves, and the suppression of anti-Austrian movements; that ultimatum was rejected and as a result, on July 28, 1914, the Austrians declared war on Serbia.<sup>47</sup>

It was not long before the market implications became evident. On July 27, 1914, in anticipation of a general war, the major European stock exchanges began shutting down, setting off a tidal wave of securities liquidation, as investors in each market attempted to cash out before the fighting began. On July 28, stocks dropped 3.5% followed by another 6% decline the following day. By contrast, that same day, Wall Street's most senior bankers met at the offices of J.P. Morgan and decided not to close the NYSE.<sup>48</sup> July 31, 1914, was a momentous day. Russia implemented its full mobilization plan, giving the Germans the excuse to do the same. In response, the LSE, finally succumbed to the pressure and ceased operations that day. The BOE promptly doubled its core interest rate from 4 to 8% in order to head off capital flight; moreover, local banks began issuing paper currency only while sending those clients who wished to redeem their investments in gold to the BOE, putting the British gold reserves at risk. Finally, the NYSE shut down as well but not before McAdoo implemented the terms of the Aldrich-Vreeland Act. His goal was to prevent a run on banks, while at the same time obstructing efforts by the BOE to redeem American securities held in London for gold. With the spigot of new currency now flowing, the NYSE did not reopen for trading until December, 1914. In doing so, McAdoo saved the Treasury some \$62 million in gold outflows.<sup>49</sup>

In August, the various combatants began lining up looking to finance what they knew would be an expensive war, even if it only lasted a short time. The primary sources for those financings in order would be Britain and America; the go to bank to arrange these transactions was the most powerful commercial institution in the United States, J.P. Morgan. It did not take long before the bank had evolved into the monopolistic underwriter of French and British war bonds. The French, understanding full well that much of this war would be fought on their soil, were particularly anxious to obtain a \$100 million loan; however, the Wilson administration, uncomfortable about being involved in the conflict even at just a financial level, turned the French request down immediately. The British likewise became more aggressive on the financial front; on August 1, 1914, the BOE again raised its core interest rate from 8 to 10%.<sup>50</sup>

On August 2, 1914, Germany delivered its last ultimatum to Belgium regarding the breach of its neutrality, while at the same, she declared war on France. British Prime Minister Herbert Asquith then authorized the First Sea Lord, Winston Churchill, to bring the Royal Navy to its highest level of combat readiness. The next day, August 3, 1914, the Belgians sent their own ultimatum to the Germans, demanding an immediate cession of all military activity on their soil, which the Germans ignored, commencing their invasion. By nightfall, the British, French, and Russians were at war with Germany. On August 5, 1914, Austria completed the round of mobilizations by declaring war on Russia. Any hope of bringing the situation to a peaceful conclusion passed.<sup>51</sup>

In the meantime, under the original Federal Reserve Act, interest on the emergency notes was to be 5% the first month and an additional 1% each month until a total of 10% had been paid. On August 4, 1914, Congress amended the Act so as to authorize the Secretary of the Treasury to allow national banks to issue an amount of circulating currency equal to 125% of their unimpaired capital and surplus instead of the legal 100%. Soon after, Congress also amended the Aldrich-Vreeland Act. These amendments called for interest of 3% the first month and 1/2% each additional month with a limit of 6% as the maximum payment on the new currency. The 40% of capital requirement was also suspended; the upshot of these two actions was that the amount of national bank notes increased in circulation increased from \$852 million in August to \$1.0 billion by September. McAdoo, taking full advantage of these changes promptly shipped some \$141 million in new currency to banks around the country, hoping to avoid the embarrassment of a few years previous during the Financial Panic of 1907, when financial institutions were forced to suspend convertibility on the grounds they could not satisfy depositors demand for cash.<sup>52</sup> While the Treasury appeared to be moving the right direction, the same could not be said for the Federal Reserve. Despite having been in operations for eight months, the central bank was inoperable for two reasons. First, the confirmation of two of Wilson's nominations to the board had been held up by the Senate Banking Committee. Without a complete board in session, the preparations to open twelve regional banks had fallen badly behind schedule. Perhaps as importantly, some \$50 million of the Treasury's gold reserves had left the country in order to satisfy foreign obligations; leaving them a few points short of their legal reserves, though some bankers attempted to avoid these obligations by citing the suspension of the gold standard by the Europeans once hostilities commenced.<sup>53</sup>

On August 19, 1914, Wilson issued his Message of Neutrality, conveying his deepest desire to keep the United States out of what rapidly becoming a world conflagration.<sup>54</sup> That same day, the first public report detailing the size of American short term obligations payable in London was released. Overall obligations totaled \$500 million, with the city of New York accounting for \$82 million or nearly 20% of the total, coming due January 1, 1915. No one knew what other municipalities or companies might have accessed the European markets on their own but in any case, the \$500 million outstanding in short-term debt would not only deplete the existing gold reserve but leave it another \$200 million in the red.<sup>55</sup>

Realizing the public credit of the city was on the line and regarding New York as “too big and important to fail,” once again on August 20, 1914, J.P. Morgan personally stepped into the breach by asking McAdoo to set up a meeting with the Federal Reserve to discuss potential solutions to the New York City problem, including a plan he and the New York City Comptroller’s office had developed to repay the obligation on time. The detail of the plan included having the major New York City banks band together to form a syndicate to issue and market short notes for the city while also taking on the responsibility of managing the proceeds from the transaction in to pay off the obligation in a timely and orderly manner. Before they could proceed with this plan, they wished to appraise both McAdoo, John S. Williams, the comptroller of the currency, and Charles S. Hamlin, the chairman of the Federal Reserve, of their intentions.<sup>56</sup>

Meanwhile, on August 16, 2014, the British continued to refine their economic warfare strategy by instructing the Royal Navy to divert and if necessary escort any British flagged merchant shipping traveling east of Dover back to a domestic port; the government then extended this effort by trying to prevent foreign carriers from leaving British ports headed east. The British were about to receive a rude shock, however, when on August 20, 1914, the U.S. Congress authorized a bill to allow foreign built merchant shipping to re-flag themselves by registering as American vessels. In doing so, they would make it much more difficult for the Royal Navy to seize these vessels, given the sensitivities between the United States and Britain regarding resourcing the British war effort. In other words, while the British wished to interdict foreign shipping headed for Germany, the government could not take the chance of disrupting the flow of money, goods, arms, and ammunition from the United States. In the end, diplomacy

prevailed as the British elected not to formally protest the American actions in return for the United States agreeing not to allow any re-flagged vessels to sail between American and foreign ports, which it did.<sup>57</sup>

Meanwhile, the Battle of the Frontiers was fought on four different fronts between August 14, 1914 and August 25, 1914. The French implemented their Plan seventeen, advancing into Lorraine to meet the Germans. However, the French failed to consider two factors prior to launching the attack. First, they underestimated the difficulty of maneuvering through the dense Argonne forest. Second, they held no numerical superiority against the Germans. The German armies opposing them withdrew in a planned retreat so as to entice the French to move forward; they then launched successful counterattacks, completely disrupting Plan seventeen. On August 23, the 100,000 strong BEF under the command of General John French, crossed the Channel and deployed in Belgium. Near Mons, the British were struck by the forces of the German First Army, led by General Alexander Von Kluck, and forced to withdraw.<sup>58</sup>

At this point, the Chief of the German General Staff, Helmuth von Moltke, namesake and nephew of the former chief of staff who had led the Prussians to victory over France in 1870, then committed a strategic and operational error that would doom the war to stalemate for four bloody years. He deliberately weakened his right flank operating in Belgium and sent these troops to reinforce his armies fighting in Lorraine in an effort to envelop the Allied forces and win a quick and complete victory. He also detached two corps from his right wing and sent them to battle the Russians on the eastern front, further weakening the force structure concept underpinning the Schlieffen Plan. This would come back to haunt him, as the French forces under the command of General Joseph Joffre regrouped around Paris in the vicinity of the Marne River.<sup>59</sup>

Between August 30, 1914, and September 2, 1914, the final vestiges of the Schlieffen Plan were discarded for good. Acting on a plea for assistance from a fellow army commander, assuming the British to be out of the battle for the time being, and knowing nothing of the French withdrawal to the Paris region, Von Kluck changed his operational direction to the southeast, causing him to pass to the east of Paris while leaving his left flank unprotected as he advanced. On September 4, 1914, Joffre ordered a counter attack against the exposed German forces. At the Battle of the Marne, both the French and British armies advanced into the gap between Von Kluck's forces and the rest of the German armies. With their line now inexorably disrupted, Von Moltke ordered a general retreat to

the Aisne River, where the initial set of trenches that would cost so many lives, soon appeared.<sup>60</sup>

At that same approximate time, on the eastern front, Russia, finally having concentrated her troops, invaded East Prussia on August 17, 1914.<sup>61</sup> Two Russian armies under the commands of Generals Pavel Rennenkampf and Alexander Samsonov looked to converge and occupy the territory. The German defensive plan, developed by Colonel Erich Von Ludendorff, was to engage Samsonov's forces first by delaying Rennenkampf further east, thus enabling both to be defeated in detail. Taking advantage of the existing terrain surrounding the Masurian Lake district in what is today northern Poland, the superior mobility offered by the rail system in that part of Germany, and listening to Samsonov's un-coded communications traffic, the Germans not only knew the locations of the Russian units but also where they were heading. On August 24, 1914, Samsonov's forces eschewing aggressive reconnaissance ran directly into a German corps. Two days later, the Germans successfully engaged the Russian left flank and center, causing Samsonov's troops to flee in disorder, losing some 125,000 men in the process. A few weeks later, the Germans essentially repeated the operation, once again turning the Russian left under Rennenkampf, who lost another 125,000 men. From then on, the Russians mainly engaged in defensive operations until their exit from the war in 1917, following the Revolution.<sup>62</sup>

Meanwhile, on September 4, 1914, the bank syndicate responsible for developing the plan to solve New York's financial issues presented a letter to the comptroller's office detailing the proposed terms of an agreement. Led by the investment banks of J.P. Morgan and Kuhn Loeb, the syndicate proposed issuing 6% three year notes. In order to forestall any pushback from the city, they also offered to cap the government's foreign exchange exposure at \$5.035 per pound sterling; the syndicate would absorb any costs above that number while rebating the city the difference if exchange rates moved lower during the terms of the issue. With the assistance of another major New York investment bank, Kuhn Loeb, J.P. Morgan cobbled together a consortium of 125 banks that wound up covering New York City's debt, much of which was held by British and French investors. At the same time, McAdoo sought to establish a gold pool to be used as a reserve in an emergency by raising \$150 million from banks throughout the country; however, this proved to be unnecessary as financial conditions by this time had improved. Still, on September 21, 1914, McAdoo proposed another, smaller, gold pool plan.<sup>63</sup> However, as the British still retained their preeminent position in world financial mar-



kets; the other European combatants approached her first when seeking financial assistance. To that end, the British treasury agreed to loan the Russian government £20 million secured by a £12 million issue of Russian treasury bonds valued at \$12 million, supplemented by the shipment of \$8 million in gold bullion.<sup>64</sup>

The British also sought to broaden the economic war against Germany. On October 9, 1914, the British Admiralty announced a new order in council that soon generated additional friction with the United States. Previously, British policy had focused on suppressing American exports to Europe through controlling the flow of transatlantic trade. Now the British intended to limit the demand for American goods from neutral countries bordering Germany. This approach had a number of drawbacks associated with it.<sup>65</sup> First, it assumed that neutral governments would be willing to respect the British blockade of German ports by monitoring their own trade. Second, the new policy assumed British merchants would not trade with the enemy. Finally, the British authorities hoped that through searches and seizures by the Royal Navy, they could amass enough evidence of contraband shipments to alert foreign governments of the illegality of such trade. As might be expected, the United States did not welcome this policy on the grounds that its implementation would harm the American economy. The Wilson administration insisted Britain (and later Germany) abide by Article fifty seven of the 1909 Declaration of London governing wartime trade.<sup>66</sup> The British Foreign Office then devised an alternative plan, recommending an outright blockade designed to limit the flow of trade through the Dutch port of Rotterdam, through which most German overseas trade passed. In the meantime, a new player had joined the conflict. On October 29, 1914, the Ottoman Empire declared war on the allies. Her entrance into the war meant the strategically significant Dardanelle Straits were effectively closed to Britain and France, cutting them off from their Russian allies.<sup>67</sup>

On October 15, 1914, the British cabinet convened to discuss the long-term financial implications of the war. The bulk of their time was spent considering the various allied requests for financial assistance. The Belgian government in exile requested £16 million while the French requested £12 million. The Romanians asked for twelve million pounds, hinting that if the British did not agree, they would get the funds from the Germans, effectively placing themselves militarily on the side of the Central Powers. In addition to the earlier £20 million loan, the Russian government asked for another £100 million in to procure industrial property, plant, and equipment, in addition to munitions. This one request alone was more than the entire peacetime British defense budget.<sup>68</sup>

Needless to say, the government could not respond favorably to these requests unless the borrowers backed them with gold shipments, as had been arranged for the earlier Russian loan; both the French and Russians balked at this request.<sup>69</sup> Meanwhile, in the United States, all twelve Federal Reserve banks finally opened on November 16, 1914. However, tensions between the Treasury and the Federal Reserve Board of governors over the control of financial policy as well as between Washington and the reserve banks persisted. On December 7, 1914, McAdoo released his Annual Report of the Secretary of the Treasury in which he summarized the actions taken by the government upon the outbreak of hostilities, giving full credit to the Federal Reserve for its actions upon the advent of the war.<sup>70</sup> This was followed on December 12, 1914 when the NYSE finally reopened for business.<sup>71</sup>

### 1915

By early 1915, trench warfare became the order of the day (Fig. 3.3). The opposing lines on the western front now stretched from the North Sea to neutral Switzerland. However, in the east, the situation was more critical. As mentioned earlier, the entrance of the Turks into the war in late October, 1914 meant the Russians were now physically cut off from the British and French; more importantly the shipment of war supplies from those allies was now disrupted. This separation also meant the allies were deprived of access to the rich Ukrainian grain fields. These events in turn sparked a heated debate within the British government. Winston Churchill, the First Sea Lord of the Admiralty, sought to reopen these supply lines by mounting an amphibious assault against the Turkish land forces defending the Dardanelles. As might be expected, the British War Minister, Field Marshal Lord Kitchener, backed by the French, advocated an aggressive land offensive on the western front. In the end, the decision was made to conduct operations in the Dardanelles, an action that would cost Churchill his position and very nearly his political career.<sup>72</sup>

The British economy was likewise beginning to suffer from the effect of war. While the Royal Navy had been successful in eradicating the threat of the German raiding cruisers by the end of 1914, allowing for the uninterrupted trade with the United States, her imports greatly exceeded the value of her exports, leading to a widening trade imbalance with the Americans. This situation was further exacerbated by the conflicting manpower demands

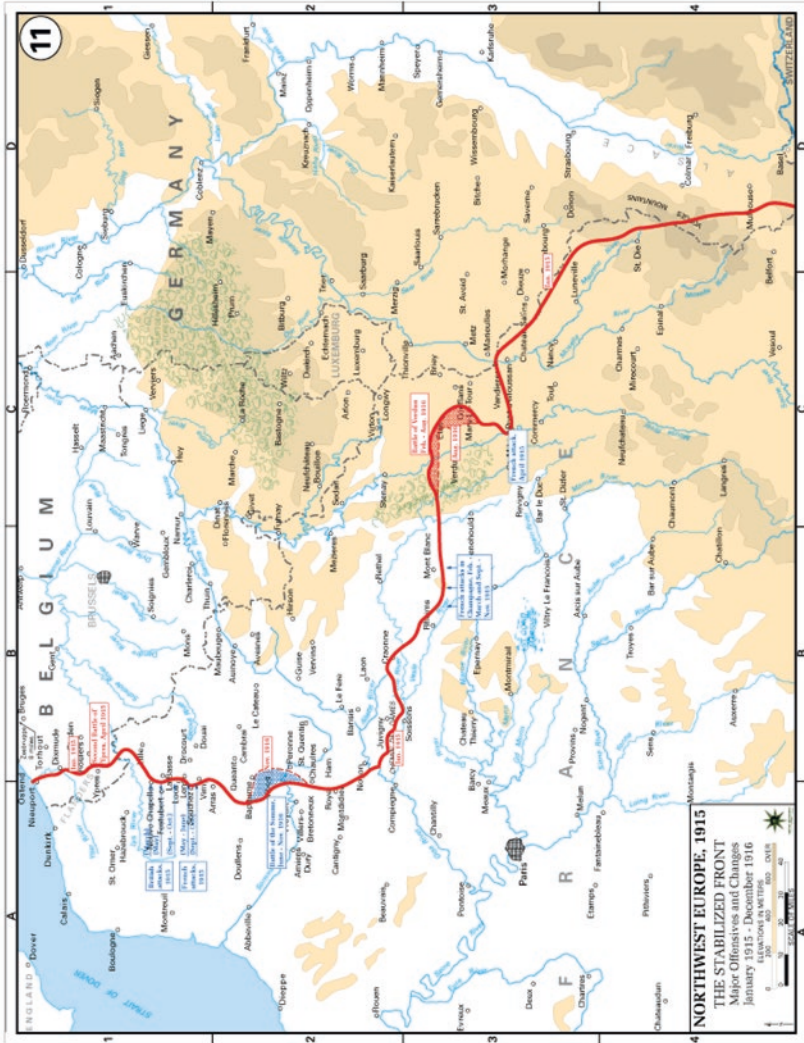


Fig. 3.3

of the economy and the army. As more industrial workers were recruited in the armed forces, food production in particular suffered, causing prices to skyrocket; still, Lord Kitchener refused to suspend army recruitment in major ports such as Southampton. Meanwhile, on January 15, 1915, the British Army Council and the Admiralty signed a Commercial Agreement with J.P. Morgan officially designating the bank as its exclusive purchasing agent in the United States for all war related materials.<sup>73,74</sup>

The British, along with Commonwealth and some French support, commenced their campaign in the Dardanelles in February and March 1915, beginning with a naval gunfire assault on the Turkish positions lining the straits. British ground forces under the command of General Sir Ian Hamilton landed on the beaches at Gallipoli on April 25, 1915, but failed to secure the dominating heights overlooking the straits, which remained in Turkish hands. After three months of bitter fighting, a second landing, this one, composed mostly of Commonwealth troops from Australia and New Zealand, were pushed back by Turkish reinforcements. In early December, the British and Commonwealth forces evacuated the straits after losing over 250,000 troops. The Turks suffered a like number of casualties but in the end, the allied separation from Russia became permanent.<sup>75</sup>

The French and Russians, meanwhile, continued to press the British for financial assistance. On February 2, 1915, the French proposed the allies pursue a joint £800 million loan, the argument being the French held the largest gold reserves in Europe while the British possessed the greatest public credit in the world. However, the British objected on both official and unofficial grounds. Officially, the British argued the financial markets could not absorb a loan of this magnitude. Unofficially, the British were not in favor of undermining their own credit rating in order to enable the French and Russians to obtain loans at more favorable interest rates.<sup>76</sup> In the end, the British agreed to support loans of £25 million and ₣625 million for the Russians and French, respectively. But the loans came with stringent covenants. The French and Russians agreed that, in the event of a loss of British gold reserves by more than 10% or £80 million, the Banque de France and the Russian State Bank would each would transfer £6 million in gold within a year following the decline of those reserves, with the option on the part of the French to do so with dollars. The Treasury planned to use these additional reserves if necessary by buying goods from American businesses in order to keep U.S. interests rates low. The rationale for doing so was it was cheaper to buy goods in American

than produce them in Europe, given the higher rate of inflation.<sup>77</sup> The loan was floated but only after some difficulty, given that none of the allies trusted each other enough to uphold their end of the transaction. However, it did achieve its major objective of stabilizing both the British and French exchange rates.<sup>78</sup>

The Germans meanwhile also considered the possibility of floating a loan in the United States, at this time, officially still a neutral power. The British blockade was beginning to take its toll on the German economy, while at the same time, checking the flow of promissory notes and other forms of commercial paper back and forth across the Atlantic. However, these hopes were dashed almost immediately. First, the Germans had to deal with the dominance of the stridently anglophile J.P. Morgan in the American market. While there were three institutions willing to take on the task, (the National City Bank, the Equitable Trust Company, and the Guaranty Trust Company), none carried Morgan's weight in U.S. financial markets. The New York investment bank of Kuhn Loeb, with its roots in Germany, was Berlin's best hope, but, once again, Wilson himself scuttled an attempt by the bank to obtain loans for the cities of Berlin, Hamburg, and Frankfurt. The die was cast forever when on May 7, 1915, the German U-Boat, U20, located and sank the cruise liner, Lusitania, off the coast of Ireland with the loss of nearly 1,200 passengers and crew, including nearly 120 Americans, an action Wilson was quick to condemn.<sup>79</sup>

Meanwhile, both the British and Germans intensified their pursuit of economic warfare. On February 10, 1915, the British cabinet provisionally approved Churchill's proposal to interdict both in and outbound German trade. Four days later on the fourteenth, the Germans retaliated by announcing that within two weeks the area around the British Isles would be considered a war zone subject to unrestricted submarine warfare. Both sides now had justification for taking economic warfare to a new level.<sup>80</sup> However, on February 25, 1915, the British cabinet learned that Foreign Secretary Edward Grey had engaged in secret negotiations with Wilson's special envoy, Colonel E.M. House, who was carrying a message from the American administration protesting the Royal Navy's interference with American shipping. The demarche also indicated that if these actions did not cease, the United States was prepared to embargo the sale of all munitions. This was no idle threat; a substantial amount of arms and munitions utilized by the British during the war were provided by the United States. A week later, the Asquith government reiterated its intent to widen the blockade of German ports. Ten days later, on March 11, 1915, the British issued

another order in council formalizing this policy, going so far to as warning neutral shipping against trading with Germany; violations of this policy would result in vessels being redirected to a British or friendly port, where their cargoes would be seized.<sup>81</sup>

Back on the Western Front, the slaughter continued. Between April 22, 1915, and May 25, 1915, the Battle of Second Ypres was fought. The allied forces in the midst of preparing for a new offensive were interrupted by a frightening surprise. Two German corps attacked the British and French positions, preceded by clouds of chlorine gas, the first but certainly not the last time poison gas would be used during the war. The British and French, totally unprepared for the use of chemical weapons, fell back in disarray; however the Germans were unable to exploit this tactical advantage due to a lack of available reserves. The British were finally able to stem the German advance after fierce fighting but the tone of the conflict had now changed. The use of every available weapon, no matter how terrifying, was now on the table. It would not take long for the allies to retaliate. However, in the meantime, the German strategic situation further deteriorated when on May 23, 1915, Italy declared war on Austria, thus opening up a third front.<sup>82</sup>

Despite the sinking of the *Lusitania*, Wilson still clung to the idea of achieving a peaceful solution to the European conflict while preserving American neutrality. On May 29, 1915, three days after the attack on the *Lusitania*, Wilson met personally with the German ambassador to the United States. The president suggested obliquely that if Germany was willing to cease unrestricted submarine warfare, he believed he could convince the allies, specifically the British, to lift the blockade of foodstuffs into Germany. Upon hearing of this development, the British government immediately expressed concern that if food supplies were allowed through, it would not be long before munitions shipments would be permitted as well. The French expressed even more strident opposition to the plan, given they were suffering the bulk of the casualties on the western front.<sup>83</sup>

Given the allied opposition to any sort of rapprochement with the Germans, the Wilson administration began taking the first small steps for preparing the country for war by establishing the Naval Consulting Board, chaired by Secretary of the Navy Josephus Daniels. Despite the massive investment in the U.S. Navy in the 1880s and 1890s, it was believed that more improvements could be made to the fleet to enhance its combat

effectiveness. The mission of the board therefore was to both evaluate and develop new technologies that could quickly implemented by the Navy.<sup>84</sup>

Other measures soon followed such as the establishment of the Industrial Preparedness Committee, the first true mobilization planning committee in the history of the United States; up until now, all such planning had been accomplished on an ad hoc basis. The basis for its existence was the belief that “the economic status quo could only be preserved in the face of modern warfare by careful preparation and planning.” To that end, the Committee tasked the five largest engineering societies in the country to inventory 30,000 plants in their respective areas of expertise to determine their capacity to supply the armed forces with the necessary levels of support to fight a modern war.<sup>85</sup>

Meanwhile, the British economy and financial system remained under considerable pressure. On July 3, 1915, the financial secretary of the Treasury, Edwin Montagu, wrote a letter to British Prime Minister Herbert H. Asquith warning of the need to keep an eye on the post-war world, in particular, the importance of maintaining Britain’s creditworthiness. He urged the government to restrain spending on the military while striking a better balance among the various sectors of the economy. Montagu believed the economy to be in dire straits and the country on the verge of a financial crisis. He may very well have been right. Eleven days later on July 14, 1915, the British cabinet took the risky step of declaring cotton, an export considered to crucial to the American economy, to be contraband; the Americans were still angered over the earlier seizures of meat shipments, while British merchants were shipping goods to the continent in violation of their blockade.<sup>86</sup> The next day, another allied economic and financial conference convened in Paris. Three subjects highlighted the agenda: the possibility of securing an additional Anglo-French loan, acquiring munitions and finally, how to pay for those munitions. The former British chancellor of the Exchequer, David Lloyd George, believed the United States to be more dependent on allied war purchases than the allies were on American financing. His successor, Reginald McKenna, took the opposite position. He felt the Americans would take advantage of allied financial weakness to deplete their respective gold reserves, and in doing so, assure the United States pride of place in the post-war world financial system. To that end, he believed the UK should float loans in its own name only and not be weighed down by the allies lack of creditworthiness.<sup>87</sup>

Meanwhile, on July 22, 1915, Asquith, in an effort to achieve a balance between economic and military resource limitations, asked McKenna to

research the issue of fixing a limit between the growth of Army manpower and the requirement for munitions workers. McKenna produced a report indicating the British financial situation was much more difficult than previously believed. The night before the release of the report, J.P. Morgan had been unable to secure enough foreign exchange to cover the cost of a Russian munitions contract guaranteed by Britain. McKenna had been forced to seek an emergency \$50 million loan to serve as collateral for the contract. With all of this in mind, McKenna recommended an immediate cutback in spending against vigorous opposition from Kitchener. The war minister instead urged the introduction of civilian rationing, extending the income taxes to more of the working class, and encouraging women to join the civilian workforce, all of which were politically infeasible. The debate over military spending versus protecting the economy continued unabated and would eventually have severe repercussions for Britain and the allies.<sup>88</sup>

On August 10, 1915, the British and the United States finally came to a compromise over the sensitive issue of American cotton exports. The British agreed to a system of market supports by purchasing cotton whenever the price fell below ten cents a bale. The Federal Reserve meanwhile agreed to supply southern financial institutions with \$30 million to be used to provide inexpensive loans to local cotton farmers, the goal being to reduce supply and thus maintain prices at a relatively high and stable level. No sooner had this crisis been averted than another surfaced. Much as was with the issue of cotton support, J.P. Morgan had been purchasing British sterling in an attempt to maintain stable exchange rates. On August 14, 1915, the bank suddenly halted this practice for no apparent reason. As was to be expected, the value of the pound decreased. This, in turn, jeopardized the flow of goods to Great Britain by making them more expensive.<sup>89</sup>

Meanwhile, McKenna presented his first budget of the year. In it, he raised the income tax by 40% with three goals in mind: depress consumption and therefore lower prices; free up precious shipping space for war related cargoes; and, finally, to husband Britain's rapidly dwindling foreign exchange reserves. The measure effectively doubled the number of taxpayers but at the same time was progressive in nature; that is, higher incomes were taxed more heavily than lower ones. The following month, J.P. Morgan successfully floated a large denomination \$500 million bond offering for Britain and France. Initially opposed by the administration in line with its isolationist tendencies as well as German and Irish immigrants



with no great love for Britain, Wilson eventually relented on the grounds the American economy would suffer without continued purchases of war related material.<sup>90</sup>

The Germans meanwhile had pledged on September 1, 1915, their intent to cease attacking civilian ships without warning, perhaps anticipating an American entry into the war as a result of Wilson's upcoming message to the Congress.<sup>91</sup> On October 7, 1915, Wilson presented his Annual Message to the Congress. In it, he tacitly acknowledged that America must prepare for an eventual entry into the war.<sup>92</sup> While the administration prepared for what seemed to be the inevitability of involvement in the European war on the side of the allies, America and Britain continued to spar over British naval policy. The United States presented the Asquith government with a note rejecting the British policy of retaliating against perceived German infractions of international law by interfering with American trade. The British simply ignored the American complaints and continued its current blockade strategy. Meanwhile, Germany announced a resumption of unrestricted submarine warfare on November 21, 1915.<sup>93</sup>

On December 6, 1915 McAdoo presented his Annual Report of the Secretary of the Treasury. In it, he devoted considerable space to the impact of European demand on U.S. industry, including staples such as cotton and the subsequent difficulties experienced in trying to satisfy this demand. In addition, he addressed the difficulties in bringing the Federal Reserve up to speed as well as the uneven implementation of the income tax.<sup>94</sup> A month later, the governors of the Federal Reserve Board presented their annual report on February 1, 1916. The Board echoed many of the Treasury's comments, while at the same time proposing a number of improvements to Federal Reserve operations, now that the central bank had been operational for roughly a year.<sup>95</sup>

## 1916

In the meantime, the bloodbath on the western front continued, exacerbated by severe economic and domestic stress for all of the combatants. France was being bled dry of available manpower, while Britain was on the verge of instituting a formal draft to meet the demands of her armies. In addition, the British were being forced to confront a major uprising in Ireland, as Irish nationalists looked to take advantage of her

involvement on the continent to secure independence once and for all. Only the Russians seemed to have an adequate supply of manpower, but as always, was slower than the other combatants to mobilize it. Both sides now began examining alternative strategies in an effort to break the stalemate on the western front.<sup>96</sup>

The Germans, who spent a great deal of blood and treasure the previous year in an unsuccessful effort to force the Russians out of the war, now sought a decisive decision in the west. In doing so, they believed they could, through a major offensive, finally force the French to capitulate as a result of continued massive losses in manpower. The allies likewise looked to a different strategic approach as well. In a meeting on December 6, 1915, Joffre, as the overall allied commander, succeeded in reaching an agreement with the British, Russians, Italians, and now the Romanians to launch a series of coordinated attacks across all three fronts in the east, west, and in Italy, in an effort to overwhelm the Central Powers by preventing them from transferring forces between these theaters. These attacks were tentatively planned for June, when the Russians would finally be fully mobilized. However, the Germans would strike first.<sup>97</sup>

The new German commander on the western front, General Erich von Falkenhayn, decided to attack a series of French fortresses at Verdun, northeast of Paris. On February 21, 1916, the German forces smashed through the French positions and nearly overran the defenders. Determined not cede another inch of French soil, on February 26, 1915, Joffre sent General Henri Petain to take command of the French forces. Petain took time to reorganize as the Germans reached their initial objectives. On March 6, 1916, the Germans launched their next set of offensives to the west of Verdun; Petain drove them back with a set of counterattacks that persisted throughout the end of the month. Still, the Germans had reduced the French line of communications to a single secondary road back to Paris. However, Petain was able to establish a regular system of resupply along this single avenue that allowed the French to continue to defend Verdun.

In May, 1916, the Germans launched another attack on both sides of the Verdun salient but once again were repulsed in a series of attacks and counterattacks. However, in June, a new German offensive nearly broke the French line but once again Petain's beleaguered formations held their positions. The campaign lasted for another six months, ending inconclusively in November 1915 with total losses exceeding 900,000 casualties. Coupled with the First Battle of the Somme, the carnage inflicted in 1916

cost over two million men. It was obvious something would have to give before both sides were completely bled dry.<sup>98</sup>

The one major naval battle of the war took place at Jutland in the North Sea in late May 1916. On May 30, 1916, the German High Seas Fleet under the command of Admiral Reinhard Scheer finally left its anchorage and sortied out into the North Sea. The British Grand Fleet, under the command of General Sir John Jellicoe, having intercepted German radio traffic, immediately set sail to intercept the Germans. After an afternoon and early evening of battering the opposing fleet, neither side gained a decisive advantage. Strategically, however, the Battle of Jutland ensured that the German fleet, which had retreated to its anchorages, would not pose a threat to the Royal Navy on the high seas for the remainder of the war (Fig. 3.4).<sup>99</sup>

In the United States, as the prospect of the war drew nearer, Congress passed the National Defense Act on June 3, 1916. This legislation provided for a complete reorganization of the active duty military, including an expansion of the Army and National Guard. It also clarified the conditions under which the president could call the Guard to active duty and for how long. Finally, the legislation created the Reserve Officer Training Corps (ROTC) in order to provide the armed forces with another avenue of officer recruits in addition to the service academies; this program would prove useful in times of rapid expansion of the military. The legislation also provided some direction in terms of mobilizing the industrial base to support the American armed forces in the event the United States entered the war. Under Section 120 of the legislation, the president, through the War and Navy Departments, was granted an emergency authority to place mandatory orders with re-qualified firms to supply war materiel. He was also given the authority to create a “Board on Mobilization of Industries Essential for Military Preparedness.” Should the relevant industry management elect not to cooperate with the board, the president had the right to commandeer plants.<sup>100</sup>

This was no idle threat. Industry management teams knew full well that profitability on commercial and foreign contracts was much greater than on domestic war supply contracts; as such, they would be reluctant to switch production to a full time war footing. Section 121 of the legislation authorized a board of three military officers to study the conflict of public versus private munitions production. This debate would have long-term consequences for the industrial base. Even today, the issue of public versus private competition for the maintenance of major weapons systems

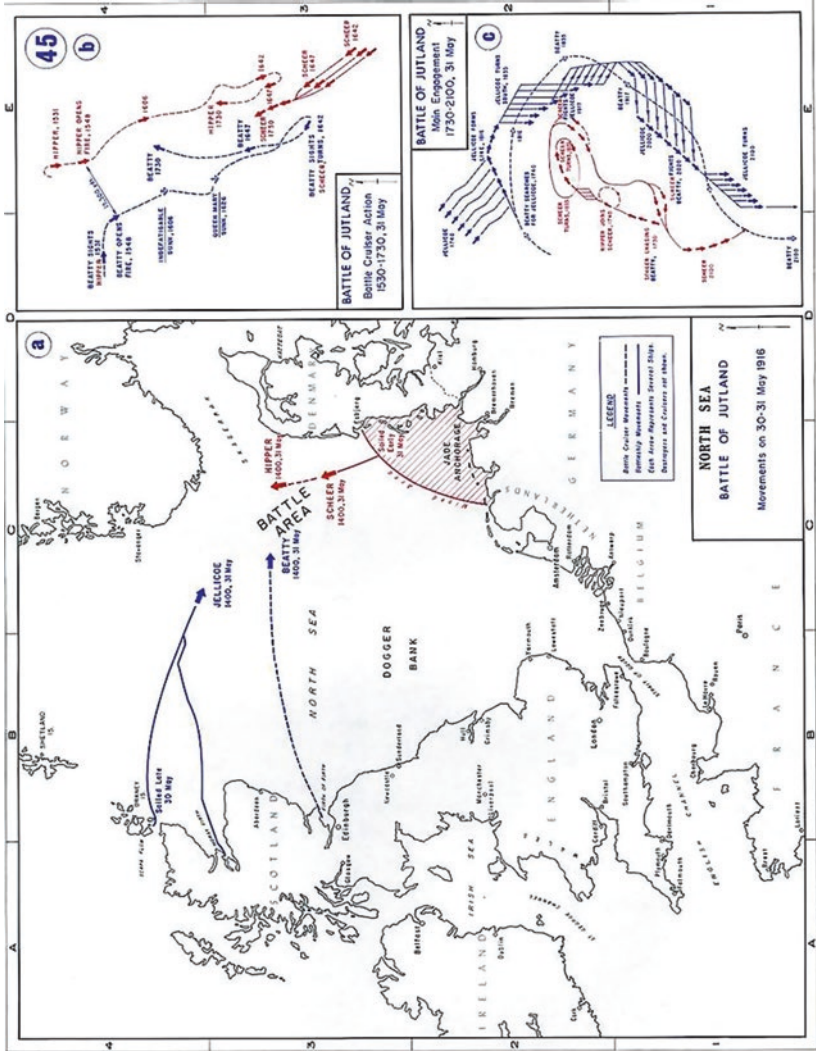


Fig. 3.4

or the outsourcing of technical services work resonates on Capitol Hill, involving questions of capability, the labor force, and technology ownership. Still, the legislation was the first in American history that forced Congress to focus meaningfully on issues of war related economic mobilization to include the role of the armed forces either in a management or advisory capacity. However, unlike today, where Capitol Hill on both sides of the aisle pay very close attention to such issues as base realignment and closure or weapons program cancelations (particularly in one's state or district), at this time, member of Congress showed little inclination to become involved in the process, preferring to leave in the hands of the administration.<sup>101</sup>

On June 24, 1916, the other major ground offensive on the western front, the First Battle of the Somme commenced. Conducted simultaneously with a Russian offensive on the eastern front against the Austrians, the attack was the culmination of Joffre's long planned offensive on the western front that had been disrupted by Falkenhayn's surprise campaign against Verdun. The key difference from Joffre's original plan was that, in light of the ongoing losses at Verdun, the campaign was not to be conducted as a joint operation but rather with the British, who had suffered less than the French, leading the way. After a non-stop seven-day artillery barrage, on July 1, 1916, the British moved forward into No Man's Land against German positions largely undamaged by the initial artillery assault. The British incurred 60,000 casualties, nearly 20,000 killed in action, the single largest one-day loss of life in the history of the British Army.<sup>102</sup>

Still, the British offensive forced Falkenhayn to redeploy some his forces away from Verdun to deal with small but continuing attacks on the German positions. The British also deployed a new weapon designed to eliminate the stalemate engendered by trench warfare: the tank. Despite several drawbacks, such as an underpowered engine, a slow speed, unreliability, and being too few in number, the appearance of the tank surprised the Germans, allowing the British to make territorial gains unseen since the onset of trench warfare. Still, the Germans managed to stem the allied advance as a result of their echeloned defensive positions and heavy reliance on machine guns, leaving the western front in the same stalemated condition it was prior to the Somme offensive. Still, more importantly, British, French, and German casualties totaled some 1.2 million men.<sup>103</sup>

The United States continued to refine its mobilization structure during 1916. In August 1916, Congress approved the establishment of the Council of National Defense (CND) and the National Defense Advisory Council

(NDAC). The CND comprised various departmental secretaries to the War, Navy, Interior, Agriculture, Commerce, and Labor Departments. The mission of the CND was the “coordination of industries and resources for the national security and welfare of the country.” The NDAC by contrast was composed of seven civilians who were charged with investigating and advising the CND on the following issues: defense and emergency conditions pertaining to such sectors as railways, inland waterways, and sea transport; the progress of army and navy mobilization should it come to it; munitions production and its potential for expansion; and finally, coordinating with various industry sectors to inform them as to what supplies would be required by the government and military in the event of war. In sum, the CND was to provide overall guidance to the mobilization effort while the NDAC drilled down to the nitty-gritty details of production and logistics.<sup>104</sup>

However, the new structure, while conceptually sound, was flawed on several levels. First, the two organizations did not carry any legislative authority to require the armed services and industry to cooperate with the civilian authorities. Second, their collective purview encompassed virtually all aspects of industrial mobilization, a task they were not resourced to successfully accomplish. Finally, the two organizations did not meet together until December 1916. These limitations however did not prevent the administration from moving on with its mobilization planning. On September 7, 1916, Wilson signed a measure creating the U.S. Shipping Board and Emergency Fleet Corporation. This legislation authorized \$50 million for the construction and purchase of merchant ships as well as the establishment of a naval auxiliary and reserve “to meet the requirements of the commerce of the United States.”<sup>105</sup> The following day, Congress passed the Revenue Act of 1916. Although there were nine titles to the legislation, the most important was Title I, which imposed a graduated income tax on the entire population.<sup>106</sup>

In the October–November 1916 timeframe, the British were greeted with more bad news. A special study to study British dependence on U.S. economic and financial assistance confirmed the cabinet’s worst fears: Without American supplies, the British could not afford to continue the war. Moreover, at the current rate of depletion, Britain would exhaust its gold and securities reserves by March 1917. To make matters worse, on November 28, 1916, the Federal Reserve issued a warning circular, advising against purchasing foreign (read British) treasury bills. There were political and financial rationales for this decision. First, Wilson, up

for re-election, still wished to keep the United States out of the war; by cutting back on the purchase of foreign securities, he believed he could bring the allies to the negotiating table.<sup>107</sup> In addition, the Federal Reserve Board was by no means united behind the policy. The chairman of the Board, Benjamin Strong Jr., saw the creation of foreign credit as strengthening the American financial system. Other board members, such as financier Paul Warburg, worried about an influx of gold increasing the money supply, and raising the specter of inflation.<sup>108</sup>

There were further consequences for American monetary policy. Once the allies began substituting unsecured securities for gold to pay for their war supplies, the American gold reserve began to decline. There were other impacts as well. By extending credit to the combatants, domestic businesses found themselves being crowded out of the market for short term financing; in sum, the United States, by increasing its exposure to Europe, was making a massive bet on eventual allied victory. In the eyes of some, if the allies were to somehow achieve a quick victory, an unlikely prospect to be sure, the sudden drop off in war related orders, which had largely replaced much domestic consumption, could be catastrophic for the American economy. Finally, J.P. Morgan, on its own initiative, advised the French and British governments on November 19, 1916, that an unsecured loan could be floated by January 1917; furthermore, the bank believed another \$1 billion in treasury bills could be issued as well. However, Morgan greatly misjudged the attitude of the Federal Reserve, which turned thumbs down on the proposed transactions. The Federal Reserve's decision, in turn, sparked a run on the pound that was only halted by the shipment of gold and a virtual halt in additional orders for war materiel by the British, who also attempted to end those of the other allies.<sup>109</sup> On December 4, 1916, McAdoo released his Annual Report of the Secretary of the Treasury, obliquely noting the gradual ascension of the United States to top billing in the world's financial system, supplanting a rapidly weakening Great Britain.<sup>110</sup> But as importantly, McAdoo's comments, whether as the Secretary or a member of the Federal Reserve Board, reinforced the perception of the Treasury's dominance of the Federal Reserve that would last until 1951.<sup>111</sup>

The next day, Wilson delivered his fourth Annual Message to the Congress.<sup>112</sup> Somewhat surprisingly, he failed to mention the European conflict anywhere in his statement. One can only assume he still held out hope for a peaceful settlement of the war without American military intervention. Two weeks later, on December 18, 1916, Wilson attempted to

mediate the war. However, the combatants were in no mood to concede even the most minor of points. From the German standpoint, progress had been made on the eastern front. They had captured Bucharest, resulting in the collapse of the Rumanian army. The allies meanwhile remained insistent upon the dismemberment of the Austrian, German, and Turkish empires. Needless to say, nothing of consequence came to pass.

### 1917

By the advent of 1917, there were new commanders for each of the various combatant armies, the most important of which were General Robert Nivelle replacing Joffre, upon his retirement, in command of the French forces, and Generals Paul Von Hindenburg and Erich Ludendorff being appointed to overall command of the German armies, based on their superior performance on the eastern front.<sup>113</sup> The American also continued their effort to properly organize themselves for an eventual entry into the war, should that be required. To that end, the Purchasing Department of the Army general staff was established to supervise the procurement of supplies.<sup>114</sup>

In the meantime, Wilson continued to press for a cessation of hostilities, although this looked to be at best a remote possibility; to this end, on January 22, 1917, Wilson first proposed his concept of "A World League of Peace" in a speech to Congress.<sup>115</sup> Unfortunately, for Wilson, events soon escalated out of his control. Less than ten days after his speech, on January 31, 1917, Germany announced the renewal of unrestricted warfare. It did not take long before the Wilson administration found itself forced to make a decision on entering the conflict or not. On February 3, 1917, the United States made the first step toward that decision, severing diplomatic relations with Germany in protest of the new German policy. In conjunction with this move, the CND and NDAC began meeting regularly in anticipation of an American entrance into the war. On February 12, 1917, the NDAC also voted to allow its cooperative committees to no longer operate as a centralized organization; they would now effectively function separately.

Things went from bad to worse for German–American relations when on March 1, 1917, the State Department released a copy of the so-called Zimmerman telegram, a communication between the German foreign



minister and the Mexican government. In it, the Germans proposed a defensive alliance with Mexico under which Mexico would, with German assistance, “reconquer the lost territory in Arizona, New Mexico, and Texas.” In addition, the Germans invited both Mexico and Japan to join the Central Powers. British naval intelligence intercepted the telegram and turned it over to the American ambassador in Britain, Walter Hines Page, who immediately forwarded it to the State Department in Washington. As might be expected, the release of the telegram infuriated the American public, dooming Wilson’s plans to remain neutral in the conflict. Two weeks later, he authorized the arming of American merchantmen.

In his inaugural address on March 4, 1917, Wilson tacitly acknowledged the need for preparedness.<sup>116</sup> To that end, American preparations for war began in earnest between March and June 1917, before the declaration of war against the Germans on April 6, 1917. However, even before these preparations, the Revenue Act of 1916 was passed on October 3, 1916. The most significant part of the legislation was the imposition of a 2% “excess profits” tax. The tax proved to be highly successful in raising funds, despite bitter opposition from business groups, who saw the measure as an additional regulatory burden. McAdoo also asked Congress to appropriate \$3.5 billion, of which 99% would go to the Army and Navy.<sup>117</sup> This period also saw the establishment, on the combined recommendations of the CND and NDAC, of a Munitions Standard Board (MSB). The board was given several responsibilities including analyzing the industrial requirements and capabilities of both the United States and the allies; issuing clearances on government orders; setting priorities for commodity production; arranging raw material price fixing agreements; and supervising allied purchasing in the United States. This last responsibility was perhaps its most important. While the United States wished to meet the requirements of the allies, it also wanted to make sure that its own forces, set to expand dramatically over the next few months, were not caught short. Still, the MSB failed to fulfill its expected role for two reasons. First, the board was given no guidance from the Secretary of War as to how to proceed. Second, while the business executives assigned to the MSB had considerable experience in manufacturing munitions, they had no concept of the demands of a wartime economy would place on the industrial base.<sup>118</sup>

The Federal Reserve also had second thoughts about its previous communication of November 28, 1916. The board now claimed it had no intention of biasing investors against foreign credits or limiting exports for lack of financing. Unfortunately for the British, this *mea culpa* came too

late. Throughout the winter of 1916–1917, the British had been forced to ship \$300 million in gold to the United States to cover the cost of war materiel acquisition as well as build up a \$350 million balance in unpaid debt obligations with J.P. Morgan. This, in turn, prompted the British Treasury to issue £250 million in new stock at the beginning of the year.<sup>119</sup>

All was not bad news for the Germans, however, despite the impending entrance of the United States into the war. On February 27, 1917, the Russian Revolution began, largely as a result of an implosion in the economy. Ironically, this was not caused by an economic downturn but rather an overheated industrial sector financed by printing excessive amounts of paper currency. As more and more individuals, many from the cities, were conscripted to meet the needs of the army or to serve in the munitions facilities, they were replaced by peasants from the agricultural regions of the country. Printing excessive amounts of money, increased wages paid to factory workers and a decrease in agricultural production led to an inflationary spiral with food shortages soon becoming commonplace.<sup>120</sup>

Still, the Germans decided to alter their defensive formations in the west. Under the watchful eye of Ludendorff, between February 23, 1917 and April 5, 1917, the Germans prepared a much shorter and concentrated defensive front some twenty miles behind their current positions stretching from Arras to Soissons. Called the Hindenburg Line, it consisted of a lightly manned and supported outpost line supplemented by two additional and heavily fortified lines further to the east behind which sheltered the German reserves, now more numerous in number due to the fewer divisions now deployed forward. The lines were far enough apart that they could not be simultaneously engaged by enemy artillery. This new position proved to be extremely efficient in blunting the new allied offensive that began on April 9, 1917. At the battles of Arras and Second Aisne, the Germans managed to stem the allied advance.<sup>121</sup>

The more important outcome was a mutiny that occurred in the French armies between April 29, 1917, and May 20, 1917. Petain managed to tamp down the insurrection before it became widely known but it still served as a reminder of how men can be driven under extreme circumstances before finally breaking. Astoundingly, the Germans remained fully unaware of the incident; had they known and attacked in force, the war might have ended there with a German victory.<sup>122</sup> At sea, the allies finally took a step toward protecting the transatlantic shipping lanes on April

28, 1917, by instituting a convoy system. In addition to more sea base escorts, a large number of aircraft were added to anti-submarine patrols, supplemented by the systematic laying of mine barriers to impede access to the North Sea by German U-boats.<sup>123</sup>

Back on the financial front, the Treasury initiated the first of five issues of wartime bonds, known more popularly as Liberty Bonds, on May 14, 1917. Two billion dollars in bonds were offered in this first increment. They carried a 3.5% interest rate, were callable in fifteen years, matured in thirty years and were not subject to either normal taxes or surtaxes. The bonds met with an enthusiastic response; the issue was 52% oversubscribed. These short-term certificates of indebtedness were intended to fully fund rapidly increasing cash disbursements as the United States ramped up its armed forces. The Liberty loans were supplemented by short-term loans offered at preferential interest rates (3%–3.5%) in between drives.<sup>124</sup>

Other resource management measures were also taken in conjunction with these financings. On May 28, 1917, the War Industries Board (WIB) was established under the direction of former Wall Street speculator Bernard Baruch. The major goal of the WIB was to create a centralized mobilization system utilizing experienced managers from the private sector known as “dollar a year men” so called for their willingness to work for \$1 a year. Eventually, some fifty seven different commodity sections were organized. However, there were immediate protests over the WIB. Legislators objected to being left out of the mobilization process while the military refused to surrender any control over mobilization to civilians. On August 10, 1917, Congress passed the Lever Food and Fuel Control Act. The provisions of the Act effectively guaranteed government control of the food and fuel supply for the duration of the war.<sup>125</sup>

On the military front, the United States abandoned all pretenses toward neutrality when on May 18, 1917, Congress passed the Selective Service Act of 1917. Every man between the ages of twenty one and thirty was required to register with the appropriate state officials, as Wilson explained in a special address to the nation.<sup>126</sup> In the meantime, the British, under the command of General Sir Douglas Haig, assumed the allied initiative as the French sought to recover from the mutiny a few months before. Haig was determined to break through the Hindenburg Line between the North Sea and the Lys River. He decided to mount an attack near the village of Ypres, the scene of intense fighting earlier in the war. After detonating one million pounds of high explosive under

the German positions on the Messines Ridge, the British achieved both surprise and a breakthrough.<sup>127</sup>

Haig looked to capitalize on this development and following a typical heavy bombardment, launched an attack northeast against the well-fortified German positions near Passchendaele on July 31, 1917. The British progress was slow and by the time the attack petered out on November 10, 1917, their armies had advanced some five miles. However, this Third Battle of Ypres, as it came to be known, cost some 300,000 British casualties, while the Germans lost another 260,000. Finally, in late November, the British launched another assault on the Hindenburg Line near the village of Cambrai. Foregoing the usual massive artillery barrage while employing 200 tanks, the British broke through the German line, but plagued by vehicle breakdowns, not enough infantry, the use of artillery in a direct fire role, and timely reinforcements, the Germans were able to stem the tide and turn back the British assault.<sup>128</sup>

Meanwhile, on October 1, 1917, a second Liberty Loan was offered. This \$3 billion issue (\$1 billion more than the initial issue) carried a higher interest rate (4.0% versus 3.5%) than the initial issue, was callable in ten years, matured in twenty five years (five years less than the initial issue), and attracted more than twice the number of subscribers than the first issue due in large part to the smaller denominations offered and the higher interest rate. Two billion dollars in War Certificates were also offered in an effort to attract even more small investors.<sup>129</sup> Two days after the second Liberty Loan was offered, Congress passed the War Revenue Act of 1917. Nearly identical to the measure passed the year earlier, the one new provision (Title twelve), dealt with income tax amendments. Both this provision and another dealing with excess profits generated the most controversy for the very same reasons they had the previous year. However, some of the pushback from opponents was mitigated the issuance of certificates of indebtedness, which could be used in payment of these income and excess profit taxes (although not for the purchase of Liberty bonds or bond subscriptions).<sup>130</sup> The Treasury supplemented these loans with a series of short-term financing measures as well. Referred to as “Tax Anticipation Certificates,” they were intended to provide a short term financing stream (Table 3.7). Congress also ratcheted up the economic pressure on the Central Powers by passing the Trading with the Enemy Act on October 6, 1917, forbidding Americans from trading with the enemies of the United States or those of its allies.<sup>131,132</sup>

**Table 3.7**

<i>1918 Tax Anticipation Certificates</i>						
<i>Series</i>	<i>Dated date</i>	<i>Maturity</i>	<i>Term (days)</i>	<i>Coupon (%)</i>	<i>Principal value (\$)</i>	<i>% of total</i>
T-A	11/30/1917	06/25/18	207	4.0%	\$672,000,000	42%
T-B	01/02/1918	06/25/18	174	4.0%	\$492,000,000	31%
T-C	02/05/1918	06/25/18	150	4.0%	\$74,000,000	5%
T-D	03/15/1918	06/25/18	102	4.0%	\$111,000,000	7%
T-E	04/15/1918	06/25/18	71	4.0%	\$72,000,000	4%
T-F	05/15/1918	06/25/18	41	4.0%	\$184,000,000	11%
					\$1,605,000,000	100%

McAdoo followed up these measures on December 3, 1917, in his Annual Report of the Secretary of the Treasury by noting the expected hardships on the American people and reiterating the need to raise additional funds to prosecute the war, specifically through the issuance of war saving and thrift stamps.<sup>133</sup>

Two weeks later, events took a turn for the worse for the allies. On December 15, 1917, Germany and Russia signed the Treaty of Brest Litovsk. Under the terms of the agreement, Germany took full advantage of the new but weak Soviet government that had overthrown the Tsarist monarchy the previous March. Russia was forced to recognize the independence of the Ukraine, Georgia, Finland, and Poland while ceding possession of Estonia, Latvia, Lithuania to Germany and Austria-Hungary and other territories to Turkey. Under these terms, Russia lost one million miles of its territory, fifty five million people (one third of its total population), a majority of its critical resources (coal, oil, and iron), and a good percentage of its industrial base. The Central Powers were now free to turn their full attention to the western front.<sup>134</sup>

On January 15, 1918, the Annual Report of the Federal Reserve Board, under the signature of future President and Federal Reserve Governor Warren G. Harding was released noting “the Board felt that it should in either event, during this period of uncertainty, adhere strictly to its policy of maintaining the liquid character of the assets of the Federal Reserve. Banks, of discouraging any unnecessary expansion of credits, and that it should also cause the reduction to very moderate proportions of the holdings of the Federal Reserve Banks of such investments as bonds and warrants which had heretofore been made primarily for the sake of income.”<sup>135</sup>

*1918*

As the war entered its fourth year, both sides had reason to feel frustrated with the situation. With the exception of the Far East, where British forces captured Jerusalem, the allied offensives, after some initial success, bogged down on the western front. Russia had collapsed under the weight of revolution and the German U-Boat threat to cross Atlantic resupply remained high. Although the Americans were deploying in greater numbers, the need to build a substantial land force from almost nothing meant the numerical superiority the allies so desperately craved would not materialize anytime soon. Britain and France therefore chose to pursue a defensive strategy. After the tremendous losses suffered on both sides between 1914 and 1917, all of the major combatants were down to their last manpower reserves.<sup>136</sup> Still, the Germans, with the end of the conflict on the eastern front, now had the numerical advantage on the western front but this would soon dissipate in the face of a flood of new American troops. Moreover, the other Central Powers were at the end of their resource tether, meaning more and more of the combat burden would fall on the Germans. Seeking to alter the dynamics of a stalemated battlefield, the Germans would employ a new tactical system emphasizing speed and the lack of a preliminary artillery bombardment. The weapons themselves became even more deadly with new types of explosives mixed with a variety of chemical ordnance.<sup>137</sup>

The U.S. Army was not in nearly as poor shape as it had been prior to previous conflicts. As a result of the Selective Service Act, Army end strength totaled some 9,000 officers and 200,000 troops prior to the initial American intervention in the war. By the time the conflict ended, this force expanded to 200,000 officers and four million men. At the recommendation of General John Pershing, these forces were organized into divisions consisting of 28,000 men each. Each division was allocated two infantry brigades, one artillery brigade, one engineer regiment, three machine gun battalions, and various supporting units; by war's end, forty two divisions had deployed to Europe. The Navy likewise saw a similar expansion of its force structure as well, although its missions were largely confined to escorting convoys and minelaying. As the United States deployed more forces to Europe, the administration and Congress continued to focus on adequately financing the war effort. To that end, Congress passed the Revenue Act of 1918 on January 17, 1918.<sup>138</sup>

Wilson in the meantime, ever cognizant of wanting to end the conflict quickly, laid out his post-war vision of the world when on January 18, 1918, he presented his “Fourteen Points” speech to the Congress.<sup>139</sup> A few weeks later, the War Department reorganized its supply function on February 9, 1918, by establishing two separate organizations: the Storage and Traffic Division and the Purchase and Supply Division. In the meantime, Baruch took over formal management control of the WIB on March 4, 1918. One of his first acts was to reorganize the WIB structure as follows:

- Clearance Office—dealt mostly with current demand by passing on contracts to insure necessary raw materials, parts, labor, and transportation were both available and accessible; the Clearance Office also had an important secondary goal: Insuring unnecessary plant and infrastructure were not acquired
- Requirements Division—handled future demand
- Priority Division—as the name implied, maintained a system for insuring the flow of critical materiel went to military and then civilian needs
- Price Fixing Committee—had four distinct responsibilities
  - Advising on prices for basic materials
  - Coordinating general pricing policy
  - Reviewing governmental agency contracts upon request
  - Establishing prices for commandeered goods

While admirable goals, in the end, the WIB suffered from two critical disadvantages. First, it had no statutory authority and second, the military retained the right to commandeer goods and facilities while determining their own pricing policy.<sup>140</sup> Meanwhile, on April 18, 1918, the National War Labor Board was established, its objective being to arbitrate disputes between management and labor to insure uninterrupted productivity during the course of the war.<sup>141</sup> Approximately a week later on April 16, 1918, the War Department reorganized its supply function yet once again. This time the Storage and Traffic Division and Purchase and Supply Divisions were consolidated to create the Purchase, Storage, and Traffic Division. Unlike previous reorganizations, this one caused controversy since it centered the control of all supply in the hands of a single individual.<sup>142</sup> This was followed on May 20, 1918, by one of the more important pieces of

legislation during the war passed by Congress. Known as the Overman Act, it gave the president sweeping powers to reorganize government agencies not only during the war but also for a period of six months following termination of the war. This Act allowed the administration to more forcefully manage wartime mobilization, in particular, the War Department and the civilian mobilization agencies where the ongoing power struggle for control continued.<sup>143</sup>

In the meantime, \$400 million of certificates of indebtedness had been authorized for issuance on January 18, 1918, but before these could be marketed, changes were made to the issuing method. The total amount of certificates in circulation was increased from \$2 billion to \$4 billion. In addition, instead of issuing the certificates at irregular intervals, it was proposed that six \$500 million tranches of notes be offered at two week intervals beginning February 8, 1918. The certificates would still be distributed through the Federal Reserve to its member banks for resale to investors. In the meantime, the U.S. Treasury returned to the markets on April 6, 1918, marketing the third tranche of Liberty Bonds to be offered since 1917. However, given the competition to raise funds, McAdoo knew he would have to either raise interest rates or improving their tax status; in fact, he did both. The \$3 billion issue carried a 4.25% interest rate, fifty and twenty five basis points higher than the first two Liberty loans. The bonds were not as heavily oversubscribed as the previous two loans had been (39% versus 52% and 54%, respectively), due to their shorter duration (ten years versus thirty and thirty five years, respectively) and the fact that small investors played a much greater role in the transaction than before.<sup>144</sup>

On June 5, 1918, McAdoo followed this up by appearing before Congress to press his case for increased taxes. Citing the need for increased revenue to meet war expenditures, he argued that tax increases had been the norm in other wartime situations while also being used to stabilize the price of government bonds. He also made two other predictions: The Liberty bonds would trade at a premium and these increased taxes would decrease or be abolished upon the termination of the war.<sup>145</sup> McAdoo also continued to try and strengthen the American balance sheet. On August 16, 1918, the Treasury issued 1919 Tax Anticipation Certificates. Under the issue terms, fourth Liberty Loan certificates could be used to buy these tax anticipation certificates; that loan was issued on September 28, 1918. While it offered the same interest rate (4.25%) as the third tranche, it was twice as large (\$6 billion versus \$3 billion) and also carried a longer maturation (twenty years versus ten years). The issue was also less heavily



**Table 3.8***1919 Tax Anticipation Certificates*

<i>Series</i>	<i>Dated date</i>	<i>Maturity</i>	<i>Term (days)</i>	<i>Coupon (%)</i>	<i>Principal value (\$)</i>	<i>% of total</i>
T-G	08/20/1918	07/25/1919	329	4.0%	\$158,000,000	4%
T1	11/07/1918	03/15/1919	128	4.5%	\$794,000,000	22%
T2	01/06/1919	06/17/1919	152	4.5%	\$392,000,000	11%
T3	03/15/1919	06/19/1919	93	4.5%	\$408,000,000	11%
T4	06/03/1919	12/15/1919	104	4.5%	\$526,000,000	14%
T5	06/03/1919	09/15/1919	195	4.5%	\$529,000,000	15%
T6	01/07/1919	12/15/1919	76	4.5%	\$326,000,000	9%
T7	01/07/1919	09/15/1919	167	4.5%	\$511,000,000	14%
					\$3,644,000,000	100%

oversubscribed (16% versus 39%) although the average subscription was higher (\$306 versus \$227) (Table 3.8).<sup>146,147</sup>

Meanwhile, the German high command decided to launch a series of offensives on the Western front, attempting to secure a decisive victory before the weight of American manpower and resources could be fully brought to bear (Fig. 3.5). With this in mind, Ludendorff, the overall military commander (and for all intents and purposes, the political leader of Germany by this time as well), proceeded to shift the bulk of the German forces from the eastern front to the west, where he instituted an intensive training program in support of an all or nothing offensive. Using so called Hutier shock tactics (advancing behind a rolling artillery barrage and bypassing enemy strong points), the objective of this offensive was to drive a wedge between the French and British armies in order to then defeat them in detail. By now, knowing full well the extent of the French morale problems, the operational goal was to eliminate the British first. The first of these offensives commenced on March 21, 1918, when three German armies attacked the right flank of the British in an attempt to sever their links with the French, positioned further to their right. The Germans gained considerable ground initially, moving close enough to bombard Paris with new long range artillery, but eventually the offensive petered for three reasons: a lack of logistical, strategical, and tactical fire support.<sup>148</sup>

Ludendorff launched a second attack (known as the Lys offensive), on April 9, 1918, this time on a much narrower front and with more limited

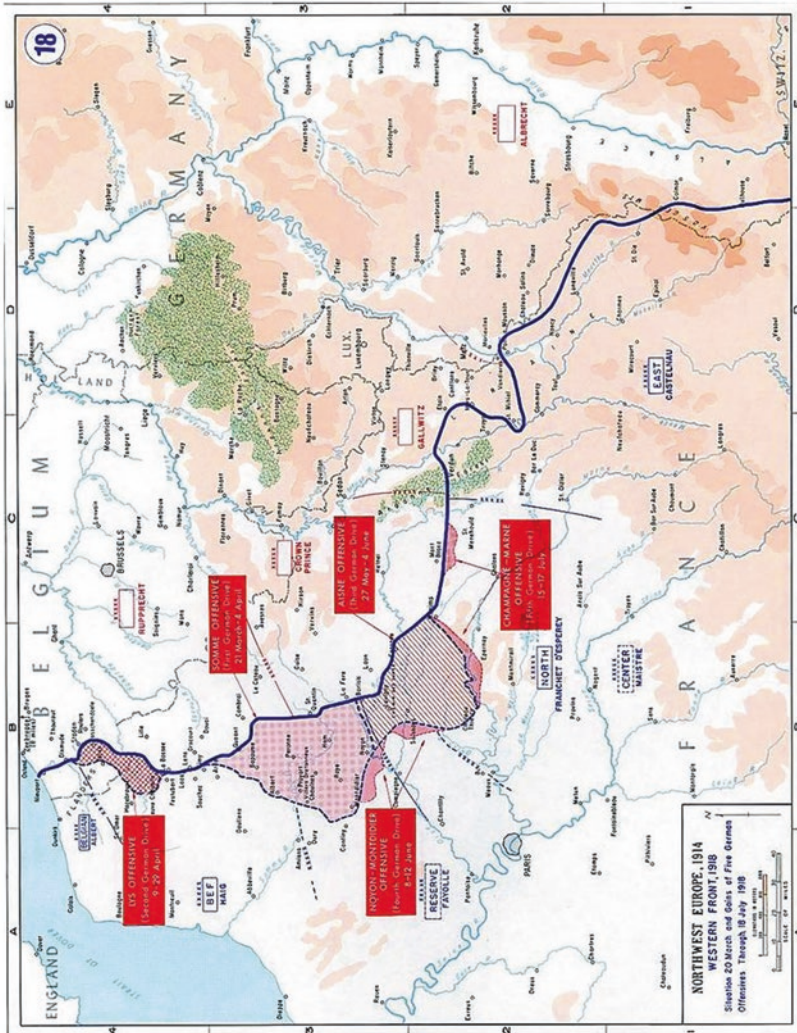


Fig. 3.5

objectives. This time the Germans attacked the British sector again in an effort to threaten the Channel ports. The German advance was halted after a ten mile penetration of the British lines. After two weeks of attacks and counterattacks, the German high command called off the operation, once again failing to achieve its objective of disrupting resupplies flowing through the Channel ports to the British forces in Flanders.<sup>149</sup> On May 27, 1918, Ludendorff launched his third offensive of 1918. However, this attack was different from the previous two. First, on May 27, 1918, he mounted a diversionary attack against the French before once again attempting another assault on the British positions in Flanders. Second, the first American offensive of the war commenced the following day with an attack by the First Division at the village of Cantigny. The Americans took the town and then repulsed a series of German counterattacks, including one at the village of Chateau Thierry and nearby Belleau Wood, where a U.S. Marine Corps brigade distinguished itself through an aggressive attack against the German positions. Although the allies managed to halt this third offensive, the German attacks created a salient thirty miles wide and twenty miles deep. Ludendorff saw this as an opportunity to create an even wider wedge between the allied forces.<sup>150</sup>

However, as a result of intelligence gained from German deserters, the allies, led by Foch and Petain, were well prepared to meet the German onslaught. Commencing on June 9, 1918, this fourth offensive gained ground early but was forced back through a series of Franco-American counterattacks. By now Ludendorff, running out of manpower and supplies and still anxious to drive the British out of Flanders, launched one last desperate diversionary offensive on July 15, 1918, against the French and American forces positioned in the Champagne region. East of the Reims area, the Germans were stopped cold but to the west of the city, where the defenses were somewhat weaker, the attackers broke through and advanced to the Marne River, scene of their earlier defeat back in 1914. At this Second Battle of the Marne, as it became known, the American Third Division managed to halt the German advance.<sup>151</sup>

The allies then employed superior air power and artillery to destroy the bridges erected across the river by the Germans, forcing Ludendorff to call off the attack. By the end of these five offensives, the Germans had lost a half a million men, slightly less than the allies but with American troops now arriving in Europe at a rate of 300,000 per month, the handwriting was clearly on the wall for the Central Powers. The allies now decided the time had come to take the offensive themselves and end the conflict.<sup>152</sup>

On July 18, 1918, a combined Franco-American attacked the salient in the Marne region, created as a result of the previous enemy offensives, driving the Germans back and forcing Ludendorff to finally abandon his dream of driving the British out of Flanders and creating a permanent fissure between the allied armies. At the same time, Foch and Haig launched a simultaneous offensive in the Amiens area. The Germans had anticipated an attack further north in Flanders and were unprepared for the allied assault. By early September, 1918, the Germans had been driven back to the original Hindenburg line. These counteroffensives proved to be the strategic turning point of the war. The Germans would now be on the defensive as more and more American troops and supplies reached Europe, although the conflict would drag on for another three months (Fig. 3.6).<sup>153,154</sup>

Pershing, while agreeing to serve under French and British command at the onset, had from the beginning insisted on maintaining a separate and distinct force structure despite repeated requests by the by his counterparts to integrate American troops piecemeal into allied combat formations. By now given that enough American forces had reached Europe and engaged in battle, Pershing was anxious to launch an offensive of his own, a desire only reluctantly agreed to by the allies. The German retreat had created a salient in the allied lines near the village of St. Mihiel. It was decided that this position would be the objective of the largest American ground operation since the Civil War.<sup>155</sup>

On September 12, 1918, the American First Army, with French support, attacked both sides of the salient; by September 16, 1918,, the German position had been cleared, erasing any threat to the allies in the Champagne region. Upon learning of the American success at St. Mihiel, the allies now planned a double envelopment of the German positions in the Meuse-Argonne sector. The first wing of the operation called for a combined Franco-American operation to proceed from Verdun toward the railroad junction at Mezieres; the second involved a British attack on another railway junction at Aulnoye. These two railheads were vital to German resupply efforts; the loss of both would be catastrophic to the German logistic system.<sup>156</sup>

The Franco-American operation kicked off on September 26, 1918, through the heavily wooded terrain of the Argonne Forest. Although initially successful, the difficulty of the terrain and the timely arrival of German reinforcements finally slowed the advance down after a week. Over the next month, the French and Americans were forced to employ



frontal attacks since the density of the forest prevented any attempt at a flanking maneuver. Finally, breaking through the last enemy positions, the allied forces began their final assault on November 1, 1918, with the intent to take the war into Germany itself. By November 10, 1918, German resistance had completely collapsed; along with similar advances by the British, French, and Belgian forces to the north, the Germans were forced to seek on an armistice on November 11, 1918.<sup>157</sup>

On December 2, 1918, McAdoo released the last Annual Report of the Secretary of the Treasury pertaining directly to the war, noting that despite the ravages of war, the U.S. financial system (unlike that of its allies or the Central Powers) remained on a strong footing while looking to gradually reduce the burden on the average American taxpayer.<sup>158</sup> The Federal Reserve followed with its Annual Report on January 31, 1919, noting the continued close cooperation between the Treasury and the central bank.<sup>159</sup> While Roosevelt sailed for Europe to begin the peace process (which would end in bitter fashion for him), Congress and the Treasury continued to raise funds. On February 18, 1919, the War Revenue Act of 1919 was enacted while a fifth and final Liberty Loan was offered on April 21, 1919.<sup>160</sup>

## ENDS

In his model of American political theory, Mead argues that Wilsonian Democrats comprised the fourth and final of school of thought, specifically “that the United States has a moral obligation and an important national interest in spreading American democratic and social values throughout the world, creating a peaceful international community that accepts the rule of law.” The prime example of this philosophy of American exceptionalism was of course Wilson’s Fourteen Points program and his efforts to establish a viable League of Nations. Unfortunately, as noted above, the U.S. Congress, spurred on by their more pacifist constituents appalled by the costs of World War One, failed to ratify the treaty.

From a strategic standpoint, for the United States, when looking at Beaufre’s model, the *Ends Limited, Means Abundant* strategy—“when resources are abundant the mere threat of force may be sufficient to satisfy objectives, if vital enemy interests are not imperiled” seems most applicable in this scenario. Certainly, Wilson and a substantial percentage of the population held out hope that the mere threat of United States participation might be enough to deter Germany from pursuing actions and policies that would invite American intervention, and thus bring its substantial economic capabilities to bear in favor of the allies. Obviously, that

hope went beside the wayside once the Germans engaged once again in unrestricted submarine warfare.

For both the allies and Germany, in particular, Beaufre's *Ends Critical, Means Limited* approach seems the most appropriate description of what actually transpired in the trenches following the failure of the initial German offensive at the beginning of the war—"when objectives are critical, but resources are limited and freedom of action is abridged, piecemeal actions that combine direct and indirect pressures with controlled military force may be effective. This approach favors those that are in a strong defensive position and are content to proceed slowly." On the other hand, while on the surface, it may appear that the allies achieved their strategic objectives, in truth, the fall and replacement of the monarchical systems in Germany and Russia by fascist and communist regimes following the end of the conflict and the subsequent reluctance of Britain and France to confront these regimes (at least that of Nazi Germany) paved the way for the continuation of the war twenty years later with even more horrendous results.

## WAYS

As Ernest and Trevor Dupuy point out

"The bloody stalemate on the Western Front was caused as much by territorial limitations as by the tactical effect of improved firepower. The war started with maneuver in the west (the Schlieffen Plan) and its first decisive clash was won by maneuver (Joffre at the Marne). Only when the maneuvering opponents came to the end of the available land mass (after the Race to the Sea), did the struggle turn into stalemate, with frontal attack and penetration the only solution."<sup>161</sup>

None of the participants in the war were prepared for the lethality of modern weapons despite observing the outcome of the Russo-Japanese War a decade earlier, where wave after wave of Japanese infantry repeatedly assaulted entrenched Russian troops armed with machine guns. The further development of the machine gun, along with quick firing artillery, barbed wire, poison gas, and extensive trench lines made frontal attacks a near suicidal proposition by 1915. As the war dragged on, tactics evolved to where artillery was used to soften up an enemy position before infantry left their trenches in an often futile and bloody assault that at best might gain the attacker a mile or two of territory before grinding to a halt (Table 3.9).<sup>162</sup>

However, the war was not without its tactical innovations. The tank made its first appearance during the Battle of the Somme in 1916 and although

**Table 3.9**

<i>Country</i>	<i>Total force mobilized</i>	<i>% of total Military battle deaths mobilized</i>	<i>% of Military wounded mobilized</i>	<i>% of total dead</i>	<i>% of total</i>	<i>Total killed and wounded total</i>	<i>% of total</i>	<i>Economic and financial cost (\$ million)</i>	<i>% of total</i>
France	8,410,000	20%	1,357,800	16%	33%	5,663,800	67%	49,877	26%
British Empire	8,904,467	21%	908,371	10%	16%	3,029,216	34%	51,975	27%
Russia	12,000,000	28%	1,700,000	14%	39%	8,650,000	72%	25,600	13%
Italy	5,615,000	13%	462,391	8%	7%	1,416,277	25%	18,143	9%
United States	4,355,000	10%	50,585	1%	2%	256,275	6%	32,320	17%
Belgium	267,000	0%	13,715	5%	0%	88,401	33%	10,195	5%
Serbia	707,343	2%	45,000	6%	1%	453,148	64%	2,400	1%
Montenegro	50,000	0%	3,000	6%	0%	13,000	26%	0	0%
Rumania	750,000	2%	335,706	45%	1%	455,706	61%	2,601	1%
Greece	230,000	0%	5,000	2%	0%	132,000	5%	158,000	69%
Portugal	100,000	0%	7,222	7%	0%	20,973	21%	0	0%
Japan	800,000	2%	300	0%	0%	1207	0%	0	0%
Allied	42,188,810	100%	4,889,090	12%	100%	20,206,003	48%	193,667	100%
Subtotal									
Germany	11,000,000	48%	1,808,546	16.0	50%	6,815,689	62%	58,072	67%
Austria-Hungary	7,800,000	34%	922,500	12%	43%	4,842,500	62%	23,706	28%
Turkey	2,850,000	13%	325,000	11.0	5%	2,875,000	100%	3,445	4%
Bulgaria	1,200,000	5%	75,844	6%	2%	503,234	42%	1015	1%



<i>Country</i>	<i>Total force mobilized</i>	<i>% of total Military battle deaths mobilized</i>	<i>% of Military wounded</i>	<i>% of mobilized total</i>	<i>% of Civilian dead</i>	<i>% of total and wounded total</i>	<i>Economic and financial cost (\$ million)</i>	<i>% of total</i>
Central Powers	22,850,000	100%	100%	100%	3,485,000	100%	86,238	100%
Subtotal	0	0%	0%	0%	0	0%	1,750	0%
Neutral Nations	42,188,810	65%	61%	60%	2,507,633	42%	193,667	69%
Subtotal	22,850,000	35%	39%	40%	3,485,000	58%	86,238	31%
Central Powers	0	0%	0%	0%	0	0%	1,750	1%
Subtotal	65,038,810	100%	100%	100	5,992,633.0	100%	281,655	100%

not without several technical drawbacks, demonstrated the potential of mechanized maneuverability that promised to break the stagnation of trench warfare. Likewise, the evolution of the airplane from a reconnaissance to a combat role would eventually lead to the establishment of separate air services along the lines proposed by aviation theorists such as Douhet and American Billy Mitchell. As for the naval arena, the ideas of Mahan and Corbett never really came to fruition in terms of long range gunnery encounters between major fleets. The one exception was the Battle of Jutland, described above, which essentially ended in a draw. The one true innovation was the submarine, which allowed navies to conduct economic warfare on a larger scale, given their greater cruising ranges. Still, the war remained largely a land based conflict, as indicated by the spending patterns alluded to below.

## MEANS

### *Post-War Fiscal Policy*

As the following tables illustrate, the United States did indeed finance the bulk of the war through internal taxes (individual income taxes are included in this column as well), particularly as American entered the war in 1917. In 1914, internal taxes accounted for 52% of federal government receipts; by 1918, some 84% of receipts came through the internal revenue line.

Conversely, the conflict, particularly as concerned the United States, focused on the application of land power. In 1914, the Army was funded at a one to one and one half times rate of the Navy; by 1918, the Army received five times as much funding as its naval counterparts. Veterans compensation, which had been decreasing due to the increasing mortality associated with Civil War survivors, fell as a percentage of total federal expenditures, despite a pickup in the years immediately following World War One (Table 3.10, 3.11, and 3.12).<sup>163,164,165</sup>

### *Post-War Monetary Policy*

The major post war consequence for monetary policy was that the American dollar now replaced the British pound as the base or reserve currency for the vast majority of economic transactions, a position it continues to enjoy today, despite efforts by other countries such as China to establish their own currencies in competition to the dollar.

**Table 3.10**

<i>Year</i>	<i>Individual income taxes (%)</i>	<i>Other internal revenue (%)</i>	<i>Customs (%)</i>	<i>Sale of public lands (%)</i>	<i>Refunds transfers (%)</i>	<i>Other (%)</i>	<i>Total receipts (%)</i>
1914	0%	52%	40%	0%	-1%	8%	100%
1915	0%	61%	31%	0%	-2%	10%	100%
1916	0%	67%	28%	0%	-3%	7%	100%
1917	0%	74%	21%	0%	-2%	8%	100%
1918	0%	87%	5%	0%	-1%	8%	100%
1919	0%	84%	4%	0%	0%	13%	100%
Average	0%	71%	21%	0%	-2%	9%	100%

**Table 3.11**

<i>Year</i>	<i>Department of the Army (%)</i>	<i>Department of the Navy (%)</i>	<i>Veterans compensation (%)</i>	<i>Interest on the public debt (%)</i>	<i>Other (%)</i>	<i>Total outlays (%)</i>
1914	29%	19%	24%	3%	25%	100%
1915	27%	19%	22%	3%	29%	100%
1916	26%	22%	22%	3%	27%	100%
1917	19%	12%	8%	1%	59%	100%
1918	38%	10%	1%	1%	49%	100%
1919	49%	11%	1%	3%	36%	100%
Average	31%	16%	13%	3%	37%	100%

**Table 3.12**

<i>Year</i>	<i>Total receipts (\$000)</i>	<i>Total expenditures (\$000)</i>	<i>Surplus/deficit (\$000)</i>
1914	\$725,117	\$725,525	(\$408)
1915	\$683,417	\$746,093	(\$62,676)
1916	\$761,445	\$712,967	\$48,478
1917	\$1,100,000	\$1,953,857	(\$853,857)
1918	\$3,645,240	\$12,677,359	(\$9,032,119)
1919	\$5,130,042	\$18,492,665	(\$13,362,623)
Average	\$2,007,544	\$5,884,744	(\$3,877,200)

**Table 3.13**

	<i>First Liberty Loan</i>	<i>Second Liberty Loan</i>	<i>Third Liberty Loan</i>	<i>Fourth Liberty Loan</i>	<i>Fifth Liberty Loan</i>	<i>Average</i>
Offered Date	5/14/1917	10/1/1917	4/6/1918	9/28/1918	4/21/1919	
Issued Date	6/15/1917	11/17/1917	5/9/1918	10/24/1918	4/21/1919	
Coupon	3.50%	4.00%	4.25%	4.25%	4.25%	4.05%
Callable (years)	15	10	NA	15	3	11
Maturity (years)	30	25	10	20	4	18
Interest Exempt	Yes	Yes	Yes	Yes	No	
Tax						
Interest Exempt Surtax	Yes	Yes	Yes	Yes	Yes	
Amount Offered (\$B)	\$2.000	\$3.000	\$3.000	\$6.000	\$4.500	\$3.700
Amount Subscribed (\$B)	\$3.035	\$4.618	\$4.177	\$6.959	\$5.250	\$4.808
Oversubscription Rate	52%	54%	39%	16%	17%	36%
Subscription Accepted	\$2.000	\$3.809	\$4.177	\$6.959	\$4.500	\$4.289
Number of Subscribers (million)	4.000	9.400	18.377	22.778	11.803	13.272
Average Subscription	\$759	\$491	\$227	\$306	\$445	\$446
Subscriptions <\$10,000	42%	40%	66%	52%	60%	52%

### *Post-War Debt Policy*

The United States engaged in a series of successful debt offerings once America entered the war. Unlike the allies, America found it relatively easy to raise debt given the relatively pristine state of the country's public credit, as evidenced by their strong over subscription rates. Moreover, virtually all of this debt was floated internally, not surprising given the allies had little if any leftover cash following the purchase of war materiel to invest either domestically or in foreign securities (Table 3.13).<sup>166</sup>

### *Post-War Mobilization Policy*

In terms of Koistinen's model, while the state of military technology might be considered the most important mobilization factor, the relation of the military to American society was equally significant. From a mobilization standpoint, the long period of U.S. neutrality made the ultimate conversion and subsequent reconversion of the economy to a war-time basis far easier—real plant and equipment were added, and because they were added in response to demands from countries at war, they were added in precisely those sectors where they would be needed once the United States entered the war. However, it is important to note that many industrialists resisted conversion at first on the grounds that wartime production was inherently unstable in terms of timing; by the time a plant was converted, the war might very well be over and the manufacturer left with a virtually useless facility, unless management wanted to devote capital expenditures toward reconversion. To that end, producers demanded and received offsets such as government investment in new plant and equipment and faster depreciation rates on existing infrastructure (which improves “book” profitability by the timing of the taxes owed while not affecting the eventual payment of cash taxes).

Moreover, there were constant battles between civilian and military agencies over control of the general mobilization process. The armed services, which had traditionally overseen these activities, resented the presence of civilians, whether government or private sector personnel, as unwanted interlopers in what they believed should be a purely military enterprise. Over time, however, the military came to realize the demands of modern industrial warfare were unlike anything they had ever experienced before. As a result, the armed forces became less obstructive and more willing to work with industry, a partnership that would continue

during World War Two and beyond to become what some now call the “military-industrial complex.”

## NOTES

1. The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/showelection.php?year=1912>, accessed June 6th, 2014.
2. Wilbur D. Jones, *Arming the Eagle: A History of U.S. Weapons Acquisition since 1775* (Fort Belvoir, VA: Defense Systems Management Press, 1999), 212; Walter Russell Mead, *Special Providence: American Foreign Policy and How It Changed the World*, (New York: Taylor and Francis, 2002), 132–161, 164–171; The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/ws/index.php?pid=25831>, accessed June 20th, 2014.
3. Mead, *Special Providence*, xv–xviii.
4. U.S. Army Center for Military History, *American Military History, Volume 1: The Forging of a Nation, 1775–1917* (Washington, DC: Center for Military History), 376; U.S. Army War College, *Army War College Evolution*, <http://www.carlisle.army.mil/usawc/about/historic.cfm>, accessed August 22nd, 2014.
5. U.S. Army Center for Military History, *American Military History, Volume 1: The Forging of a Nation, 1775–1917* (Washington, DC: Center for Military History), 376; Library of Congress, U.S. Statutes at Large, 57th Cong., 2nd sess., 775–780, accessed June 24th, 2014.
6. U.S. Army Center for Military History, *American Military History, Volume 1: The Forging of a Nation, 1775–1917* (Washington, DC: Center for Military History), 376; U.S. Army War College, *Army War College Evolution*, <http://www.carlisle.army.mil/usawc/about/historic.cfm>, accessed August 22nd, 2014.
7. John Keegan, *The First World War* (New York: Vintage Books), 1998, 265–267; U.S. Military Academy, Department of History, <http://www.westpoint.edu/history/SiteAssets/SitePages/World%20War%20I/WWOne02.gif>, accessed June 1st, 2014.
8. Keegan, *The First World War*, 28–36
9. Ibid, 36–39.
10. Ibid, 39–41.

11. Ibid, 41–43.
12. Ernest and Trevor Dupuy, *The Encyclopedia of Military History: from 3,500 B.C. to the Present* (New York: Harper and Row, 1970) 916, 931; Keegan, *The First World War*, 24–25.
13. Nicholas A. Lambert, *Planning Armageddon: British Economic Warfare and the First World War*, (Cambridge, MA: Harvard University Press, 2012), 26, 32, 239–240.
14. U.S. Department of Commerce, *Annual Report of the Commissioner of Navigation for the Fiscal Year Ended June 30th, 1915*, Lambert, *Planning Armageddon*, 239.
15. Lambert, *Planning Armageddon*, 41, 44, 57, 73–74, 79–80, 137, 181.
16. Keegan, *The First World War*, 257.
17. Lambert, *Planning Armageddon*, 87–93; Yale University, Lillian Goldman Law Library, “Laws of War”, [http://avalon.law.yale.edu/20th\\_century/hague03.asp](http://avalon.law.yale.edu/20th_century/hague03.asp); [http://avalon.law.yale.edu/20th\\_century/hague13.asp](http://avalon.law.yale.edu/20th_century/hague13.asp), accessed August 17th, 2014.
18. Dupuy and Dupuy, *Encyclopedia of Military History*, 934.
19. Ivan Bloch, *The Future of War in Its Economic and Political Relations: Is War Now Impossible?* (Stockbridge, MA: Hard Press Editions), 2012; Dupuy and Dupuy, 917.
20. Dupuy and Dupuy, *Encyclopedia of Military History*, 916.
21. Ibid, 919; Norman Angel, *The Great Illusion* (Stockbridge, MA: Hard Press Editions, 2013)
22. U.S. Business Cycle Expansions and Contractions (Boston, MA: National Bureau of Economic Research), <http://www.nber.org/cycles.html>, accessed August 14th, 2014.
23. United States. Bureau of the Census. “Volume 2” in *Historical Statistics of the United States: Colonial Times to 1970* (1975). <https://fraser.stlouisfed.org/title/?id=237#!5808>, accessed on January 6, 2015.
24. United States. Bureau of the Census. “Volume 2” in *Historical Statistics of the United States: Colonial Times to 1970* (1975). <https://fraser.stlouisfed.org/title/?id=237#!5808>, accessed on January 6, 2015.
25. United States. Bureau of the Census. “Volume 2” in *Historical Statistics of the United States: Colonial Times to 1970* (1975). <https://fraser.stlouisfed.org/title/?id=237#!5808>, accessed on January 6, 2015.

26. United States. Bureau of the Census. "Volume 2" in *Historical Statistics of the United States : Colonial Times to 1970* (1975). <https://fraser.stlouisfed.org/title/?id=237#!5808>, accessed on January 6, 2015.
27. Robert D. Hormats, *The Price of Liberty: Paying for America's Wars* (New York: Henry Holt and Company, 2007), 95; Hew Strachan, *Financing the First World War* (Oxford: Oxford University Press), 2004, 67–68.
28. Library of Congress. U.S. Statutes at Large, 78th Congress, 1st sess., 11–117, [http://www.constitution.org/uslaw/sal/036\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/036_statutes_at_large.pdf), accessed June 24th, 2014.
29. Hormats, *The Price of Liberty*, 102; The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/ws/index.php?pid=68517&st=Taft&st1=>, accessed June 20th, 2014.
30. Hormats, *The Price of Liberty*, 104; Public Broadcasting System, *Legislation during the Wilson Administration*, [http://www.pbs.org/wgbh/amex/wilson/portrait/wp\\_legislate\\_02.html](http://www.pbs.org/wgbh/amex/wilson/portrait/wp_legislate_02.html), accessed June 20th, 2014; Library of Congress. U.S. Statutes at Large, 63rd Cong., 1st sess., 114–202, [http://www.constitution.org/uslaw/sal/038\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/038_statutes_at_large.pdf), accessed June 24th, 2014.
31. Lambert, *Planning Armageddon*, 21; Allan H. Meltzer, *A History of the Federal Reserve: Volume 1, 1913–1951* (Chicago: University of Chicago Press, 2003), 9–15.
32. Ronald Chernow, *The House of Morgan: An American Banking Dynasty and the Rise of American Finance* (New York: Groves Press, 1990), 186.
33. Library of Congress, *The Federal Reserve Act of 1913*, Library of Congress. U.S. Statutes at Large, 63rd Cong., 1st sess., [http://www.constitution.org/uslaw/sal/038\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/038_statutes_at_large.pdf), 251–275, accessed August 17th, 2014.
34. Library of Congress. U.S. Statutes at Large, 13th Congress, 3rd sess., 202–203, <http://www.scribd.com/doc/34121180/Pujo-Committee-Report-Report-of-the-Committee-Appointed-Pursuant-to-House-Resolutions-429-and-504-1912-1913-Pujo-Committee-Report>, accessed June 24th, 2014.
35. Library of Congress. U.S. Statutes at Large, 13th Congress, 3rd sess., 202–203, <http://www.scribd.com/doc/34121180/Pujo-Committee-Report-Report-of-the-Committee-Appointed->



- Pursuant-to-House-Resolutions-429-and-504-1912-1913-Pujo-Committee-Report, accessed June 24th, 2014.
36. Meltzer, *A History of the Federal Reserve*, 5.
  37. Ibid, 3.
  38. Meltzer, *A History of the Federal Reserve*, 75–82; William Silber, *When Washington Shut Down Wall Street: The Great Financial Crisis of 1914 and the Origins of American Monetary Superiority* (Princeton, NJ: Princeton University Press, 2014), 18–20.
  39. Meltzer, *A History of the Federal Reserve*, 75–82; Silber, *When Washington Shut Down Wall Street*, 18–20.
  40. Meltzer, *A History of the Federal Reserve*, 5.
  41. Hormats, *The Price of Liberty*, 123–124; Meltzer, *A History of the Federal Reserve* 5, Strachan, *Financing the First World War*, 5–7; Silber, *When Washington Shut Down Wall Street*, 89.
  42. Silber, *When Washington Shut Down Wall Street*, 88; Federal Reserve Bank of St. Louis, *Annual Report of the Secretary of the Treasury, 1913*, [http://fraser.stlouisfed.org/docs/publications/treasar/AR\\_TREASURY\\_1913.pdf](http://fraser.stlouisfed.org/docs/publications/treasar/AR_TREASURY_1913.pdf), accessed June 18th, 2014.
  43. Library of Congress, *The Aldrich-Vreeland Currency Act*, [http://archive.org/stream/jstor-1014509/1014509\\_djvu.txt](http://archive.org/stream/jstor-1014509/1014509_djvu.txt); [http://www.constitution.org/uslaw/sal/035\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/035_statutes_at_large.pdf), 546–553, accessed August 17th, 2014.
  44. Library of Congress, *The Aldrich-Vreeland Currency Act*, [http://archive.org/stream/jstor-1014509/1014509\\_djvu.txt](http://archive.org/stream/jstor-1014509/1014509_djvu.txt); [http://www.constitution.org/uslaw/sal/035\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/035_statutes_at_large.pdf), 546–553, accessed August 17th, 2014.
  45. Library of Congress, *The Federal Reserve Act of 1913*, Library of Congress. U.S. Statutes at Large, 63rd Cong., 1st sess., [http://www.constitution.org/uslaw/sal/038\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/038_statutes_at_large.pdf), 251–275, accessed August 17th, 2014.
  46. United States. Bureau of the Census. “Volume 2” in *Historical Statistics of the United States: Colonial Times to 1970* (1975). <https://fraser.stlouisfed.org/title/?id=237#!5808>, accessed on January 6, 2015.
  47. Dupuy and Dupuy, *Encyclopedia of Military History*, 928–929; Keegan, *The First World War*, 48–51; Lambert, *Planning Armageddon*, 186; Silber, *When Washington Shut Down Wall Street*, 9.
  48. Charles Gilbert, *American Financing of World War One* (Santa Barbara, CA: Greenwood Publishing, 1970), 14–5; Lambert, *Planning Armageddon*, 187; Hugh Rockoff. *America’s Economic Way of War: War and the U.S. Economy from the Spanish-American*

- War to the Persian Gulf War* (Cambridge, UK: Cambridge University Press, 2012), 99; Hew Strachan, *Financing the First World War*, (Oxford, UK: Oxford University Press, 2004), 41; Silber, *When Washington Shut Down Wall Street*, 9–11.
49. Gilbert, *American Financing of World War One*, 14–15; Keegan, *First World War*, 65–66; Lambert, *Planning Armageddon*, 187; Silber, *When Washington Shut Down Wall Street*, 4, 38, 68–70, 79, 104, 114; Strachan, *Financing the First World War*, 29.
  50. Chernow, *The House of Morgan*, 186; Silber, *When Washington Shut Down Wall Street*, 69.
  51. Keegan, *First World War*, 69–70; Lambert, *Planning Armageddon*, 201; Strachan, *Financing the First World War*, 30–40.
  52. Gilbert, *American Financing of World War One*, 19–20; Silber, *When Washington Shut Down Wall Street*, 67, 72–73, 96; Cornell University, National Archives, *The Federal Reserve Act and Amendments*, 35–36, <https://archive.org/stream/cu31924030195238#page/n5/mode/2up>, accessed June 1st, 2014.
  53. Gilbert, *American Financing of World War One*, 19–20; Silber, *When Washington Shut Down Wall Street*, 67, 72–73, 96; Cornell University, National Archives, *The Federal Reserve Act and Amendments*, 35–36, <https://archive.org/stream/cu31924030195238#page/n5/mode/2up>, accessed June 1st, 2014.
  54. The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/ws/?pid=65382>, accessed June 20th, 2014.
  55. Chernow, *The House of Morgan*, 185–186; Silber, *When Washington Shut Down Wall Street*, 102, 118, 121.
  56. Chernow, *The House of Morgan*, 185–186; Silber, *When Washington Shut Down Wall Street*, 102, 118, 121.
  57. Lambert, *Planning Armageddon*, 213, 246–247; Library of Congress, U.S. Statutes at Large, 63rd Cong., 2nd sess., 698–699, [http://www.constitution.org/uslaw/sal/038\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/038_statutes_at_large.pdf), accessed June 24th, 2014.
  58. Dupuy and Dupuy, *Encyclopedia of Military History*, 935–937.
  59. Ibid, 938–940.
  60. Ibid, 937–940.
  61. U.S. Military Academy Department of History, <http://www.west-point.edu/history/SiteAssets/SitePages/World%20War%20I/WWOne25.jpg>, accessed June 1st, 2014.
  62. Dupuy and Dupuy, *Encyclopedia of Military History*, 940–942.

63. Gilbert, *American Financing of World War One*, 26–27; Hormats, *The Price of Liberty*, 109; Silber, *When Washington Shut Down Wall Street*, 119–124, 127, 129.
64. Strachan, *Financing the First World War*, 16. Jerry W. Markham, *A Financial History of the United States. From J. P. Morgan to the Institutional Investor (1900–1970)*, Vol. II, (Armonk New York: M.E. Sharpe, 2002), 31–34.
65. Dupuy and Dupuy, *Encyclopedia of Military History*, 946; Lambert, *Planning Armageddon*, 262–265, 271–272, 276, 352; International Committee of the Red Cross, <http://www.icrc.org/applic/ihl/ihl.nsf/Article.xsp?action=openDocument&documentId=9400EFEB4F19598BC12563CD00517AC7>.
66. International Red Cross (Geneva, Switzerland), February 26th, 1909, <https://www.icrc.org/applic/ihl/ihl.nsf/Article.xsp?action=openDocument&documentId=9400EFEB4F19598BC12563CD00517AC7>, accessed June 10th, 2014.
67. Dupuy and Dupuy, *Encyclopedia of Military History*, 946; Lambert, *Planning Armageddon*, 262–265, 271–272, 276, 352; International Committee of the Red Cross, <http://www.icrc.org/applic/ihl/ihl.nsf/Article.xsp?action=openDocument&documentId=9400EFEB4F19598BC12563CD00517AC7>.
68. Meltzer. *A History of the Federal Reserve*, 74–75; Silber, *When Washington Shut Down Wall Street*, 8, 144.
69. Lambert, *Planning Armageddon*, 326.
70. United States. Department of the Treasury. “Annual Report of the Secretary of the Treasury on the State of the Finances for the Fiscal Year Ended June 30, 1914, with Appendices,” *Annual Report of the Secretary of the Treasury on the State of the Finances (Fiscal Year Ended June 30, 1914)*. <https://fraser.stlouisfed.org/title/?id=194#15560>, accessed on January 19, 2015.
71. Meltzer, *A History of the Federal Reserve*, 74–75; Silber, *When Washington Shut Down Wall Street*, 8, 144.
72. Dupuy and Dupuy, *Encyclopedia of Military History*, 947.
73. Chernow, *The House of Morgan*, 188; Dupuy and Dupuy. *Encyclopedia of Military History*, 947; Keegan, *First World War*, 267–268; Lambert, *Planning Armageddon*, 327–332.
74. U.S. Military Academy, Department of History, <http://www.westpoint.edu/history/SiteAssets/SitePages/World%20War%20I/WWOne11.gif>, accessed June 1st, 2014.

75. Dupuy and Dupuy, *Encyclopedia of Military History*, 952–955.
76. Strachan, *Financing the First World*, 18–20.
77. Ibid, 18–20.
78. Ibid, 18–20.
79. Dupuy and Dupuy, *Encyclopedia of Military History*, 958; Keegan, *First World War*, 265; Lambert, *Planning Armageddon*, 424; Rockoff, *America's Economic Way of War*, 99, 108; Strachan, *Financing the First World War*, 164–165, 192. Brigham Young University, *Wilson's Protest to the Germans*, [http://wwi.lib.byu.edu/index.php/Wilson%27s\\_Protest\\_to\\_the\\_Germans](http://wwi.lib.byu.edu/index.php/Wilson%27s_Protest_to_the_Germans), accessed June 1st, 2014.
80. Lambert, *Planning Armageddon*, 361, 369; The World War One Document Archive, <http://www.gwpda.org/1915/usmarit.html>; U.K. National Archives, [http://www.nationalarchives.gov.uk/pathways/firstworldwar/first\\_world\\_war/p\\_defence.htm](http://www.nationalarchives.gov.uk/pathways/firstworldwar/first_world_war/p_defence.htm).
81. Lambert, *Planning Armageddon*, 361, 369; The World War One Document Archive, <http://www.gwpda.org/1915/usmarit.html>; U.K. National Archives, [http://www.nationalarchives.gov.uk/pathways/firstworldwar/first\\_world\\_war/p\\_defence.htm](http://www.nationalarchives.gov.uk/pathways/firstworldwar/first_world_war/p_defence.htm).
82. Dupuy and Dupuy. *Encyclopedia of Military History*, 947–949.
83. Lambert, *Planning Armageddon*, 425, 427–428, 431–432.
84. Paul Koistinen, *Mobilizing for Modern War*, (Lawrence, KS: University Press of Kansas, 1997) 147; Lloyd N. Scott, *Naval Consulting Board of the United States* (Stockbridge, MA: Hard Press Editions, 2013), 22–23.
85. Koistinen, *Mobilizing for Modern War*, 147; Lloyd N. Scott, *Naval Consulting Board of the United States* (Stockbridge, MA: Hard Press Editions), 2013, 22–23.
86. Lambert, *Planning Armageddon*, 435, 442, 444.
87. Lambert, *Planning Armageddon*, 447–448; Strachan, *Financing the First World War*, 195–196.
88. Lambert, *Planning Armageddon*, 447–448; Strachan, *Financing the First World War*, 195–196.
89. Koistinen, *Mobilizing for Modern War*, 129; Lambert, *Planning Armageddon*, 454.
90. Chernow, *House of Morgan*, 197–198; Silber, *When Washington Shut Down Wall Street*, 138.
91. Lambert, *Planning Armageddon*, 471–472, 477–483; Rockoff, *America's Economic Way of War*, 99.
92. The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/ws/index.php?pid=29556>, accessed June 20th, 2014.

93. Lambert, *Planning Armageddon*, 471–472, 477–483; Rockoff, *America's Economic Way of War*, 99.
94. United States. Department of the Treasury. “Annual Report of the Secretary of the Treasury on the State of the Finances for the Fiscal Year Ended June 30, 1915, with Appendices,” *Annual Report of the Secretary of the Treasury on the State of the Finances* (Fiscal Year Ended June 30, 1915), <https://fraser.stlouisfed.org/title/?id=194#!5561>, accessed on January 20, 2015.
95. Board of Governors of the Federal Reserve System (United States), 1935- and Federal Reserve Board, 1914–1935. “1915,” *Annual Report of the Board of Governors of the Federal Reserve System* (1915), <https://fraser.stlouisfed.org/title/?id=117#!2473>, accessed on January 20, 2015.
96. Dupuy and Dupuy, *Encyclopedia of Military History*, 959.
97. Dupuy and Dupuy, *Encyclopedia of Military History*, 959.
98. Dupuy and Dupuy, *Encyclopedia of Military History*, 959.
99. U.S. Military Academy, Department of History, <http://www.west-point.edu/history/SiteAssets/SitePages/World%20War%20I/WWOne45.jpg>, accessed June 1st, 2014.
100. Jones, *Arming the Eagle*, 177; Rockoff, *America's Economic Way of War*, 99, 110; Library of Congress, U.S. Statutes at Large, 64th Cong., 1st sess., 166–217, [http://www.constitution.org/uslaw/sal/039\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/039_statutes_at_large.pdf), accessed June 24th, 2014.
101. Jones, *Arming the Eagle*, 177; Rockoff, *America's Economic Way of War*, 99, 110; Library of Congress, U.S. Statutes at Large, 64th Cong., 1st sess., 166–217, [http://www.constitution.org/uslaw/sal/039\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/039_statutes_at_large.pdf), accessed June 24th, 2014.
102. Dupuy and Dupuy, *Encyclopedia of Military History*, 960–961.
103. Dupuy and Dupuy, *Encyclopedia of Military History*, 960–961.
104. Jones, *Arming the Eagle*, 181; Koistinen, *Mobilizing for Modern War*, 158–159. Library of Congress, U.S. Statutes at Large, 64th Cong., 1st sess., 728–739, [http://www.constitution.org/uslaw/sal/039\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/039_statutes_at_large.pdf), accessed June 24th, 2014.
105. Jones, *Arming the Eagle*, 181; Koistinen, *Mobilizing for Modern War*, 158–159. Library of Congress, U.S. Statutes at Large, 64th Cong., 1st sess., 728–739, [http://www.constitution.org/uslaw/sal/039\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/039_statutes_at_large.pdf), accessed June 24th, 2014.
106. Roy G. Blakey, The New Revenue Act, *The American Economic Review*, Volume 6, No. 4, December, 1916, 837–850, <https://archive.org/details/jstor-1827532>, accessed June 18th, 2014; Hormats,

- The Price of Liberty*, 110; Gilbert, *American Financing*, 77–78; Rockoff, *American Way of War*, 116; Library of Congress, U.S. Statutes at Large, 64th Cong., 1st sess., 756–801, [http://www.constitution.org/uslaw/sal/039\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/039_statutes_at_large.pdf), accessed June 24th, 2014.
107. Kathleen Burk, *Britain, America, and the Sinews of War* (Abingdon, UK: Taylor and Francis, 2014), John Maynard Keynes, *The Economic Consequences of the Peace* (New York: Harcourt, Brace and Howe), 1920, 255–257.
108. Silber, *When Washington Shut Down Wall Street*, 132–150; Koistinen, *Mobilizing for Modern War*, 132–133; Strachan, *Financing the First World War*, 199–201.
109. Silber, *When Washington Shut Down Wall Street*, 132–150; Koistinen, *Mobilizing for Modern War*, 132–133; Strachan, *Financing the First World War*, 199–201.
110. United States. Department of the Treasury. “Annual Report of the Secretary of the Treasury on the State of the Finances for the Fiscal Year Ended June 30, 1916, with Appendices,” *Annual Report of the Secretary of the Treasury on the State of the Finances* (Fiscal Year Ended June 30, 1916), <https://fraser.stlouisfed.org/title/?id=194#!5562>, accessed on January 19, 2015.
111. Board of Governors of the Federal Reserve System (United States), 1935- and Federal Reserve Board, 1914–1935. “1916,” *Annual Report of the Board of Governors of the Federal Reserve System* (1916), <https://fraser.stlouisfed.org/title/?id=117#!2474>, accessed on January 19, 2015.
112. The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/ws/index.php?pid=29557>, accessed June 20th, 2014.
113. Dupuy and Dupuy, *Encyclopedia of Military History*, 967–968; Keegan, *First World War*, 311.
114. Koistinen, *Mobilizing for Modern War*, 246.
115. The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/ws/index.php?pid=29557&st=&st1=>, accessed June 20th, 2014.
116. The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/ws/index.php?pid=25832>, accessed June 20th, 2014.

117. Gilbert, *American Financing*, 80–83; Hormats, *The Price of Liberty*, 115; Keegan, *First World War*, 351; Koistinen, *Mobilizing for Modern War*, 181–189; Rockoff, *America's Economic Way of War*, 100; Strachan, *Financing the First World War*, 81; Library of Congress, U.S. Statutes at Large, 64th Cong., 2nd sess., 1000–1004, [http://www.constitution.org/uslaw/sal/039\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/039_statutes_at_large.pdf), accessed June 24th, 2014. U.S. Army Center for Military History, *Mobilization*, <http://www.history.army.mil/documents/mobpam.htm>.
118. Gilbert, *American Financing*, 80–83; Hormats, *The Price of Liberty*, 115; Keegan, *First World War*, 351; Koistinen, *Mobilizing for Modern War*, 181–189; Rockoff, *America's Economic Way of War*, 100; Strachan, *Financing the First World War*, 81; Library of Congress, U.S. Statutes at Large, 64th Cong., 2nd sess., 1000–1004, [http://www.constitution.org/uslaw/sal/039\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/039_statutes_at_large.pdf), accessed June 24th, 2014. U.S. Army Center for Military History, *Mobilization*, <http://www.history.army.mil/documents/mobpam.htm>.
119. Koistinen, *Mobilizing for Modern War*, 134; Strachan, *Financing the First World War*, 201; Federal Reserve Bulletin, March 1st, 1917, 1–2, [http://books.google.com/books?id=0nmJosY9Sn0C&pg=PA424&lpg=PA424&dq=Federal+Reserve+Statement+of+March+8th,+1917&source=bl&ots=T8X7ByrZyV&sig=ObJmxJy6Uq\\_wnULxVU5IeJFu6lc&hl=en&sa=X&ei=V7CoUrKZMYqIkQfTkYDQAg&ved=0CC4Q6AEwAA#v=onepage&q=Federal%20Reserve%20Statement%20of%20March%208th%2C%201917&f=false](http://books.google.com/books?id=0nmJosY9Sn0C&pg=PA424&lpg=PA424&dq=Federal+Reserve+Statement+of+March+8th,+1917&source=bl&ots=T8X7ByrZyV&sig=ObJmxJy6Uq_wnULxVU5IeJFu6lc&hl=en&sa=X&ei=V7CoUrKZMYqIkQfTkYDQAg&ved=0CC4Q6AEwAA#v=onepage&q=Federal%20Reserve%20Statement%20of%20March%208th%2C%201917&f=false).
120. Dupuy and Dupuy. *Encyclopedia of Military History*, 972; Keegan, *First World War*, 332–340.
121. Keegan, *First World War*, 354.
122. Dupuy and Dupuy. *Encyclopedia of Military History*, 968–969.
123. Keegan, *First World War*, 354.
124. Gilbert, *American Financing*, 120–124, 145; Hormats, *The Price of Liberty*, 124; Meltzer, History of the Federal Reserve, 85, Table 3.2, 87; Rockoff, *America's Economic Way of War*, 100; Table 5.1, 120.
125. Gilbert, *American Financing*, 124–128; Curtis N. Hitchcock, The War Industries Board: Its Development, Organization, and Functions, “*The Journal of Political Economy*”, Volume 26, No. 6, June, 1918, 545–566, <http://www.jstor.org/stable/1822495?seq=2>, accessed June 1st, 2014; Koistinen, *Mobilizing for Modern War*, 136, 198, 201–207; Rockoff, *America's Economic Way of War*, 100.

126. Hormats, *The Price of Liberty*, 113; Keegan, *First World War*, 352; Rockoff, *America's Economic Way of War*, 100; The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/ws/index.php?pid=65403>, accessed June 20th, 2014; Library of Congress, U.S. Statutes at Large, 65th Cong., 1st sess., 76–83, <http://www.legisworks.org/congress/65/publaw-12.pdf>, accessed June 24th, 2014; Library of Congress, U.S. Statutes at Large, 65th Cong., 1st sess., 276–287, <http://www.legisworks.org/congress/65/publaw-41.pdf>, accessed June 24th, 2014.
127. Dupuy and Dupuy, *Encyclopedia of Military History*, 969–970.
128. Dupuy and Dupuy, *Encyclopedia of Military History*, 969–970.
129. Gilbert, *American Financing*, Table 45, 120–121, 151, table 52, 168, 163–170; Hormats, *The Price of Liberty*, 124; Rockoff, *America's Economic Way of War*, Table 5.1, 120.
130. Roy G. Blakey, The War Revenue Act of 1917, “*The Journal of Political Economy*”, volume 7, no. 4, December 1917, 791–815; Gilbert, *American Financing*, 96–97, Table 45, 120–121, 153; Hormats, *The Price of Liberty*, 112, 117; Rockoff, *America's Economic Way of War*, 117; Library of Congress, U.S. Statutes at Large, 65th Cong., 1st sess., 300–338, [http://www.constitution.org/uslaw/sal/040\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/040_statutes_at_large.pdf), accessed June 24th, 2014.
131. Library of Congress, U.S. Statutes at Large, 65th Cong., 1st sess., 411–426, [http://www.constitution.org/uslaw/sal/040\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/040_statutes_at_large.pdf), accessed June 24th, 2014.
132. Kenneth Garbade, *Birth of a Market: The U.S. Treasury Securities Market from the Great War to the Great Depression*, (Cambridge, MA: The MIT Press, 2012), 117.
133. United States. Department of the Treasury. “Annual Report of the Secretary of the Treasury on the State of the Finances for the Fiscal Year Ended June 30, 1917, with Appendices,” *Annual Report of the Secretary of the Treasury on the State of the Finances* (Fiscal Year Ended June 30, 1917), <https://fraser.stlouisfed.org/title/?id=194#!5563>, accessed on January 19, 2015.
134. The History Channel. *The Treaty of Brest-Litovsk*, <http://www.history.com/this-day-in-history/treaty-of-brest-litovsk-concluded>, accessed June 24th, 2014.
135. Board of Governors of the Federal Reserve System (United States), 1935- and Federal Reserve Board, 1914–1935. “1917,” *Annual*



- Report of the Board of Governors of the Federal Reserve System* (1917), <https://fraser.stlouisfed.org/title/?id=117#12475>, accessed on November 23, 2014.
136. Dupuy and Dupuy, *Encyclopedia of Military History*, 976–977; Keegan, *First World War*, 372–377, 380–381, 390, 393.
  137. Dupuy and Dupuy, *Encyclopedia of Military History*, 976–977; Keegan, *First World War*, 372–377, 380–381, 390, 393.
  138. Dupuy and Dupuy, *Encyclopedia of Military History*, 976–977; Library of Congress, U.S. Statutes at Large, 65th Cong., 3rd. sess., 1057–1152, [http://www.constitution.org/uslaw/sal/040\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/040_statutes_at_large.pdf), accessed June 24th, 2014.
  139. Department of State, *Wilson's Fourteen Points*, <http://history.state.gov/milestones/1914-1920/fourteen-points>, accessed June 20th, 2014.
  140. Koistinen, *Mobilizing for Modern War*, 231–236.
  141. Ibid, 261, 269.
  142. Ibid, 246–248.
  143. Jones, *Arming the Eagle*, 181; Koistinen, *Mobilizing for Modern War*, 222–224; Library of Congress, U.S. Statutes at Large, 65th Cong., 2nd sess., 556–557, [http://www.constitution.org/uslaw/sal/040\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/040_statutes_at_large.pdf), accessed June 24th, 2014.
  144. Gilbert, *American Financing*, 129–132, Table 45, 120–121, 153–155; Hormats, *The Price of Liberty*, 124–125; Rockoff, *America's Economic Way of War*, Table 5.1, 120.
  145. Gilbert, *American Financing*, 104–105.
  146. Garbade, *Birth of a Market*, 117; Gilbert, *American Financing*, 156.
  147. U.S. Military Academy, Department of History, <http://www.west-point.edu/history/SiteAssets/SitePages/World%20War%20I/WWOne18.jpg>, accessed June 1st, 2014.
  148. Dupuy and Dupuy, *Encyclopedia of Military History*, 979.
  149. Ibid, 979.
  150. Ibid, 980.
  151. Ibid, 980.
  152. Ibid, 980.
  153. Ibid, 981–982.
  154. U.S. Military Academy, Department of History, <http://www.west-point.edu/history/SiteAssets/SitePages/World%20War%20I/WWOne19.jpg>, accessed June 1st, 2014.

155. Dupuy and Dupuy, *Encyclopedia of Military History*, 982–985; Mitchell Yockelson, *Borrowed Soldiers: Americans Under British Command, 1918* (Norman, OK: University of Oklahoma Press, 2008).
156. Dupuy and Dupuy, *Encyclopedia of Military History*, 982–985; Yockelson, *Borrowed Soldiers*.
157. Dupuy and Dupuy, *Encyclopedia of Military History*, 982–985; Yockelson, *Borrowed Soldiers*.
158. United States. Department of the Treasury. “Annual Report of the Secretary of the Treasury on the State of the Finances for the Fiscal Year Ended June 30, 1918, with Appendices,” *Annual Report of the Secretary of the Treasury on the State of the Finances* (Fiscal Year Ended June 30, 1918), <https://fraser.stlouisfed.org/title/?id=194#!5564>, accessed on January 19, 2015.
159. Board of Governors of the Federal Reserve System (United States), 1935- and Federal Reserve Board, 1914–1935. “1918,” *Annual Report of the Board of Governors of the Federal Reserve System* (1918), <https://fraser.stlouisfed.org/title/?id=117#!2476>, accessed on January 19, 2015.
160. Gilbert, *American Financing*, 110–115; Library of Congress, U.S. Statutes at Large, 65th Cong., 2nd, sess. 1057–1152, [http://www.constitution.org/uslaw/sal/040\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/040_statutes_at_large.pdf), accessed June 24th, 2014.
161. Dupuy and Dupuy, *Encyclopedia of Military History*, 916.
162. Ibid, 990.
163. United States. Bureau of the Census. “Volume 2” in *Historical Statistics of the United States: Colonial Times to 1970* (1975). <https://fraser.stlouisfed.org/title/?id=237#!5808>, accessed on January 6, 2015.
164. United States. Bureau of the Census. “Volume 2” in *Historical Statistics of the United States: Colonial Times to 1970* (1975). <https://fraser.stlouisfed.org/title/?id=237#!5808>, accessed on January 6, 2015.
165. United States. Bureau of the Census. “Volume 2” in *Historical Statistics of the United States: Colonial Times to 1970* (1975). <https://fraser.stlouisfed.org/title/?id=237#!5808>, accessed on January 6, 2015.
166. Rockoff, *America’s Economic Way of War*, Table 5.1, 120–121.

## Defeating the Axis of Evil: Resourcing World War Two

### ENDS

#### *Pre-War Political Culture*

Much of the grand strategy of World War Two revolved around economics. Germany, under the leadership of Adolph Hitler, had embraced a measured strategy of territorial expansion (Lebensraum) each step attempting to test allied resolve. In March 1938, Germany achieved “Anschluss” or the political annexation of Austria, creating the so called “Greater Germany.” Later that year, they occupied the German speaking Sudetenland region of western Czechoslovakia. The stage was set for Hitler’s most audacious move of all, a joint assault with the Soviet Union on Poland. Each time, the allies failed to confront the Germans, who were still considerably weaker than a combination of Britain and France. Eventually, Hitler would turn his eyes toward the oil fields of his erstwhile Soviet allies, a campaign that would end in disaster.

Japan, nearly devoid of natural resources, likewise looked to guarantee its economic future by striking into East and Southeast Asia, in order to secure precious energy supplies and other commodities such as rubber. American military planners focused on the Japanese threat to the

Philippines; as such they looked to hold the islands pending the arrival of the American fleet from its anchorage at Pearl Harbor. The successful surprise attack on December 7, 1941, turned that strategy upside down. The British likewise deemed the most probably Japanese line of attack to be against Singapore; to that end, the Royal Navy deployed to protect against a seaward movement. They completely ignored the idea of an offensive through difficult terrain against the unprotected landward side of the harbor, and ultimately paid a dear price for this ignorance.<sup>1</sup>

## WAYS

### *Pre-War Military Strategy*

Going into the conflict, the combatants differed on their approach to strategy. The British and French, based on their World War One experience, prepared for World War Two in much the same manner. Britain would rely on the same strategy it employed in the first war: The superiority of allied resources, particularly those of the United States, coupled a naval blockade and the passage of time would wear the Germans down. The French meanwhile deployed its armed forces to counter another thrust through Belgium and Holland, depending on the set of fortifications known as the “Maginot Line” to cover her other flank. The Germans however did not stand still, based on their experience of World War One, as Ernest and Trevor Dupuy noted:

“Between the World Wars, the Germans had intensively studied ways and means of overcoming the deficiencies which had stopped their 1918 offensives just short of victory. They came to the conclusion that the tank provided the answer to maintaining the momentum of a breakthrough, and that self-propelled artillery and air support would the firepower required when the tanks and other attacking units moved too fast for conventional artillery to keep up. As to resupply and reinforcement, other track laying vehicles and cross country trucks were designed to assure resupply and reinforcement to the armored spearheads, while the speed of the advance was expected to avoid the shell cratered morasses of World War I battlefields.”<sup>2</sup>

Unlike their opponents, the Germans were determined not to repeat the mistakes of World War One, strategically, operationally, tactically, and economically. Hence, the development of the blitzkrieg doctrine described above; in other words, Germany sought victory with forces in place utilizing new and improved technologies such as close air support planes, the

tank, and the submarine. Unlike the allies, Germany planned to rely on the weapons and equipment in hand to achieve a swift victory, rather than planning for a gradual buildup over time, as had been the case with the United States, for example, in World War One (and eventually World War Two). James Schlesinger referred to this policy as “armament in width” as opposed to the allied approach of “armament in depth,” whereby economic production quickly shifted from consumer products to war material, as had been the case in World War One.<sup>3</sup>

However, armament in width proved to be an unsuccessful policy; by 1942, despite the territorial gains achieved in 1940 and 1941, the German government realized the war would be a longer one than they had anticipated. While the Germans did increase war production dramatically, even in the face of an increasingly effective allied strategic bombing offensive targeting the German war economy. From an economic standpoint however, this realization came much too late; Germany could not expand production to the same levels as the allies who were also busy increasing their industrial capacity.<sup>4</sup>

Despite the strong pacifist undercurrent then prevalent in the United States, the American military was not caught completely unprepared for war anywhere in the world. The Joint Army-Navy Board (the forerunner of the Combined Chiefs of Staff), had developed a number of color coded plans dealing with specific threats to specific regions as follows:

- War Plan Black was a plan for war with Germany
- War Plan Gray dealt with invading a Caribbean republic
- War Plan Brown dealt with an uprising in the Philippines
- War Plan Tan was for intervention in Cuba
- War Plan Red for Great Britain
- War Plan Orange for Japan
- War Plan Yellow dealt with war in China
- War Plan Green involved war with Mexico
- War Plan Indigo involved an occupation of Iceland
- War Plan Purple dealt with invading a South American republic
- War Plan Violet covered Latin America
- War Plan White dealt with a domestic uprising in the United States<sup>5</sup>

These plans would later be subsumed in 1939 into a series of so-called Rainbow plans to distinguish them from the earlier individual color coded war plans:

1. Rainbow 1 (WPL42): Limited action in order to prevent a violation of the Monroe Doctrine as far south as ten degrees south latitude. This plan was approved by the Secretaries of War and Navy on 14 August 1939.
2. Rainbow 2 (WPL-43): Rainbow 1 in first priority followed by concerted action by the United States, Great Britain, and France against the Fascist powers. U.S. forces responsible solely for the Pacific.
3. Rainbow 3 (WPL44): Rainbow 1 in first priority followed by projecting American forces into the western Pacific.
4. Rainbow 4 (WPL-45) assumed U.S. Army forces would be sent to the southern part of South America, and a strategic defensive, as in RAINBOW 1, was to be maintained in the Pacific until the situation in the Atlantic permitted transfer of major naval forces for an offensive against Japan.
5. Rainbow 5 (WPL46): Rainbow 1 in first priority followed by U.S. armed forces into east Atlantic or Europe and Africa in concert with Great Britain and France. (Modified to conform to the course of the war in Europe during 1940 until December 1941.)<sup>6</sup>

However, after the 1940 election, Admiral Harold Stark, the Chief of Naval Operations (CNO), penned a letter to President Roosevelt, outlining his thoughts about the upcoming conflict, which he was sure was coming. He proposed four potential strategic options labeled A to D for the president: pursue an isolationist policy that would be popular with many Americans; conduct an offensive in the Pacific; wage offensives in both the Atlantic and Pacific; or conduct offensive operations in Europe against the Germans while waging a defensive war against the Japanese in the Pacific. Arguing the United States's primary enemy was Germany and not Japan on the grounds that Britain had to be defended at all costs, he recommended Option D. After careful consideration, President Franklin Delano Roosevelt (FDR) concurred and authorized the American chiefs of staff to meet secretly with their British counterparts to develop such a strategy.<sup>7</sup>

### *Pre-War Operational Strategy*

From an operational perspective, while military thought stagnated in much of the west during the interwar years, the same could not be said of Germany. As noted above, the Germans built on the success of their innovative infantry tactics of World War One by aligning these concepts with new technologies, such as the tank, self-propelled artillery, and the airplane to maintain offensive momentum, that, in its absence, often resulted in stalemated trench warfare. Support vehicles were likewise outfitted with similar mobility. German force structure reflected this emphasis. The Wehrmacht fielded three types of divisions: tank heavy armored divisions, truck oriented motorized divisions,

and light infantry divisions. Airborne troops were assigned to the Luftwaffe, which also concentrated on the acquisition of ground support aircraft such as the Stuka dive bomber as opposed to heavy bombers more suited for the strategic air offensives mounted by the British and Americans, reflecting doctrinal differences between Germany and the allies. The Germans also adopted a simplified command structure as well, consisting of the Oberkommando der Wehrmacht or OKW (the German supreme command), Oberkommando der Heeres or OKH (the Army high command), Oberkommando der Marine or OKM (the Navy high command) and the various Army Groups.<sup>8</sup>

As for the allies, the period between 1922 and 1939 was largely a period of retrenchment. In terms of ground forces, the command structure was much more complicated and unwieldy, not surprising given the nature of coalition warfare. From an operational perspective, the British and French, unlike the Germans, chose not to establish tank heavy formation acting as the spearhead of an assault. Reflecting another difference between Germany and the allies, the British and French opted to assign their armored assets in support of infantry formations, acting as mobile fire support platforms.<sup>9</sup>

Meanwhile, in the United States, the National Defense Act of 1920 enacted on June 4, 1920:

“rejected the theory of an expansible Regular Army that Army leaders had urged since the days of John C. Calhoun. In its place the new defense act established the Army of the United States as an organization of three components: the standing Regular Army, the National Guard, and the Organized Reserves. That component consisted of the Officers’ Reserve Corps and the Enlisted Reserve Corps, two distinct organizations. Each of the three Army components was to be so regulated in peacetime that it could contribute its appropriate share of troops in a war emergency.”<sup>10</sup>

On the naval front, even following the Washington Naval Conference of 1922, which sought to restrict the size of combat fleets, the United States, Britain, and Japan possessed major fleets incorporating aircraft carriers and submarines; all sides likewise sought to develop advanced amphibious assault tactics, employing mechanized land craft. Under its proposed 1939 Plan Z, Germany planned to field ten battleships and four aircraft carriers along with a small fleet of U-boats. However, almost no work had been done on the surface vessels by the time hostilities commenced; as such, Germany would be forced to rely almost exclusively on unrestricted submarine warfare.<sup>11</sup>

There were a number of different approaches to naval force structure by several of the major combatants at the beginning of the war. For example, approximately 60% of the U.S. Navy consisted of destroyers and auxiliary ships designed to support five carrier battle groups; less emphasis was placed on submarines. By contrast, Japan, possessing three times as many carriers as the United States by this time, devoted a higher percentage of her force structure to destroyers and submarines. Britain, despite possessing as many aircraft carriers than any other nation at the time, focused on destroyers, cruisers, and submarines; France likewise had a similar force structure. The German fleet consisted of a higher percentage of submarines than the other major combatants, no doubt a reflection of its success with undersea warfare in World War One. Finally, in somewhat of a surprise, the Italian navy possessed more submarines than any other country.<sup>12</sup> By 1937, all of the previous naval treaties had expired and all of the major powers began rebuilding their fleets. In 1938, Congress passed the Naval Act of 1938 (also known as the Vinson Act, after its Congressional Sponsor, Senator Carl Vinson, (D-MS)). The Act substantially increased the authorized tonnage of a number of different classes of ships; this legislation was followed by two other acts that added new ships and aircraft to the fleet while also initiating new wartime procurement policies.<sup>13</sup> In addition, the pre-war naval establishment was reorganized as well.<sup>14</sup>

Finally, the airpower theorists like Douhet and Mitchell would finally have their day in court. The British established a separate air element, the Royal Air Force, which along with the U.S. Army Air Forces (AAF), would mount a strategic bombing offensive beginning early in the war. On July 2, 1926, Congress passed the Air Corps Act, largely as a compromise between those who desired an independent air force and the more conservative elements in the senior ranks of the Army who saw air power as supplementary to ground operations. In effect, however, the conservatives won: "the change in designation meant change in status: the Air Corps was still a combatant branch of the Army with less prestige than the infantry."<sup>15</sup>

However, as discussed below, casualties were heavy during the allied heavy strategic bombing offensives until the United States developed the first long-range fighter escort, the P-51 Mustang, possessing the ability to accompany heavy bombers on their raids over Germany. The German Luftwaffe and Soviet Red Air Force by contrast took a different approach respectively, concentrating on the acquisition of ground support aircraft, such as the Stuka dive bomber, as opposed to heavy bombers more suited



for the strategic air offensives mounted by the allies, once again reflecting doctrinal differences between Germany and the allies.<sup>16</sup>

In terms of American force structure, as Wilbur Jones noted, “National defense was compartmentalized, allocations of military hardware were divergent, and inter-service rivalries and jealousies were rampant, all undermining the armed forces efficiency.” Moreover, intra-service rivalry plagued the American armed forces. The AAF noted with no small amount of envy the independence of their British counterparts; its leadership pushed hard for operational freedom, particularly when it came to strategic bombing offensives. To say the AAF was less interested in close air support than the Germans and Russians is arguably a bit of an understatement; the development of attack helicopters and their associated employment doctrine prior to the Vietnam War was a direct consequence of this reluctance.<sup>17</sup>

## MEANS

### *Pre-War Economic Culture*

It is no secret that the world, including the United States, suffered from a major economic downturn lasting from the late 1920s to early 1930s. What most readers probably do not realize is there were a number of similar economic crises prior to the beginning of World War Two. On average, these downturns lasted on average eighteen months (Table 4.1).<sup>18</sup>

The nature of the American economy had changed as well. Following the massive merger movements of the late nineteenth and early twentieth centuries, a number of oligopolistic industry sectors emerged. Michael Porter defined an oligopolistic industry as being “in between a monopoly, where there is only one firm and the perfectly competitive industry where

**Table 4.1**

<i>Peak date</i>	<i>Trough date</i>	<i>Peak to trough months</i>
1/1/1920	7/1/1921	23
5/1/1923	6/1/1924	13
10/1/1926	11/1/1927	24
8/1/1929	3/1/1933	23
5/1/1937	6/1/1938	7
Average		18

there are so many firms and entry is so easy that firms do not affect each other but respond to overall market conditions.” Labor unions also saw a significant increase in membership, tripling from three million to nine million members, largely in response to the establishment of large industrial trusts such as Standard Oil and U.S. Steel.<sup>19</sup>

The German economy under Hitler embraced the ideas of British economist John Maynard Keynes. Hitler, like Keynes, believed in deficit budgeting, heavy state investment in public works in order to put the average German back to work, and the destruction of trade unions, believed by Hitler to be hotbeds of Communist political activity. While not devoid of natural resources (the country was nearly self-sufficient in food, iron ore and coal but short on rubber and oil), the Germans developed a number of relationships guaranteeing them access to necessary raw materials in the event of war. Moreover, Germany did not fully mobilize her economy until after the disastrous defeat in front of Moscow in 1943.<sup>20</sup>

Still, the Germans entered the war in relatively good shape from an economic standpoint; not only did they possess resources of their own or could acquire them from friendly countries such as the Franco regime in Spain, but also the conquered territories provided additional sources of raw materials and voluntary or forced labor. The British, by contrast, produced all the arms it needed with an ability to export any surplus. However, as had been the case dating back to the War of 1812, the British were notoriously short of domestically grown foodstuffs, producing only enough to satisfy half of its requirements and as such remained dependent on the United States for these supplies. Hence, the British fear of a resumption of unrestricted warfare seen in World War One.<sup>21</sup>

Finally, as for the Japanese, they were almost devoid of natural resources, being a net importer of raw materials, reflecting Japan’s heavy reliance on these imports. Japan imported 60% of its aluminum, 85% of her iron ore, 100% of her nickel, 80% of her oil, and 40% of her steel.<sup>22</sup> In addition, the agricultural base likewise could not support the growing Japanese population. However, between the growth in exports and the raw materials and foodstuffs obtained initially from China and later elsewhere in Southeast Asia, Japan had been able to meet most of her domestic needs with the exception of rubber and oil. In retrospect, the American threat to withhold these commodities in order to force a halt in Japan’s expansionary policy in the Far East became a major reason why Tokyo felt it had no choice but to implement a military solution to the situation.<sup>23</sup>

However, Japan also possessed an equally important material weakness usually unremarked upon by scholars studying the economic prologue to the war:

“The international economic fate of Japan had dangled by a silken thread for eighty years. Since its emergence as a trading nation in the 1860s, Japan had derived most of its earnings of dollars from the export of silk for fashionable women’s clothing. The prosperous trade had been an engine of Japanese growth and power. From its peak in 1929, sericulture afforded a livelihood to 2.2 million Japanese households. Raw silk exports, nearly all to the United States, enriched the nation’s coffers by \$363 million that year. Imports of raw silk constituted America’s greatest import of value and supplied the material for a great manufacturing industry.<sup>24</sup>

Japan would soon feel the force of the 1917 Trading with the Enemy Act, although it remained to be seen whether this was intended to curb Japanese territorial ambitions or strangle her outright.”<sup>25</sup>

### *Pre-War Fiscal Policy*

Prior to the war, income taxes provided the bulk of U.S. federal government revenue, which is not surprising given that these taxes had largely financed World War One (income taxes were included as part of the other internal revenue). Tax rates, raised during the war, were reduced after the end of the conflict but not to pre-war levels, largely due to veteran benefits and interest on the federal debt accruing from World War One. Rates were also raised in the early years of the Depression, once again reflecting fears related to the federal debt, which remained stubbornly large. Roosevelt, like Jefferson before him, was a strong believer in balanced budgets; he would also insist that taxes pay an even larger part of the costs of World War Two than in World War One. In line with his political principles, he was insistent the tax burden be shared equally; to that end, ex-soldiers’ bonus payments were reduced. From an expenditure perspective, little was spent on the armed forces relative to historical percentages between the war years in favor of domestic programs such as social security. This spending is reflected where, after years of surplus following World War One, the country began running deficits on an annual basis.<sup>26</sup>

On August 30, 1935, Congress passed the Revenue Act of 1935. In addition to a large increase in corporate income taxes, another important facet contained in the legislation was the introduction of the wealth tax; marginal income and inheritance taxes were also raised.<sup>27</sup> The following year, on June 22, 1936, Congress passed the Revenue Act of 1936, enacting a graduated tax on undistributed corporate profits. However, by 1938, in the face of determined resistance by Republicans and conservative Democrats, who attempted to repeal the undistributed profits tax while at the same time allowing corporations greater flexibility in reducing capital gains losses, Roosevelt concluded any additional tax increases were unlikely to pass Congress. Instead, he turned, as he had before during the New Deal, to fiscal solutions, in this case, such as significant deficit spending, in order to spur economic growth (Tables 4.2, 4.3, and 4.4).<sup>28,29,30,31</sup>

### *Pre-War Monetary Policy*

There had been much activity in the world of monetary policy beginning in the 1930s. Pre-war monetary policy was very expansionary prior to the beginning of the war. As had been the case in World War One, the United States was seen as a safe haven for foreign assets, especially those owned by wealthy Europeans. This flow of assets, in particular gold, increased substantially during the American period of neutrality. The Federal Reserve could have “sterilized this flow of gold by selling bonds from its portfolio for gold but chose not to; as a result, the American money supply increased by approximately eleven percent between the initiation of European hostilities in September, 1939 and the Japanese attack on Pearl Harbor in December, 1941.”<sup>32</sup> However, the feud between the Treasury and the Federal Reserve, which had begun prior to World War One, continued unabated in the 1930s over who would control monetary policy. Meanwhile, the Gold Reserve Act of 1934 outlawed the possession of most private individuals who were then forced to sell these assets to the government; the metal was also arbitrarily revalued upward \$20.67 to \$35 per troy ounce and used to establish the Exchange Stabilization Fund (ESF).

Personnel issues also clouded the Treasury–Federal Reserve relationship. Henry Morgenthau was appointed as the Treasury Secretary on June 30, 1934; his counterpart, Mariner Eccles, was named chairman of the Federal Reserve Board of Governors later in November. The two had diametrically opposed views of government finance. Much like Roosevelt,

**Table 4.2**

<i>Year</i>	<i>Other internal revenue (%)</i>	<i>Customs (%)</i>	<i>Sale of public lands (%)</i>	<i>Refunds transfers (%)</i>	<i>Other (%)</i>	<i>Total receipts (%)</i>
1919	84%	4%	0%	0%	13%	100%
1920	81%	5%	0%	-1%	15%	100%
1921	83%	6%	0%	-1%	13%	100%
1922	80%	9%	0%	-2%	13%	100%
1923	68%	15%	0%	-4%	21%	100%
1924	72%	14%	0%	-4%	17%	100%
1925	71%	15%	0%	-4%	18%	100%
1926	75%	15%	0%	-4%	14%	100%
1927	72%	15%	0%	-3%	16%	100%
1928	72%	15%	0%	-4%	17%	100%
1929	76%	16%	0%	-4%	13%	100%
1930	75%	14%	0%	-3%	14%	100%
1931	78%	12%	0%	-2%	12%	100%
1932	81%	17%	0%	-4%	6%	100%
1933	80%	13%	0%	-4%	11%	100%
1934	88%	10%	0%	-3%	5%	100%
1935	88%	9%	0%	-3%	5%	100%
1936	88%	10%	0%	-3%	5%	100%
1937	93%	10%	0%	-7%	4%	100%
1938	102%	6%	0%	-12%	4%	100%
1939	104%	6%	0%	-14%	4%	100%
Average	81%	11%	0%	-4%	11%	100%

Morganthau favored balanced budgets. Eccles, by contrast, believed in unbalanced budgets as a way to finance public projects along with redistributing excess funds to aid those still struggling to recover from effects of the depression as well increasing the power of the Federal Reserve in Washington at the expense of the regional banks. In these seemingly never ending disputes, Morganthau threatened to use the assets of the ESF to conduct open market operations independent of the Federal Reserve.<sup>33</sup>

Open market operations refer to the buying and selling of government securities by a central bank to either increase or decrease the money stock. These operations traditionally were the province of the Federal Reserve; as such the central bank feared a gradual takeover of its functions despite the fact the act establishing the bank clearly called for its independence. As discussed previously, a fundamental difference exists between treasuries and central banks, particularly in times of war. Given the uncertainty

**Table 4.3**

<i>Year</i>	<i>Department of the Army (%)</i>	<i>Department of the Navy (%)</i>	<i>Veterans compensation (%)</i>	<i>Interest on the public debt (%)</i>	<i>Other (%)</i>	<i>Total outlays (%)</i>
1919	49%	11%	1%	3%	36%	100%
1920	26%	12%	3%	16%	44%	100%
1921	22%	13%	5%	20%	40%	100%
1922	14%	14%	8%	30%	34%	100%
1923	13%	11%	8%	34%	35%	100%
1924	12%	11%	8%	32%	36%	100%
1925	13%	12%	7%	30%	38%	100%
1926	12%	11%	7%	28%	41%	100%
1927	13%	11%	8%	28%	40%	100%
1928	14%	11%	8%	26%	41%	100%
1929	14%	12%	7%	22%	46%	100%
1930	14%	11%	7%	20%	48%	100%
1931	14%	10%	7%	17%	53%	100%
1932	10%	8%	5%	13%	64%	100%
1933	11%	8%	5%	15%	62%	100%
1934	6%	4%	5%	11%	73%	100%
1935	8%	7%	6%	13%	67%	100%
1936	7%	6%	5%	9%	73%	100%
1937	8%	7%	5%	11%	68%	100%
1938	10%	9%	6%	14%	62%	100%
1939	8%	8%	5%	11%	69%	100%
Average	14%	10%	6%	19%	51%	100%

associated with armed conflicts, investors naturally require a higher rate of return to compensate them for this uncertainty. Treasuries therefore look to keep interest rates as low as possible. Central banks, by contrast, are in the business of using interest rates to manage the money supply and therefore inflation. As wars heat up, more scarce resources are required, thus inflating prices. Central banks therefore use the raising or lowering of interest rates, therefore, to ratchet back the rate of inflation and prevent the economy from overheating or stalling respectively. As Allan Meltzer explains

“In the late 1930s, the Fed urged the Treasury to increase the supply of short term debt – the Treasury refused. With the short term rate fixed, the Treasury could now reduce interest costs by issuing a relatively large volume of short term debt. At prevailing rates and policies, the market wanted more short term debt. By fixing the structure of interest rates, the Federal Reserve

**Table 4.4**

<i>Year</i>	<i>Total receipts (\$)</i>	<i>Total expenditures (\$)</i>	<i>Surplus/Deficit (\$)</i>
1919	\$5,130,042	\$18,492,665	(\$13,362,623)
1920	\$6,648,898	\$6,357,677	\$291,221
1921	\$5,570,790	\$5,061,785	\$509,005
1922	\$4,025,901	\$3,289,404	\$736,497
1923	\$3,852,795	\$3,140,287	\$712,508
1924	\$3,871,214	\$2,907,847	\$963,367
1925	\$3,640,805	\$2,923,762	\$717,043
1926	\$3,795,108	\$2,929,964	\$865,144
1927	\$4,012,794	\$2,857,429	\$1,155,365
1928	\$3,900,329	\$2,961,245	\$939,084
1929	\$3,861,589	\$3,127,199	\$734,390
1930	\$4,057,884	\$3,320,211	\$737,673
1931	\$3,115,557	\$3,577,434	(\$461,877)
1932	\$1,923,892	\$4,659,182	(\$2,735,290)
1933	\$1,996,844	\$4,598,496	(\$2,601,652)
1934	\$3,014,970	\$6,644,602	(\$3,629,632)
1935	\$3,705,956	\$6,497,008	(\$2,791,052)
1936	\$3,997,059	\$8,421,608	(\$4,424,549)
1937	\$4,955,613	\$7,733,033	(\$2,777,420)
1938	\$5,588,012	\$6,764,628	(\$1,176,616)
1939	\$4,979,066	\$8,841,224	(\$3,862,158)
Total	\$85,645,118	\$115,106,690	(\$29,461,572)
Average	\$7,912,390	\$10,081,939	(\$2,169,549)

sacrificed its ability to change the composition of the debt held by the public. Market demand dictated the amount and composition of its purchases and sales.”

As a result, this partial usurpation of Federal Reserve powers by the Treasury created a two-fold problem. Banks lent short-term money to their customers at rates below the rates on longer-term debt, as these debts matured, bond prices rose in price. The holders of these securities then sold them into the market while taking capital gains on the transactions. They would then purchase higher interest longer-term debt. Although this practice was abhorrent to the Treasury, the department refused to consider any change in interest rates during the war.<sup>34</sup>

On August 23, 1935, Congress passed the Banking Act of 1935. Among its most important points, the legislation called for the permanent establishment of the Federal Deposit Insurance Corporation (FDIC),

creating a permanent funding stream for reimbursing depositors in the event of a bank failure. In a victory for the central bank, the legislation also reorganized the Federal Reserve board. The open market committee, first established in 1923, would now consist of seven board members and others chosen by the bank's directors; previously, the twelve board reserve bank governors served as board members. In short, the regional banks now lost control of their own individual portfolios, with which they bought and sold securities in the marketplace. Now those activities would be centralized, shifting both power and authority to the board in Washington. In addition, the secretary of the treasury and comptroller of the currency were now required to resign from the board; while it would be nearly another twenty years before the Federal Reserve achieved complete independence from the Treasury, this was the first and most important step on that path.<sup>35</sup>

On the international front, in September, 1936, Britain, France, and the United States came to the so called Tripartite Agreement. Both Britain and the United States had left the gold standard in 1931 and 1933 respectively at the height of the depression in an effort to jump start their economies. Both the pound and dollar devalued over time relative to nations such as France, who had remained on the gold standard. In doing so, import prices rose while those of exports declined, angering those who still adhered to fixed interest rates. As part of the informal agreement, all the participating nations agreed to refrain from competitive devaluations of their currency, thus stabilizing exchange rates. However, the world remained mired in an economic slump right up to the beginning of the war.<sup>36</sup>

By the first week in September 1938, events moved forward on both the political and monetary fronts. On September 8, 1938, the Munich Agreement was signed by Britain, France, Germany and Italy, allowing the Nazis to annex certain portions of German speaking Czechoslovakia.<sup>37</sup> About that same time, a new dispute broke out between the Treasury and Federal Reserve. The Federal Reserve wanted a higher interest rate so it would not have to extend portfolio maturities. In addition, the hope was an increased supply of bills, according to the basic law of economics, would depress prices, raising the yield, and making the bills more attractive to investors. The Treasury, in its role of trying to finance any conflict as cheaply as possible, naturally was opposed. The Treasury would win this battle as it did most until the middle of the Korean War.<sup>38</sup>



*Pre-War Debt Policy*

Meanwhile, on the debt policy front, the United States had paid down a significant amount of the debt associated with World War One. However, in light of the funding devoted to Franklin Delano Roosevelt (FDR)'s New Deal social programs, federal government debt began increasing again to levels even higher than those during the war, sparking a political showdown with both Democrats and Republicans in Congress by the eve of World War Two (Table 4.5).<sup>39</sup>

*Pre-War Mobilization Policy*

With a very small interwar standing force, there was little need for weapons related research and development since the United States maintained an inventory of surplus weapons, ammunition, and other equipment left over

**Table 4.5**

<i>Year</i>	<i>Interest on the public debt (\$)</i>	<i>Total debt (\$)</i>	<i>Interest as a % of total debt</i>
1919	\$619,216	\$27,390,970	2.3%
1920	\$1,020,252	\$25,352,156	4.0%
1921	\$999,145	\$23,977,450	4.2%
1922	\$991,001	\$22,963,381	4.3%
1923	\$1,055,924	\$22,349,707	4.7%
1924	\$940,603	\$21,250,812	4.4%
1925	\$881,807	\$20,516,193	4.3%
1926	\$831,938	\$19,643,216	4.2%
1927	\$787,020	\$18,511,906	4.3%
1928	\$781,764	\$17,604,293	4.4%
1929	\$678,330	\$16,931,088	4.0%
1930	\$659,348	\$16,185,309	4.1%
1931	\$611,560	\$16,801,281	3.6%
1932	\$599,277	\$19,487,002	3.1%
1933	\$689,355	\$22,538,672	3.1%
1934	\$756,617	\$27,053,141	2.8%
1935	\$820,926	\$28,700,892	2.9%
1936	\$749,357	\$33,779,542	2.2%
1937	\$866,334	\$36,424,612	2.4%
1938	\$926,231	\$37,164,740	2.5%
1939	\$940,540	\$40,439,522	2.3%
Average	\$819,359	\$24,526,947	3.5%

from World War One. By the 1930s, however, the situation had changed. Mindful of the rise of fascism in Germany, Italy, and Japan, the United States began devoting more resources toward the development and acquisition of military equipment, including early radar systems, anti-aircraft fire and control, air navigation, and anti-armor systems. However, inter-service rivalry continued to dog these efforts. Competition for limited post-war R&D funding pitted the fledgling AAF against the Navy and its wishes to increase the size of its dreadnought fleet.<sup>40</sup>

In 1921, Brigadier General Billy Mitchell, the former commander of all U.S. air units in World War One and a disciple of airpower, demonstrated the feasibility of using land-based airpower by sinking a captured German battleship, the *Ostfriesland*, off the mouth of the Chesapeake Bay, much to the chagrin of the Navy. Mitchell, much in the manner of Douhet, would later write an influential book detailing his thoughts as to how an independent air force might be raised and utilized in a wartime situation.<sup>41</sup> The Navy had other issues to deal with as well. In an effort to achieve some measure of disarmament following World War One, navies around the world had been subject to new construction restrictions. The Washington Naval Conference of 1922 was emblematic of these efforts. Three agreements limiting the size of capital ships and easing political tensions in the Far East (the Five, Four, and Nine Power treaties), were signed by the world's major naval powers.<sup>42</sup>

The National Defense Act of 1920, in addition to reorganizing the Army, significantly impacted mobilization policy as well. The act essentially divided the War Department in two. The Army chief of staff was directed to plan and command the forces in the field. The Office of the Assistant Secretary of War (OASW) was given responsibility for the supply bureaus, the legislation directed the bureaus to report to both. However, the legislation was riddled with inconsistencies. For example, the OASW was not specifically under the supervision of the secretary; in carrying out his operational and technical duties, he conceivably could have more authority than the secretary. A second flaw in the act was the failure to delineate specific supply responsibilities within the context of having the bureaus report to both the chief of staff and the OASW. In a situation that would be repeated time and time again throughout the war, the bureaus, all headed by major generals, inevitably looked to the chief of staff for direction. In other words, there was a continuing struggle between the military and civilian authorities over the control of the mobilization process.<sup>43</sup>

In 1924, the Army Industrial College (AIC) was founded, largely to offset the influence of the Army War College on mobilization planning; by the beginning of the war, most of the senior OASW and bureau chiefs were graduates of the AIC. The Planning Branch of the War Department, the supply arms and service, and the AIC constituted the guts of the pre-war mobilization planning structure. However, while generally a success “its principal shortcoming was its failure to train enough supply personnel, not to mention line and staff officers, to make the army fully aware that the industrial revolution had permanently reshaped the military mission.”<sup>44</sup>

Other steps were taken to facilitate the mobilization process. On June 27, 1922, a joint Army Navy Munitions Board (ANMB) was established. While it provided some value add in such areas as regulating foreign purchasing, assigning mobilization priorities, and assisting both services with meeting their procurement needs, it was largely ineffective for two reasons. First, the War Department had been given statutory responsibility for wartime economic mobilization planning, leaving the Navy largely out of the process, although the OASW did attempt to involve the naval establishment under the auspices of the ANMB. Secondly, the Navy adopted a more parochial attitude toward planning in general, preferring to concentrate on specific strategies largely oriented toward what it believed to be its most likely theater of operations in the Pacific while the War Department opted to develop a more generalized set of plans designed to deal with as many contingencies as possible.<sup>45</sup> The 1920s and 1930s also saw the initiation of a series of industrial mobilization plans, beginning in 1922 (Table 4.6, 4.7).<sup>46,47</sup>

Following World War One, Americans remained suspicious of overseas adventures; this reflected in their attitudes toward rearmament. Between 1934 and 1936, Senator Louis Nye (R-ND) initiated a series of hearings on Capitol Hill, focusing on four areas: government shipbuilding contracts, examining the wartime profits of major banks (primarily J.P. Morgan) and munitions firms, and perhaps most importantly of all, the influence of these firms in convincing the Wilson administration to enter the war in the first place. His committee came to the conclusion that these financial and industrial trusts, as the committee referred to them, had exercised undue influence on the administration in the pursuit of greater profits. However “Committee members found little hard evidence of an active conspiracy among arms makers, yet the panel’s reports did little to weaken the popular prejudice against “greedy munitions interests. The investigation came

**Table 4.6**

<i>Year</i>	<i>Major provisions</i>
1922	OASW subdivisions assigned individual areas of responsibilities such as priority planning Also contained a legislative section allowing for the establishment of super agencies such as the WIB
1924	Set forth principles to guide economic mobilization and listing agencies that might be created Also the legislative annex included drafts of bills and executive proclamations for creating mobilization bodies
1928	Established a clearer distinction between procurement and economic mobilization planning All references to superagencies were deleted and the legislative annex excluded Proposed active roles for the War Department in wartime labor, transportation, and power policy Also introduced the concept of war service committees reminiscent of WIB operations during World War One Included proposals for the OASW to act as a transitional mobilization agency until the necessary civilian agencies could be created
1930	Called for three coordinating agencies Administration of National Resources—would perform duties similar to the WIB Administration of Manpower and Labor—would control the flow of manpower to the military and civilian economy Department of Munitions—would take over the procurement functions of the War and Navy Departments After intense opposition, the plan is reformulated The Department of Munitions and Manpower Administration were scrapped New plan focused on a director of War Industry—similar to the WIB except it would be divided in two Coordinator of War Industry—structured along commodity section-war service committees, would mobilize industry Coordinator of Requirements—would bring together the armed forces and other claimant agencies Also included a proposal for keeping the nation prepared for hostilities In peacetime, OASW subdivisions, personnel, and files would match those of the proposed war mobilization structure They would serve as a mobilizing nucleus until civilian agencies were up and running

to an abrupt end early in 1936. The Senate cut off committee funding after Chairman Nye blundered into an attack on the late Democratic President Woodrow Wilson. Nye suggested that Wilson had withheld essential information from Congress as it considered a declaration of war. Democratic leaders, including Appropriations Committee Chairman Carter Glass of

**Table 4.7**

<i>Year</i>	<i>Major provisions</i>
1933	<p>Made three changes from the 1930 plan</p> <p>Structure of the principal mobilization agency, the War Industries Administration (WIA)</p> <p>All functions were to be placed under the director</p> <p>Would operate through various divisions based on a commodity section-war service committee system</p> <p>Role of the Army-Navy Munitions Board (ANMB)</p> <p>It would coordinate the activities of the two services in procurement and economic mobilization planning</p> <p>Board was organized to parallel the structure of the OASW and the WIA</p> <p>Until a WIA could be set up, the ANMB would execute all mobilization functions</p> <p>Important modifications to the legislative annex</p> <p>Recast to grant the president broad, undefined powers over the nation's material and human resources</p>
1936	<p>The ANMB was more systematically designated as the nucleus and transitional economic mobilization agency</p> <p>The new principal economic mobilization agency was named the War Resources Administration (WRA)</p> <p>The agency could be established by the president's implied powers without statutory authority</p> <p>The OASW gave the WRA implicit authority to regulate and coordinate the other superagencies</p> <p>The most sweeping change occurred in the legislative appendix</p> <p>HR 5529—would have established rigorous taxation measures to curb wartime profiteering and to finance war costs</p>
1939	<p>Three fundamental changes from 1936</p> <p>The WRA was given the explicit authority to coordinate all other superagencies</p> <p>Whenever possible, existing governmental agencies would be used for mobilization</p> <p>In practice, mobilization would be carried out mostly by new and temporary bodies</p> <p>All eight appendixes (now called annexes) were excluded from the published version of the IMP</p> <p>The annexes basically altered the rigid M-Day concept (the day war was declared)</p> <p>Mobilization could take place under three scenarios</p> <p>Preparing the United States as a neutral for an imminent major war</p> <p>Initiating overt or covert mobilization for an emergency</p> <p>Instituting full scale mobilization for a declared war</p>

Virginia, unleashed a furious response against Nye for “dirt daubing the sepulcher of Woodrow Wilson.” Standing before cheering colleagues in a packed Senate Chamber, Glass slammed his fist onto his desk until blood dripped from his knuckles. Although the Nye Committee failed to achieve its goal of nationalizing the arms industry, it inspired three congressional neutrality acts in the mid-1930s that signaled profound American opposition to overseas involvement.<sup>48</sup>

On January 28, 1938, sensing the inevitability of American involvement in the war, Roosevelt asked Congress for additional appropriations for the military:

Specifically and solely because of the piling up of additional land and sea armaments in other countries, in such manner as to involve a threat to world peace and security, I make the following recommendations to the Congress:

(1) That there be authorized for the Army of the United States additions to anti-aircraft materiel in the sum of \$8,800,000 and that of this sum \$6,800,000 be appropriated for the fiscal year 1939.

(2) That there be authorized and appropriated for the better establishment of an Enlisted Reserve for the Army the sum of \$450,000.

(3) That there be authorized the expenditure of \$6,080,000 for the manufacture of gauges, dies and other aids to manufacture of Army materiel, the sum of \$5,000,000 thereof to be expended during the fiscal year 1939.

(4) That the sum of \$2,000,000 be authorized and appropriated toward the making up of deficiencies in ammunition for the Army.

(5) That the existing authorized building program for increases and replacements in the Navy be increased by twenty per cent.

(6) That this Congress authorize and appropriate for the laying down of two additional battleships and two additional cruisers during the calendar year 1938. This will call for the expenditure of a very small amount of Government funds during the fiscal year 1939.

(7) That the Congress authorize and appropriate a sum not to exceed \$15,000,000 for the construction of a number of new types of small vessels, such construction to be regarded as experimental in the light of new developments among Navies; and to include the preparation of plans for other types of ships in event that it may be necessary to construct such ships in the future.<sup>49</sup>

Roosevelt followed this request up on January 12, 1939, requesting Congress appropriate \$300 million to purchase 3,000 new aircraft.<sup>50</sup> A few months later, on April 3, 1939, Congress passed the 1939 Reorganization

Act. Under its provisions, an Executive Office of the President was created. It consisted of existing staff, the Bureau of the Budget, and a National Resources Planning Board.<sup>51</sup> Given that the enabling legislation establishing the National Defense Advisory Commission (NDAC) was still in effect (the National Defense Act of June 3, 1916), Roosevelt used this to re-establish the NDAC in May 1939. However, it suffered from many of the same defects its predecessor had in World War One. For example, it was still an advisory body only; it had no power to compel the military and civilian agencies in any way, shape or form when it came to the implementation of mobilization policy.<sup>52</sup> Moreover, Roosevelt decided not to activate the Council on National Defense (CND); the CND had, given its membership of cabinet officers, exercised considerable influence on mobilization policy in the previous conflict. Despite these weaknesses, the NDAC immediately set up a series of committees to explore specific areas related to mobilization such as contract policy, expanding the industrial base to include small businesses, as well as carrying out functional tasks such as the establishment of emergency production facilities; it also established a number of support divisions as well.

In July, 1939, tasked by the president to oversee foreign munitions purchases, the ANMB set up a Clearance Committee screening these transactions. It acted to block sales or substitute other products when the ANMB determined such activities to adversely impact the national defense. If these purchases infringed on U.S. requirements, and additional or expanded manufacturing capacity was required, particularly when it came to aircraft and tanks, the ANMB usually recommended the foreign purchaser finance this expansion.<sup>53</sup>

There were four potential solutions to this issue. First, additional capacity could be added to government owned facilities such as arsenals. A second option was for industry to ramp up production on its own. However, by no means were all potential suppliers on board with increasing capacity, especially if this was to be at the manufacturer's expense, since no one knew what sort of demand for these facilities would exist once the conflict ended. If the government was willing to compensate the private sector for this expense, then industry could be counted on to increase production. Third, more subcontracting could be outsourced to small business, a key goal of the Roosevelt administration. Finally, the government could simply force the conversion of certain sectors, such as automobiles, to war production. In the end, Roosevelt's call for 3,000 aircraft and the potential of large sales to the allies convinced industry to act on its own and invest company funds in this infrastructure.<sup>54</sup>

On August 9, 1939, the War Resources Board (WRB) was established to advise the administration in reviewing and completing the Industrial Mobilization Plan (IMB) prepared by the ANMB, specifically for use only in the event of a major war. However, it completed its mission within a fairly short period of time and was disestablished by Roosevelt on November 24, 1939, largely under pressure from his own New Deal supporters who saw the WRB as an effort by large corporations and the military to seize control of both mobilization and a wartime economy.<sup>55</sup>

### CHRONOLOGY OF POLITICAL, STRATEGIC/OPERATIONAL, AND RESOURCE MANAGEMENT EVENTS<sup>56</sup>

#### 1939

There had been a number of interwar conferences designed to maintain international peace and promote disarmament. Between June 20 and August 4, 1927, the United States, Great Britain, and Japan, building on the work done at the Washington Naval Conference of 1922, which limited the size and number of battleships, met in Geneva to try and establish formal ratios regarding the size and number of cruisers, destroyers, and submarines, but the meeting ended without an agreement. The same three countries, along with France and Italy met at the London Naval Conference between January 22 and April 22, 1930. This time, the end result was more satisfactory with all sides agreeing to limit submarine tonnage and armament. A few years later, a world disarmament conference was held in Geneva.

However, by this time, Japan had invaded China and the specter of rising German nationalism appeared on the horizon, as evidenced by the Nazi occupation of large tracts of German speaking territory in the Sudetenland and Czechoslovakia as well as the Anschluss or union with Austria.<sup>57</sup> Coupled with the economic downturn associated with the Great Depression, it appeared the world might very well be headed for another cataclysmic conflict, especially after Japan and Germany denounced the Washington Naval Conference agreement and the Versailles Treaty in 1934 and 1935 respectively (Fig. 4.1).<sup>58</sup>



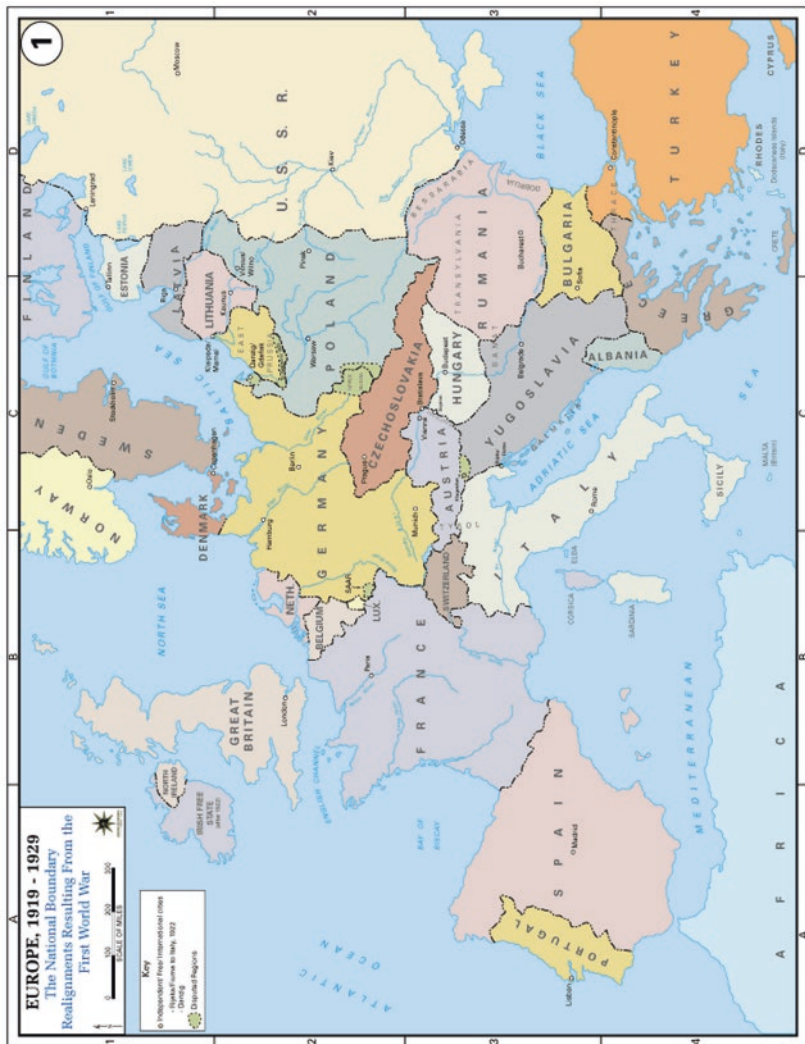


Fig. 4.1

It was not long in coming. On September 1, 1939, utilizing their new blitzkrieg doctrine, German troops rolled into Poland from the west. On September 17, 1939, they were joined by Soviet forces invading from the east. In a matter of days, Poland ceased to exist as an independent country.<sup>59</sup> Still, while Britain and France declared war on Germany, politicians and senior military officers chose to ignore the nature of the threat; in contrast to the quick mobilization of World War One, the French and British mobilized very slowly, counting on the massive Maginot Line to deter the Germans. Meanwhile, both Belgium and Holland incredibly maintained strict policies of neutrality, despite the German invasion of Belgium in the earlier conflict; in doing so, they were prevented engaging in cooperative planning with the British and French.<sup>60</sup> In the meantime, both the Germans and Russians continued their aggression against their neighbors. On April 9, 1940, Germany invaded Norway. While the Norwegians fought well, they were no match for the Germans, despite the intervention of a combined Franco-British landing force a few days later. By June, the allies had withdrawn, in large part due to the German invasion of France. In November 1939, Russia invaded neighboring Finland. The Finns, outnumbered three to one, nonetheless held off the Russian forces for four months before succumbing.<sup>61</sup>

While the senior politicians and military officers in Britain, France and the United States were keeping a close eye on the Polish campaign, the Federal Reserve likewise observed events with interest. Upon news of the initial German invasion, the bank began purchasing bonds in the open market. There were several rationales given for this action. First, the Federal Reserve had promised Roosevelt and Morgenthau an expansive monetary policy by keeping interest rates low. Another objective was to stabilize prices in the bond market, which had begun falling once war had started.<sup>62</sup>

Meanwhile on the resource management front, on November 4, 1939, Roosevelt convinced Congress to lift the current arms embargo by revoking “my proclamations nos. 2349, 2354 and 2360 issued on September 5th, 8th, and 10th, 1939, respectively, in regard to the export of arms, ammunition, and implements of war to France; Germany, Poland, the United Kingdom, India, Australia, and New Zealand, the Union of South Africa, and Canada.” These countries would be allowed to purchase arms on a “cash and carry” basis, that is, these purchases would be paid in full before shipped off to Europe.<sup>63</sup> In the meantime, in what became known as the Battle of the Atlantic, Germany launched a four-phased campaign of

unrestricted submarine warfare against Britain (and eventually the United States once war had been declared):

- Phase I, September 1939—U-Boats operated within the immediate vicinity of the British Isles
- Phase II—June 1940–April 1941—operations in the eastern Atlantic and the Cape Route (West and South Africa)
- Phase III—April 1941–December 1941—central and western Atlantic
- Phase IV—December 1941—Atlantic coast of the United States<sup>64</sup>

Back on the financial front, in his Annual Report of the Secretary of the Treasury, Morgenthau covered a number of different subjects ranging from an excess profits tax, particularly as it related to aircraft production to organizational reforms within the department such as the Comptroller of the Currency now reporting to the Undersecretary of the Treasury (it had previously reported to the Office of the General Counsel). However, no significant reference was made to specific wartime financial preparations, not surprising given FDR's hope to keeping America neutral during the war.<sup>65</sup> In the meantime, the Federal Reserve Board of Governors, chaired by Marriner Eccles, issued its Annual Report of the Federal Reserve Board for 1939 on December 31, 1939, noting two important items including the promise relating an "easy money" policy among other events during the year

"During the year recurring war crises in Europe resulted in an increased flow of gold to this country, and at the end of the year our gold stock reached the unprecedented total of \$17,650,000,000, representing two thirds of the world's monetary gold. This inflow of gold resulted in a corresponding growth of member bank reserves and deposits, and this, together with some expansion of bank loans and investments, carried bank deposits to new high levels. Required reserves increased correspondingly but this increase fell far short of absorbing the additions to bank reserves, so that excess reserves rose further to a volume in excess of five billion dollars."<sup>66</sup>

In addition, the Department of the Treasury established the Office of Funds Control (later to be superseded by the Office of Foreign Assets Control, following the German invasion of Norway in April 1940). The goal of the act was twofold—"to prevent the Nazis from utilizing the

foreign exchange reserves of occupied territory and the forced repatriation of funds belonging to nationals of those countries.”<sup>67</sup>

### 1940

Roosevelt presented his State of the Union address to the Congress and the country on January 3, 1940. He reaffirmed his commitment to fiscal responsibility by noting that

“As will appear in the annual budget tomorrow, the only important increase in any part of the budget is the estimate for national defense. Practically all other important items show a reduction. But you know, you can’t eat your cake and have it too. Therefore, in the hope that we can continue in these days of increasing economic prosperity to reduce the Federal deficit, I am asking the Congress to levy sufficient additional taxes to meet the emergency spending for national defense. Behind the Army and Navy, of course, lies our ultimate line of defense— “the general welfare” of our people.”<sup>68</sup>

Meanwhile, in June 1940, Hitler turned his attention to the west and France. By early May 1940, three German army groups consisting of two and a half million men were opposed by three allied army groups, including the BEF, with an approximate strength of two million troops. The Belgians and Dutch fielded 600,000 and 400,000 less well-trained and -equipped personnel respectively. The Belgian–Dutch situation was complicated by their neutral stance; there had been no coordination with either British or French military planners prior to the war. This deficiency would come back to haunt both the Belgians and Dutch (Fig. 4.2).<sup>69,70</sup>

The German military strategy was developed with the Schlieffen Plan in mind, at least in terms of deception. The initial German movement called for an intense artillery bombardment, followed by a massive attack on Holland by one army group (Army Group B) with the intent of luring the allied armies in the north to defend both Holland and Belgium. In the meantime, a second army group (Army Group A) would launch an armored offensive through the supposedly impenetrable Ardennes Forest and into France itself. Rather than reach for Paris immediately, German plans called for Army Group A to then wheel westward to Calais so as to pin the allied forces already advancing into Belgium against Army Group

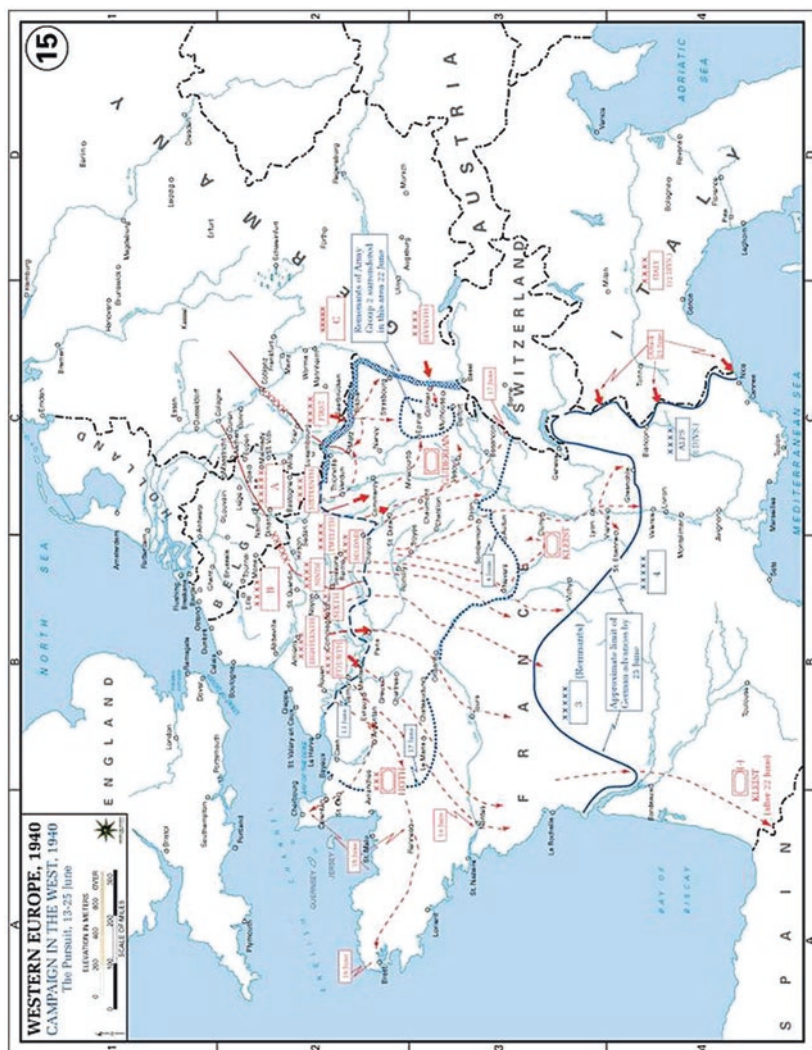


Fig. 4.2

B, a classic hammer and anvil approach. The goal was to then move southward against the French forces, now physically separated from their comrades in the north, and force them back on the Maginot Line, where the last army group (Army Group C) waited to destroy them in detail.<sup>71</sup>

The allies, by contrast, fell into the German trap, expecting a repeat of the Schlieffen Plan. As for the Belgian and Dutch, they could expect no help from the allies and were reduced to trying to flood their respective territories by opening river and canal dikes in a futile effort to slow down the German blitzkrieg. The Germans launched their assault on May 10, 1940 (the same day Winston Churchill became prime minister, replacing Neville Chamberlain); that same day Army Group A advanced through the Ardennes. Four days later, Holland fell, followed by Belgium on May 15, 1940.<sup>72</sup> The Germans continued to exploit the success of their blitzkrieg doctrine by establishing bridgeheads on most of the major French rivers over the next few days. However, on May 26, 1940, Hitler committed an unpardonable operational error by ordering Army Group A to halt its advance northward against the French and British forces in Belgium. He intended for the Luftwaffe to pound the allies into submission (perhaps to appease their commander, Hermann Goering) but had not counted on vigorous resistance from the Royal Air Force Fighter (RAF) Command (certainly not the last time the RAF would get the better of him). This halt allowed the British to construct a hasty perimeter defense around the Belgian port of Dunkirk. Despite renewed attacks by the German armored columns, between May 28 and June 4, 1940, over 300,000 British, French, and Belgian soldiers were evacuated to Britain by a motley fleet of fishing and other vessels, manned mostly by civilian volunteers. The following day, the Germans overwhelmed what remained of the French forces screening the evacuation.<sup>73</sup>

Despite having failed to prevent the evacuation of a substantial number of enemy troops, many of whom would return to France four years later, the Germans still had momentum on their side. While the French tried to regroup their shattered armies, the Germans continued their move westward. On June 5, 1940, they renewed their ground assault, supplemented by constant air to ground attacks of the Luftwaffe. By mid-June, the matter had been effectively decided in favor of Germany. The allied forces had been out thought both strategically and operationally; the Maginot Line, despite its impressive firepower purchased at immense cost, proved to be of little deterrent value against a force built on speed, mobility and firepower that sought to avoid enemy strongpoints. The Germans occupied

Paris on June 13, 1940, and accepted the French surrender on June 21, 1940, in the same rail car in which the armistice ending World War One, Germany's greatest humiliation in Hitler's eyes, was signed.<sup>74</sup>

Hitler, much in the manner of Napoleon one hundred and twenty years later, now reigned as the undisputed ruler of Europe. Had he contained his ambitions and settled for his hard fought gains, the war might have ended there. But he had further designs; the question was, what would he pursue first?: occupation of Great Britain or advancing east to claim the oil fields of his erstwhile ally, Josef Stalin. He decided to deal with Britain first by launching Operation Sea Lion, an amphibious assault on the British Isles. However, he was acting against the advice of his ground and naval commanders but with the enthusiastic support of Goering, perhaps looking to atone for his failure to halt or disrupt the evacuation at Dunkirk. Despite British control of the English Channel, Hitler envisioned a plan whereby the Luftwaffe would destroy first the RAF and then the Royal Navy before attempting a ground invasion.

While the German armies regrouped and the Navy attempted to secure an adequate number of landing craft, the Luftwaffe launched a four-phased air assault on Great Britain. Goering had at his disposal some 900 fighters and 1,300 medium bombers, opposed by the 650 aircraft of RAF Fighter Command. Between August 8 and August 18, 1940, and despite their overwhelming numerical disadvantage, the British, through the use of a modern technology called radar, were able to concentrate their limited forces at the point of attack and retain command of the air. The second phase of the offensive began on August 24, 1940, and continued until September 5, 1940. During this period of the Battle of Britain, the Germans changed up their objectives, shifting their attention away from the coast inland where a substantial percentage of Fighter Command's assets were based. They were very nearly successful in destroying Fighter Command, inflicting substantial damage on bases and communication centers.

The British then launched a counterattack of their own beginning on August 24, 1940. Utilizing heavier bombers, the RAF, in retaliation for an attack on London, returned the favor by staging a night assault on Berlin. While the British attacks caused little physical damage due to the limited number of aircraft involved, the assault enraged Hitler and Goering. As the second phase of the German air offensive ground to a halt, Hitler ordered a new tactic: bombing London in daylight in an attempt to terrorize the British into surrender. Beginning on September 7, 1940, and

continuing unabated for three weeks, Londoners were subjected to an intense bombing assault against largely civilian targets. But this tactic backfired on the Germans as well: By limiting their attacks to London, they made themselves easy targets for what remained of Fighter Command, supplemented by its superior command and control system. The British in retaliation launched another counterpunch, attacking and destroying nearly 200 barges located in French, Belgian, and Dutch ports along the coast intended to serve as amphibious assault ships for the German ground forces.

The loss of one tenth of these assets convinced Hitler to suspend Operation Sea Lion, although the Germans did fly another phase of their air offensive between October 1 and October 30, 1940, causing little damage. However, in November 1940, the Germans attempted one last air assault on Britain, practically destroying the city of Coventry, and causing significant damage to London as well, in the process causing over 100,000 civilian casualties. Still Britain had survived the onslaught and now Hitler turned his attention to the east.<sup>75</sup> As for the Americans, with France out of the war and Britain under siege, several questions remained unanswered, most importantly, what and where should the United States look to defend? However, in subsequent conversations between Churchill and Roosevelt, it became obvious that military action would be taken against the Axis Powers outside of the Western Hemisphere, the question then being one of priorities—Europe or Asia first or in tandem?

In the meantime, the NDAC, under the direction of former General Motors President William Knudsen, commenced operations with its most important tasks relating to contract clearance; priority formulation, arranging to construct or expand facilities; and devising methods to finance new construction or expansion of existing facilities. Complicating these tasks was Roosevelt's announcement on May 16, 1940, calling for the production of 50,000 aircraft per year, 36,500 for the Army and 13,500 for the Navy and Marine Corps, while asserting that "private industry will continue to be the source of most of this materiel; and private industry will have to be speeded up to produce it at the rate and efficiency called for by the needs of the times."<sup>76</sup>

In early 1940, the Army and Navy established a Joint Air Advisory Committee (JAAC) to help the NDAC oversee production of these new aircraft. However, by 1941, given the need to supply aircraft to the allies, the Undersecretary of War, Henry L. Stimson established a new organization called the Army-Navy-British Purchasing Joint Committee (to



be renamed later as the Joint Aircraft Committee), This new committee consisted of representatives from both of the armed services, the British Purchasing Commission, and the Office of Production Management (OPM—discussed in more detail below). The committee “had the power to schedule the delivery of, and allocate the capacity for, aircraft and aircraft components in the official programs for customers, Army, Navy, and British, and other Foreign and Commercial.”

However, the JCS were reluctant to provide the NDAC (or any other non-military mobilization organization for that matter) with a detailed estimate of aircraft production requirements, largely because the services resented the involvement of civilians in what they perceived to be a purely military exercise. However, under pressure from Knudsen, backed by Roosevelt, the joint chiefs finally provided a set of projected figures. The Army would require 36,000 total aircraft by April 1, 1942, with 7,378 being fighter planes.<sup>77</sup> However, the administration also realized that research and development played an equally important in the defense industrial base as production. In June 1940, Roosevelt established the National Defense Research Committee (NDRC), consisting of five operating divisions.

While contractors were queuing up to participate in one of the largest American defense production programs in history, Roosevelt was keeping a careful eye on matters. Given his populist political philosophy and the allegations contained in the 1936 Pujo Report, on May 26, 1940, he made a plea to Congress to impose an excess profits tax to rein in what he perceived to be some of the excesses in World War One.<sup>78</sup> Munitions production also remained a key goal of the administration. In June 1940, the War Department adopted the “Munitions Program.” Despite strong domestic political opposition to abandoning neutrality, this program, funded to the tune of \$6 billion, was designed to meet initial needs of a one million man army by activating a large support infrastructure including procurement districts, arsenals, and depots. Later, its goals were revised upward to include “procuring aircraft and their components, parts, and support equipment, reserve stocks of supplies and equipment, and creating production facilities to support an army of four million combat personnel.”<sup>79</sup> As Germany was overrunning France at this time, Roosevelt and his advisors knew they needed to raise more funds so on May 25, 1940, the first War Revenue Act was passed by Congress. It called for decreasing personal tax exemptions by 20% and raising rates by 10%.<sup>80</sup>

In July 1940, the OASW once again reorganized. The existing Procurement Branch was further divided into two separate branches. The new Purchases and Contracts Branch established and oversaw the establishment of procurement policy as well as coordinating the activities of the Supply arms and services (SA&S) The Production Branch expedited the production of munitions upon the signing of a contract. However, the new structure immediately met with opposition, this time from the OASW Planning Branch, which resisted merging with operational organizations, in the hope that the 1939 Industrial Mobilization Plan (IMP), which the Planning Branch had played a key role in developing, would be implemented.<sup>81</sup>

The Navy also had its share of organizational issues. The new Secretary of the Navy, Frank Knox, a former newspaper reporter and Republican candidate for vice president in the 1936 election, had been tasked by Roosevelt, a former assistant secretary of the Navy himself, with updating the service's supply system. To assist him in this endeavor, he selected James Forrestal as his undersecretary. Forrestal, a former naval aviator in World War One, focused on two priorities: streamlining the contract system, which up until this time had been dispersed among various bureaus, and creating the Procurement Legal Division. He also oversaw the establishment of the Office of Procurement and Naval Material, analogous to the War Department's OASW. He was only able to accomplish this in the face of stiff resistance from Admiral Ernest King, the Chief of Naval Operations (CNO), who attempted to place the bureaus under his direct supervision, so as to eliminate any sense of civilian control over the fleet. However, it can be argued that, given the Navy supply officer corps had been allowed to atrophy during the interwar years as opposed to their Army counterparts who had been deeply involved in mobilization planning during this time frame, maintaining an experienced group of civilian experts was important to ramping up wartime resource management functions.<sup>82</sup> On July 2, 1940, Congress upped the economic warfare ante by passing the Export Control Act of 1940. The legislation was intended to serve two purposes—to conserve the supply of scarce commodities while at the same time denying these and other critical materials to Japan.<sup>83</sup>

Back on the politico-military front, one of the most important agreements in during the war was consummated: the September 2, 1940, Destroyers for Bases Agreement with Britain. Under the terms of this agreement, the United States agreed to transfer fifty obsolete destroy-

ers to Britain in exchange for a number of naval facilities located in the Caribbean.<sup>84</sup> Recognizing the need for additional manpower, Congress passed the Selective Service Act of 1940 draft on September 27, 1940, requiring all eligible males between the ages of twenty one and thirty six to register for a potential draft.<sup>85</sup> Meanwhile, on October 8, 1940, the Second Revenue Act of 1940 was passed by Congress. The major provisions in the act provided for an increase in the corporate income tax as well as the assessment of an excess income tax.<sup>86</sup>

As the year came to an end, Roosevelt was easily reelected to the presidency in November, 1940. Meanwhile, in his Annual Report of the Secretary of the Treasury dated January 6, 1941, Morgenthau noted

“At the beginning of this period (1933), the dominating influence on monetary affairs was the world-wide economic and financial collapse. In the industrial nations of the world, unemployment rose to an alltime high; and in the raw materials countries, exports and prices of staple commodities fell at an unprecedented rate. In many parts of the world domestic and international tensions mutually aggravated each other... In contrast to the economic pattern established in Europe, the United States defense program became a major factor in economic policy only toward the end of this period.”<sup>87</sup>

Morgenthau’s comments on the wartime monetary situation once again reinforced the dominant position of the Treasury over the Federal Reserve. As for Eccles, in his Annual Report of the Federal Reserve, he began by noting the overall economic situation and then commented on the role of the Federal Reserve was playing in national defense programs:

“The war situation and the national defense program were the dominating influences on business and financial developments in this country during 1940... After the outbreak of war in the autumn of 1939, there was a rapid expansion of production and a substantial advance in prices. These developments were partly of a speculative character, in anticipation of large war demands. During the first four months of 1940, there was some recession in activity but as orders from belligerents increased and the national defense program got under way, industrial activity rose sharply. This rise continued to the end of the year, when industrial output as a whole was larger than at any previous time and many industries were operating close to existing capacity.”<sup>88,89</sup>

*1941*

Meanwhile, with his rear area now secured, Hitler now focused on Russia. Beginning in December 1940, the formal planning of Operation Barbarossa commenced. The Germans planned a multipronged invasion of the Soviet Union across a wide front; as for the Russians, the bulk of their three million strong forces were concentrated in the areas of Poland, Bessarabia, as well as the Baltic States. The targets of the German offensive were Kiev and the Ukrainian oil fields, Moscow and Leningrad. Employing three million men of his own, including 200,000 troops from Finland and Norway, Hitler, well aware of Napoleon's disaster in 1812, planned to finish the campaign within four months and before the onset of the Russian winter. After being delayed for a month due to mounting a campaign to secure Yugoslavia and Greece during April and May 1941, Barbarossa kicked off June 22, 1941, with a night time attack along a 2,000 mile front stretching from Murmansk in the north to the Ukraine in the south. The Germans achieved complete tactical surprise even though the Russian high command had anticipated an invasion. By mid-July 1941, the Germans had captured 290,000 prisoners and 2,500 tanks. Later that month, they bagged another 100,000 Russians. (Fig. 4.3, Fig. 4.4)<sup>90</sup>

However, once again, Hitler intervened and disrupted the offensive. He detached two panzer groups and the First Army away from Army Group Center and redeployed them to the north and south in order to speed up the concurrent offensives in those areas. Initially successful, Kiev fell on September 19, 1941, with the surrender of 665,000 Russian troops. However, by now, the Germans faced their fiercest opponent: the oncoming Russian winter. Before the snows came however, the roads were turned into quagmires by heavy autumn rains. Moreover, while the Germans were at the end of their rope by the constant campaigning, the Russians had made good on their earlier personnel losses while at the same time replacing incompetent commanders with more able leadership (it should not be forgotten that Stalin conducted a large pre-war purge of the higher ranks in the army, thus eliminating many capable officers). In front of Moscow in December 1941, Russian resistance stiffened, and with the onset of winter, they halted the German offensive while simultaneously launching a counteroffensive of their own). Meanwhile, allied and axis forces continued to battle for control of North Africa.



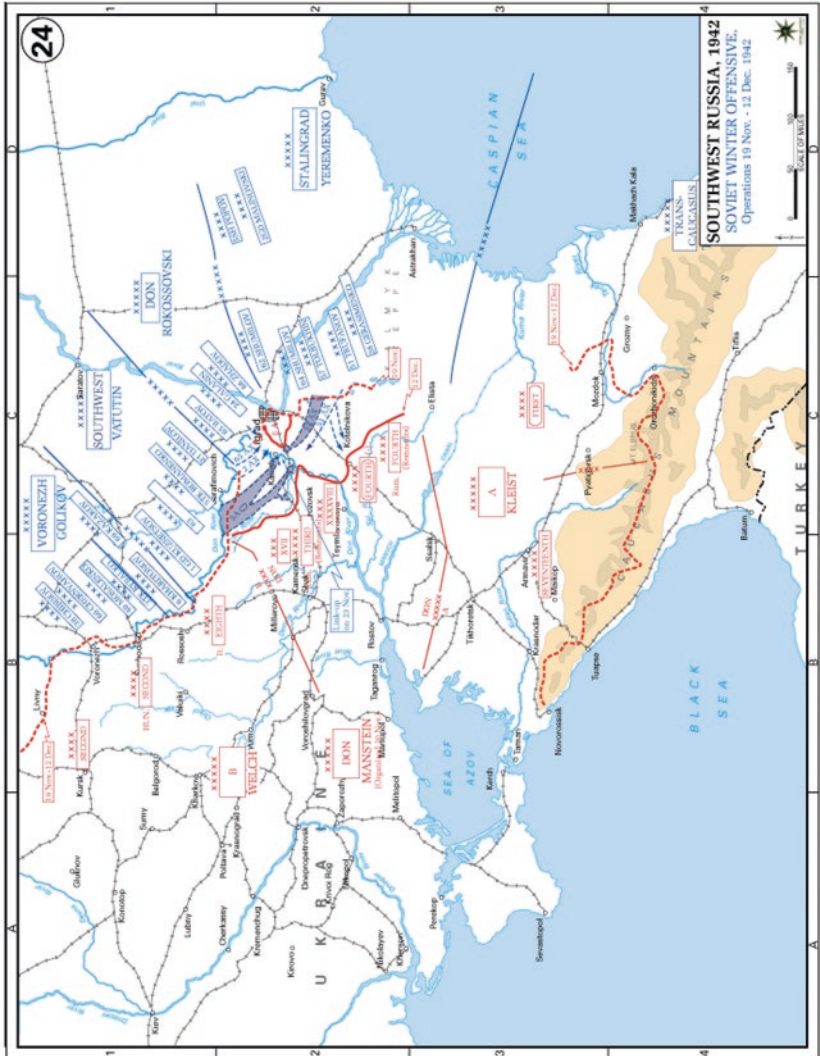


Fig. 4.4

Early January 1941, following the attack on Pearl Harbor, there was a flurry of activity on the resource management front in Washington. On January 3, 1941, Roosevelt gave his annual budget address to Congress, noting that the proposed 1942 budget would total \$17.5 billion, offset to some degree by a substantial increase in tax receipts.<sup>91</sup> On January 7, 1941, as a result of an executive order signed by Roosevelt, the Office of Production Management (OPM) was established under the direction of William S. Knudsen. Among its duties were:

“Formulate and execute in the public interest all measures needful and appropriate in order (1) to increase, accelerate, and regulate the production and supply of materials, articles and equipment and the provision of emergency plant facilities and services required for the national defense, and (2) to insure effective coordination of those activities of the several departments, corporations, and other agencies of the Government which are directly concerned therewith... Survey, analyze, and summarize for purposes of coordination the stated requirements of the War and Navy and other departments and agencies of the Government, and of foreign governments for materials, articles, and equipment needed for defense.”<sup>92</sup>

Meanwhile, in December 1940, Churchill had informed Roosevelt that the British no longer had the financial wherewithal to continue to pay for American war supplies. In response, on March 11, 1941, the United States took another step toward becoming Roosevelt’s arsenal of democracy when the Lend Lease Act was passed. In order to keep Britain in the war, the United States would not insist on being paid immediately

“Instead, the United States would “lend” the supplies to the British, deferring payment. When payment eventually did take place, the emphasis would not be on payment in dollars. The tensions and instability engendered by inter-allied war debts in the 1920s and 1930s had demonstrated that it was unreasonable to expect that virtually bankrupt European nations would be able to pay for every item they had purchased from the United States. Instead, payment would primarily take the form of a “consideration” granted by Britain to the United States. After many months of negotiation, the United States and Britain agreed, in Article VII of the Lend-Lease agreement they signed, that this consideration would primarily consist of joint action directed towards the creation of a liberalized international economic order in the postwar world.”<sup>93</sup>

Before Lend-Lease, the British purchased war supplies by selling \$2.5 billion in gold and American securities owned by British citizens. In essence, following passage of the Act, although Morgenthau insisted the British also divest all of their investments in American companies as well, U.S. government debt substituted for gold, in turn, greatly reducing the outflow of gold from Britain. The act was successful in its intent—by the end of the year, \$750 million in supplies had been shipped to Europe, primarily Britain and Russia (which signed its first protocol on October 31, 1941); by war's end, this sum totaled \$50 billion.<sup>94</sup>

The following month, on April 11, 1941, the Office of Price Administration and Civilian Supply (OPACS) was established along with the Office of Emergency Management (OEM). Essentially combining the roles of the price stabilization and consumer protection divisions of the NDAC, its focus was on controlling prices to avoid inflation while at the same time, protecting consumer interests in a time when military requirements were causing shortage of basic materials. The problem for OPACS was that it operated under the auspices of the OPM, which favored near total and immediate conversion of consumer industries such as the automobile sector, in order to increase munitions production. As might be expected, OPACS fought bitterly against this policy, arguing that any such curtailment be done gradually and in accordance with increased munitions production. Although it took time, OPACS wound up winning the battle.<sup>95</sup>

On July 9, 1941, Roosevelt bowed to the inevitable and ordered the secretaries of War and the Navy to prepare estimates of the resources required to meet the demands of Starks' Option D, an offensive against Germany and Italy while remaining on the defensive in the Pacific. This strategy needed to consider the following requirements:

- Providing enough support to allow America to project its military power in two separate theaters (the Atlantic and Pacific)
- Supporting two strategic bombing offensives in two different theaters
- Developing the infrastructure to support a massive naval buildup
- Developing the requisite force structure to support a significant expansion of the nation's ground and amphibious forces
- And finally, as had been the case in World War One, providing massive military, economic and financial assistance to America's allies, primarily Great Britain<sup>96</sup>



At the same time, Roosevelt continued to reorganize the mobilization effort. On July 30, 1941, he established the Economic Defense Board (EDB), consisting of the Vice President of the United States, who would serve as Chairman, the Secretary of State, the Secretary of the Treasury, the Secretary of War, the Attorney General, the Secretary of the Navy, the Secretary of Agriculture, and the Secretary of Commerce. This executive order defined economic defense as follows:

“The term “economic defense,” whenever used in this Order, means the conduct, in the interest of national defense, of international economic activities including those relating to exports, imports, the acquisition and disposition of materials and commodities from foreign countries including preclusive buying, transactions in foreign exchange and foreign-owned or foreign-controlled property, international investments and extensions of credit, shipping and transportation of goods among countries, the international aspects of patents, international communications pertaining to commerce, and other foreign economic matters.”<sup>97</sup>

Among its responsibilities were:

In furtherance of such policies and objectives as the President may from time to time determine the Board shall perform the following functions and duties:

“Make investigations and advise the President on the relationship of economic defense measures to postwar economic reconstruction and on the steps to be taken to protect the trade position of the United States and to expedite the establishment of sound, peacetime international economic relationships.”<sup>98</sup>

On August 28, 1941, Roosevelt followed up on this action by separating price controls from OPACS and moving civilian supply functions to the OPM. In turn, he created the Supply Priorities Allocation Board (SPAB), initially set up as a top-level policy making body to advise himself. Its major responsibility was to determine overall requirements related to all civilian and defense needs; in essence, the SPAB would.

“Serve as the coordinating center for the execution of the powers and activities of the several departments and agencies relating to priorities; in this connection, review, clear, and approve for execution all requests or proposals originating from other Federal agencies, private industry, or other sources

for Priority action with respect to the procurement, production, transmission, or transportation of materials, articles, power, fuel, and other commodities; issue or provide for the issuance of all priority orders, warrants, certificates, or ratings with respect to the supply, production, transmission, or transportation of materials, articles, power, fuel, and other commodities; and, with reference to specific priority authorities vested by law in established departments and agencies of the Government, certify to such departments and agencies, when the Office of Production Management deems such action necessary to national defense, that preferential treatment is essential for certain materials, commodities, facilities, or services.”

In doing so, as noted above, Roosevelt asked the SPAB to establish the requisite priority and allocation systems in order to support those requirements. However, as was the case with other mobilization agencies, it was forced to rely on the OPM to carry out its responsibilities, since Roosevelt did not provide it any underlying operating infrastructure. On October 1, 1941, OPM was reorganized to provide this infrastructure, bringing it closer to the latest IMP, although it would be reorganized yet again in December 1941.<sup>99</sup>

As the civilian mobilization agencies began ramping up (or down as the case might be depending on Roosevelt’s whims that day), military planners, particularly those of the AAF Air War Plans Division-1, were moving forward at a brisk pace. However, the first plan developed to meet Roosevelt’s requirements nearly exclusively called for the production of large bombers at the expense of fighters, reflects the AAF offensive strategy. However, the ambitious plan, which initially called for the procurement of nearly 60,000 aircraft, was scaled back in light of the need to fund other mobilization priorities. Obviously, the war was becoming progressively more expensive; to that end, Congress on September 20, 1941, passed the Revenue Act of 1941. There were a number of important changes in the law including lowering personal exemptions for married couples; increased surtaxes on all taxable income; increased corporation and normal excess profits taxes and imposition of a new corporate surtax; increased rates on excises already in effect and new excises on many commodities; while increasing estate and gift taxes.<sup>100</sup>

In the Asia-Pacific theater, conflict began well before hostilities in Europe. Beginning in 1931, Japan had been pursuing an aggressive expansionist policy in China. Matters came to a head on July 7, 1937, when Chinese and Japanese troops clashed at the Marco Polo Bridge near modern day Beijing; the Japanese leadership used the incident to launch a

full scale invasion of the Chinese mainland. Over the next two years, Japan gradually occupied more and more territory to the point of establishing a puppet government on March 30, 1940. By September 1940, Japan had also begun its occupation of French Indochina as well, resulting in warnings by the Roosevelt administration this policy was not acceptable. As a consequence, the Japanese government began planning a series of offensives to be conducted against the American and British fleets stationed at Pearl Harbor, Hawaii, the Philippines, British Malaya, and the Dutch East Indies respectively unless the Americans scaled back their demands.<sup>101</sup>

On July 26, 1941, the United States ratcheted up the pressure by freezing Japanese financial assets in the United States. Negotiations over this action continued until November 26, 1941, when Secretary of State Cordell Hull informed the Japanese any agreement unfreezing assets would require a Japanese withdrawal from China and Indochina, as well as formal recognition of the Chiang Kai-Shek government in China. These demands were unacceptable to the Japanese and as such, the decision was made to attack Pearl Harbor while simultaneously pursuing its other objectives.<sup>102</sup>

On December 7, 1941, Japanese naval forces under the command of Admiral Chuichi Nagumo, which had managed to approach Hawaii undetected, launched an early morning surprise air assault on the American fleet while at anchor. The subsequent destruction inflicted upon American air and naval power meant the United States was effectively neutralized militarily for the next year. The only bright spot on that morning for the United States was the absence of the three American aircraft carriers, the Enterprise, Lexington, and Saratoga, from Pearl Harbor. The Americans would rebuild their military capabilities around these three ships before moving west to engage the Japanese, who by now had occupied most of the western Pacific and Southeastern Asia. The Americans declared war against Japan the following day; four days later, both Germany and Italy declared war on the United States.<sup>103</sup>

While the United States was still reeling from the disaster at Pearl Harbor, the Japanese military moved forward with its operational plans. On December 8, 1941, Japan invaded the British colony of Malaya; two days later, the two major British naval assets based in the Pacific theater, the battleship HMS Prince of Wales and the battle cruiser HMS Repulse, who had sortied north from Singapore, were attacked and sunk south along the Malayan coast. Simultaneously, the Japanese also turned their attention to the Philippines, where some 130,000 American and Philippine troops under the command of General Douglas MacArthur awaited them.

The Japanese forces under the command of General Masaharu Homma planned to launch a large-scale attack from occupied Formosa before landing a 50,000 strong amphibious force on the central Philippine island of Luzon. On December 10, 1941, the Japanese attack commenced and by December 31, 1945, a rapid Japanese advance had forced the American and Philippine defenders to withdraw to the Bataan Peninsula (Fig. 4.5).<sup>104,105</sup>

Following the Japanese assault, the First War Powers Act was passed by Congress on December 17, 1941. The legislation gave the president complete authority to reorganize not only the executive branch but also other governmental agencies and the private sector. The EDB was also renamed the Board of Economic Warfare (BEW). Two days later, Congress extended conscription to men between the ages of twenty four and forty four.<sup>106</sup> Meanwhile, Eccles, in his Annual Report of the Federal Reserve Board dated December 31, 1941, noted

“Early in 1941 it became apparent that increased war production and employment would greatly expand civilian purchasing power without resulting in a corresponding growth in the supply of goods available for civilian purchase. This upward pressure on prices became stronger during the year, and it became clear that concerted action by the many agencies of Government concerned would be necessary to offset the inflationary effects... Although excess reserves held by banks were reduced during the year by the growth of currency in circulation, by the expansion of deposits, and by the Board’s action to increase required reserves, they were nevertheless sufficient at the end of the year to support a considerable further increase in bank credit.”<sup>107</sup>

Meanwhile, Morgenthau released his Annual Report of the Secretary of the Treasury on January 7, 1942. In it, he focused, among other subjects, on the importance of economic warfare, noting that

“Economic warfare, as well as military warfare, is now being waged on all sides of us. There is no certainty that even with peace these aggressive economic instruments will be abandoned by other countries. Nobody can say what kind of international economy will emerge from this war. But it would surely be unwise if we chose this time to let private speculators and foreign governments determine the exchange value of the dollar.”<sup>108</sup>

Between December 22, 1941, and January 14, 1942, Churchill and Roosevelt, accompanied by senior American and British military officials, met in Washington to discuss future strategy and combat operations at

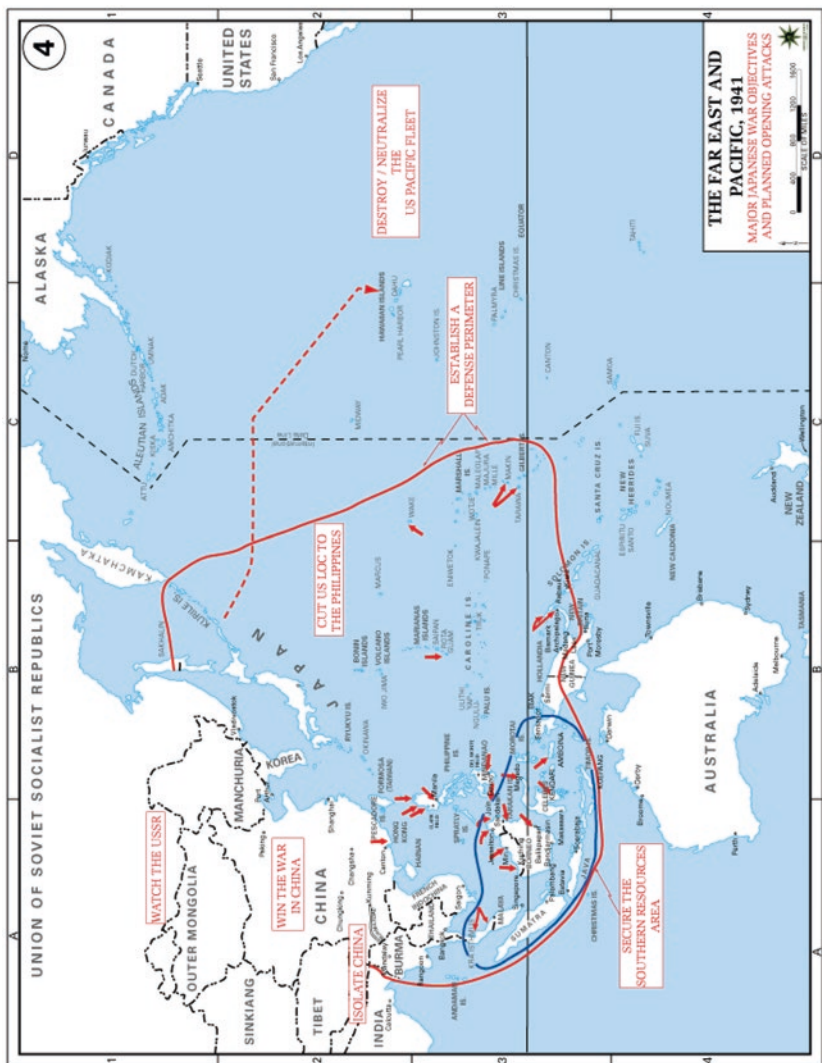


Fig. 4.5

what came to be known as the Arcadia Conference. The first order of business was to establish a wartime command structure, a task relatively easily accomplished through the establishment of the Combined Chiefs of Staff to be headquartered in Washington. From there, things became tricky when it came to discussing future strategic and operational matters. The British, having nearly been defeated by the Germans in 1940, only to be saved by the RAF, came to the conference with five specific topics of discussion. These included:

- (i) establishing the fundamental basis of joint strategy.
- (ii) interpretation of (i) into terms of immediate military measures, including redistribution of forces.
- (iii) allocation of joint forces to harmonize with (i).
- (iv) develop a long-term program based on (i), including forces to be raised and equipped required for victory.
- (v) set up joint machinery for implementing (ii), (iii), and (iv).<sup>109</sup>

The Americans, by contrast, came to the conference without any specific strategy in mind; however, it became abundantly clear, that while U.S. public opinion might favor an all-out assault on the Japanese, Roosevelt realized the primary objective must be Germany. The Americans then advocated that a cross channel invasion into northern France, followed by a drive into the Ruhr, the industrial heartland of Germany, should be the strategic objective. The British, by contrast, having confronted both the Wehrmacht and Luftwaffe for two years, made the case for a peripheral strategy by launching campaigns in North Africa and the Mediterranean in order to “blood” the inexperienced American troops while at the same time targeting the German economy through a strategic bombing offensive. In any case, a cross channel invasion in 1942 was deemed impossible; 1943 was set as the earliest date such an operation could be launched. However, the influence of civilian economists who had been drafted into the military to provide analytical support to combat operations (the first operations research analysts that would come to dominate post-war strategic military thinking), showed that even this date was far too optimistic.<sup>110</sup>

*1942*

The year began with a dispute between the American Chiefs of Staff and their British counterparts over how to proceed in Europe. As discussed above, during the Arcadia Conference in Washington, the United States favored an early invasion of the European continent while the British, arguing the American armed forces were not yet ready to take on the formidable German war machine, sought to mount an attack on the “soft underbelly” of the Mediterranean, beginning with a campaign to dislodge German forces under the command General Erwin Rommel then operating in North Africa. Both Germany and the allies began to build up their forces in the region beginning in early 1942.<sup>111</sup>

On January 21, 1942, General Erwin Rommel launched an offensive eastward against the allied forces deployed in North Africa. At the Battle of Gazala, Rommel attacked, hoping to outflank the allied position and roll up its defenders. After a fierce battle, and nearly out of fuel, Rommel’s Italian allies broke through a series of minefields, thus allowing new gasoline supplies to reach the Germans. This resupply effort allowed the Germans to resume the offensive, forcing a British withdrawal on June 13, 1942.<sup>112</sup> However, the British were not quite finished in Africa just yet. General Bernard Montgomery had taken command of the British Eighth Army and prepared to take the offensive. After rebuilding his forces following their defeat at the hands of Rommel’s Afrika Corps earlier in the year, he launched an offensive on October 23, 1942, at El Alamein, hoping to hold the German armored forces at bay while destroying their infantry, then turning his attention back to Rommel’s armored units. Taking advantage of Rommel’s absence in Europe to deal with a medical issue, Montgomery’s forces, vastly outnumbering the Germans, kept up an inexorable pressure on the Germans for nearly two weeks, eventually forcing the Germans to withdraw to the west.<sup>113</sup>

As 1942 dawned, Roosevelt continued to search for the optimal mobilization structure. On January 16, 1942, Roosevelt, changing mobilization horses once again, established the War Production Board (WPB). Designed to succeed the OPM, the WPB was headed by Donald M. Nelson, who brought along many of his subordinates from the OPM to help man the new organization.<sup>114</sup> In addition to the WPB, a Combined Raw Materials Board (CRMC) was established on January 26, 1942, to coordinate the development, expansion, and of use of raw materials to supply the British

and American forces.<sup>115</sup> The services likewise began reorganizing themselves for what now appeared to be a lengthy conflict. On January 30, 1942, Secretary Frank Knox established the Navy's Office of Procurement and Material (OPM), not to be confused with the Office of Production Management (OPM). Under this scheme, the CNO would determine the material requirements of the Navy; OPM then took charge of procuring the required supplies and munitions. Once secured, the CNO then had the responsibility for delivering these goods to previously designated units. Initially, four branches of the naval procurement establishment from the CNO's office were transferred into the OPM.<sup>116</sup>

As for the War Department, it too underwent a substantial reorganization at Roosevelt's behest largely to lighten the workload of the Army's chief of staff, General George C. Marshall. Following an executive order from the president, the Army restructured itself into three major commands. General Brehon Somervell was named the commander of the Army Supply Forces (ASF), following a merger between the industrial mobilization operations of the Office of the Undersecretary of War (OUSW) and the Army's General Staff's G-4 supply section (Somervell had previously been the Army's G-4). Over time, the Army Ground Forces and the ASF learned to work well with each other; however, there was friction from the beginning between the Army Air Forces (AAF) and ASF. The AAF, with one eye on the war and the other on eventual independence from the ground forces, jealously guarded its operational and resource management operations from outside interference. To that end, the AAF developed its own requirements and ran its own procurement function; essentially, it looked to control overall production of all items relating to air operations by dealing with the WPB directly.<sup>117</sup>

By February 1942, the U.S. Army was planning how to implement the Arcadia Agreement and its Germany first proposition. Roosevelt's chief military planner, Brigadier General Dwight D. Eisenhower, had formulated three potential scenarios: "Bolero"—preparation for a cross channel invasion; "Roundup"—an actual invasion of France in 1943; and "Sledgehammer"—a smaller invasion of Europe should the Russian forces collapse. By April 1, 1942, a potential strategic plan for an invasion of Germany from northwestern Europe had been approved by Marshall and forwarded onto Roosevelt. Roosevelt too would opt for Bolero and the cross channel invasion strategy. However, as he and his planners would soon find out, economic considerations (along with subsequent conversations with Churchill, who favored action in North Africa) meant no invasion could take place until 1943. In sum, the amount of supplies and equipment required for such a large force simply could not be produced in 1942.<sup>118</sup>



In the Pacific theater, meanwhile, the Japanese advance continued unabated.<sup>119</sup> Having taken Malaya, Singapore (on February 15, 1942, through an unexpected march south through jungle terrain as opposed to the amphibious assault expected by the British), and the Dutch East Indies during January and February 1942, this rapid movement forced the allies to reconsider their defensive strategy. The British would now take responsibility for India and the Indian Ocean while the Americans created the China–India–Burma Command under the leadership of General Joseph Stilwell.<sup>120</sup> The United States also took responsibility for the Pacific theater although this was further subdivided into two subordinate commands. The Southwest Pacific command under MacArthur retained responsibility for Australia, New Guinea, and the Philippines; this command would employ the “island hopping” strategy designed to bypass Japanese strongpoints. The Pacific Ocean Areas command, led by Admiral Chester W. Nimitz, was primarily oriented toward the remainder of the ocean, with three subordinate commands comprising the North, Central, and South Pacific areas.<sup>121</sup>

In turn, the Japanese modified their strategy as well. The original plan called for the establishment of a defensive perimeter stretching from the Burmese–Indian border in the west to northern New Guinea, the Bismarck and Gilbert island chains, Wake Island, and the home islands to the south and southeast of Japan. Given the speed of their advance, the Japanese high command now set its sights on bigger game, envisioning an extension of the perimeter to include Midway Island, southern New Guinea, and the southern Solomon Islands. By taking Midway, the Japanese could harass what was left of the American navy still resident at Pearl Harbor; the acquisition of southern New Guinea and the Solomons would provide platforms for harassing Australia while at the same time providing opportunities to interdict the trans-Pacific trade routes running from the United States and the Panama Canal.<sup>122</sup>

However, before the Japanese could implement this new strategy, they needed to subdue the Philippines. MacArthur had withdrawn his forces to the mountainous jungle region at the extreme south of the Bataan peninsula with little hope of any relief or resupply. Between January 26 and February 8, 1942, Homma’s forces mounted a series of frontal assaults on the American positions but were repulsed. Sensing the desperate situation, on March 11, 1942, Roosevelt ordered a reluctant MacArthur to redeploy to Australia and assume overall command of the allied forces in the South

Pacific; he arrived safely on March 17, 1942. Before his departure though, MacArthur ordered his senior subordinates to prepare for guerilla warfare. A number of troops had managed to escape to the citadel of Corregidor where they held out for a nearly another month before surrendering to the Japanese on April 9, 1942.<sup>123</sup> Meanwhile, Congress passed the Public Debt Act of 1942 on March 28, 1942, “(amending) the provisions of the Public Debt Act of 1941 removing the exemption from Federal income taxation previously given to obligations of the United States and its instrumentalities, were extended to shares, certificates of stock, and other evidences of ownership issued by agencies and instrumentalities of the United States.”<sup>124</sup>

Between May and July 1942, the Japanese took control of the Solomons and began building an airfield on the island of Guadalcanal to secure their position in the region. However, they would not be as fortunate at the Battle of Midway. On May 1, 1942, the Japanese began their advance toward Midway. However, due to American naval intelligence’s breaking of Japanese codes, the U.S. Navy was well aware of the Japanese movements. On May 7 and 8, 1942, the two formations confronted each other at the Battle of the Coral Sea, notable for being the first naval battle in history where the two sides never saw each other; in other words, this action confirmed the primacy of the aircraft carrier as the new class of capital ships. Despite losses on both sides (the Yorktown and Shokaku were both badly damaged and the small carrier Shoho sunk), the battle was a tactical victory for the Americans in that it halted a potential Japanese assault on Port Moresby on the southeast coast of New Guinea (Fig. 4.6).<sup>125,126</sup>

The Japanese fleet, under the command of Admiral Isoroku Yamamoto, now prepared to move against Midway. He learned that two American aircraft carriers, the Enterprise and Hornet, had been rushed to the Coral Sea in the South Pacific to reinforce the carriers already present, the Yorktown and Lexington. Yamamoto had been given incorrect intelligence that both the Yorktown and Lexington had been sunk in the Coral Sea (the Yorktown had been badly damaged while the Lexington remained fully operational) and as such, believed there would be no American airpower in the Central Pacific to oppose an attack at Midway. Still to be sure, he assembled an armada of 165 ships, including four large aircraft carriers for the proposed assault. He was also unaware that the Americans had broken Japanese naval codes and were fully cognizant of his plans. Nimitz then ordered the Enterprise-Lexington task force under the command to sortie north at their greatest speed to rendezvous with the Yorktown, which had

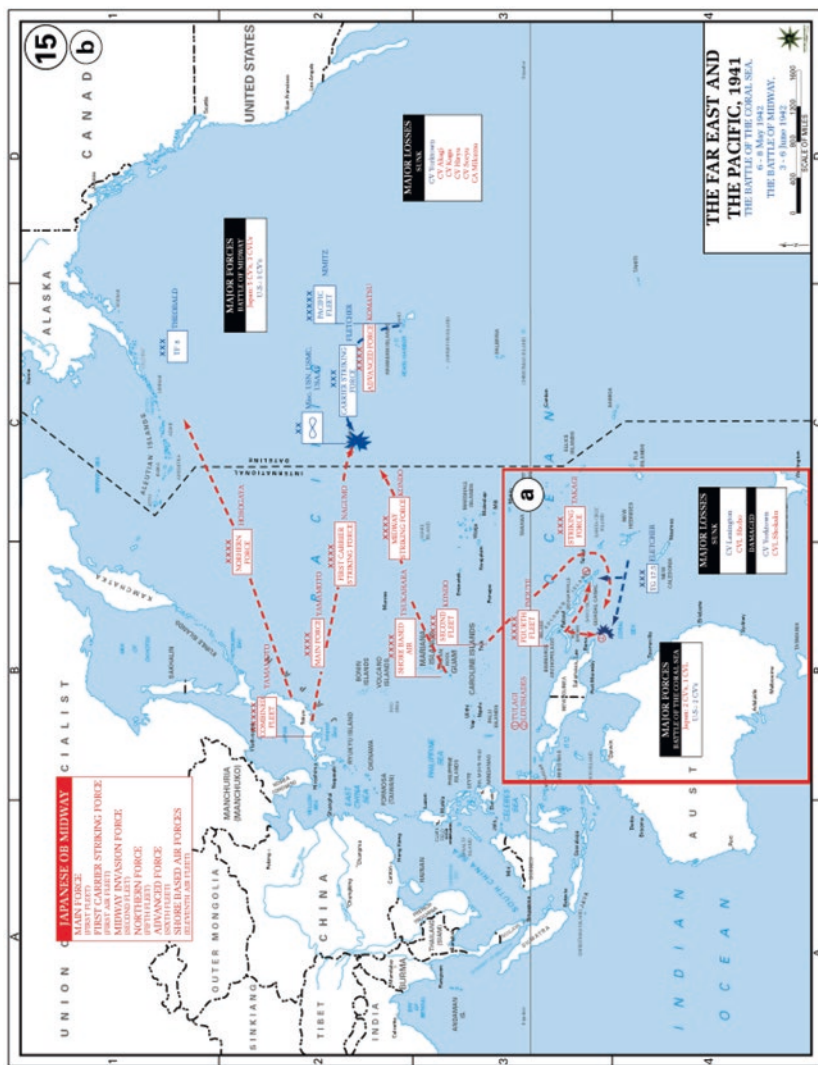


Fig. 4.6

undergone a complete set of repairs at Pearl Harbor in just forty eight hours before setting sail again.<sup>127</sup>

The Battle of Midway actually began with a diversionary attack on the Aleutian Islands in Alaska between June 3 and June 7, 1942. A Japanese naval task force bombarded Dutch Harbor and landed troops on the islands of Kiska and Attu on June 6 and 7, 1942. However, having broken the codes, the American knew this was merely a diversion, (albeit an embarrassing one, given another successful Japanese attack on American soil), and continued their preparations to meet the main Japanese fleet. The battle itself took place in four phases. In the first, Nagumo launched half of his aircraft, 108 planes in all, in a series of early morning attacks (3:00–07:00 a.m.) in an effort to catch the Americans unaware, much as he had at Pearl Harbor. However, being fully informed of the Japanese operational plan, the Americans were waiting; when the attacking aircraft arrived, the American engaged both the incoming bombers and the carriers themselves. Despite the advanced warning, the American fighter planes were no match for their Japanese counterparts when it came to speed. The inbound bombers finally broke through at 6:30 a.m. and badly damaged the island's facilities.<sup>128</sup>

Once again, faulty intelligence was to plague the Japanese. Nagumo received word from the first wave of attackers that a second strike would be required to complete the job. With that in mind, he ordered his crew to rearm his reserve aircraft with incendiary and fragmentation ordnance in place of the armor piercing bombs and torpedoes they had originally been armed with. Then, he received word that a large American formation of warships had been sighted to the northeast. Nagumo then changed direction again and order his remaining aircraft to once again be armed with armor piercing bombs and torpedoes for use against naval targets. Admiral Frank Fletcher, the overall American commander operating from the Yorktown, ordered his subordinate commander Admiral Raymond Spruance, based on the Enterprise but overseeing both his own and the Hornet's air groups, to send his dive and torpedo bombers after the Japanese carriers.<sup>129</sup>

While the torpedo bombers were totally ineffective, failing to score even one hit, the dive bombers, after initially overshooting the Japanese, returned and launched a devastating attack on the Japanese carriers, whose decks were covered with refueling equipment and ordnance. Within a few hours, three of the Japanese carriers, the Akagi, Kaga, and Soryu, were in flames; all three would sink shortly thereafter. The fourth Japanese carrier,

the *Hiryu*, rearmed her aircraft while searching for the *Yorktown*. Unlike the Battle of the Coral Sea, the *Yorktown* had now run out of luck. She was hit by three bombs and later two torpedoes and sent to the bottom. But there was a measure of satisfaction still to be gained by the Americans. Shortly after the demise of the *Yorktown*, twenty four dive bombers from the *Enterprise* located the *Hiryu* and likewise dispatched her to the bottom of the sea.<sup>130</sup> Yamamoto sought to retrieve some success by sailing east at top speed with his own forces while attempting to lure the inferior American surface into battle; however, Fletcher, satisfied with the outcome of the battle to date, declined to pursue what was left of Nagumo's forces and retreated.<sup>131</sup> However, the fighting in the Pacific theater was by no means over. Between August 1942 and February 1943, the Japanese and Americans would engage in a six-month slugging match in the area surrounding the Solomon Islands. While the Japanese managed to reinforce their forces on Guadalcanal, the Americans landed Marines on the island as well. After months of bitter fighting, much of it hand to hand due to the nature of the jungle terrain, the Japanese finally evacuated the island during the first week in February, 1943.<sup>132</sup>

The mobilization structure meanwhile continued to evolve. On June 9, 1942, two more joint boards were established. The first, the Combined Production and Resources Board (CPRB), consisted of American and British representatives looking to integrate requirements planning and war production programs so as to meet essential civilian needs, while at the same time minimizing demands on a limited amount of merchant shipping already subject to unrestricted German submarine warfare. The duties of the Combined Food Board (CFB) essentially consisted of ensuring an adequate supply of food in both the United States and, in particular, Great Britain.<sup>133</sup> In July 1942, the WPB was reorganized yet again. A restructured board freed up Nelson from day-to-day duties to concentrate on achieving full economic mobilization. Structurally, the Division of Industry Operations was replaced by the Director General of Operations who also absorbed the Materials and Production branches, all commodity branches, and a number of other bureaus, and advisory committees. This organizational change was prompted in large part by the switch from the Production Requirements Plan (PRP—a voluntary and horizontal plan established in November 1941 that allowed suppliers to state production materials requirements to the WPB in order to support government orders) to the Controlled Materials Plan (CMP), which was “a vertical plan under which allotments were made by programs and passed down

from a procurement agency (i.e., the armed forces) to prime contractor and subcontractor, whereas in the PRP, orders had been received from all levels in the subcontracting plan.”<sup>134</sup>

On July 8, 1942, the British chiefs of staff sent a message to their American counterparts detailing potential obstacles that made a 1942 invasion impossible and one in 1943 unlikely, in large part due to the economic considerations mentioned previously. The British reiterated their call for a North African operation in line with Churchill’s “soft underbelly” strategy. However, two days later at a meeting of the JCS, Marshall argued instead for a combined land and naval assault in the Pacific, citing the public popularity such an operation would generate while at the same time relieving pressure on the Russians, although not to the same extent a cross channel European invasion would. Roosevelt, however, was not to be dissuaded from the Germany first strategy.<sup>135</sup>

On October 3, 1942, Roosevelt established yet another mobilization agency, the Office of Economic Stabilization (OES). Among its responsibilities were to

“formulate and develop a comprehensive national economic policy relating to the control of civilian purchasing power, prices, rents, wages, salaries, profits, rationing, subsidies, and all related matters—all for the purpose of preventing avoidable increases in the cost of living, cooperating in minimizing the unnecessary migration of labor from one business, industry, or region to another, and facilitating the prosecution of the war. To give effect to this comprehensive national economic policy the Director shall have power to issue directives on policy to the Federal departments and agencies concerned.”<sup>136</sup>

Congress followed this by passing the Revenue Act of 1942 on October 21, 1942. The Act amounted to a fundamental rewrite of the U.S. tax code. In addition to “normal” taxes on individuals, the act also called for surtaxes on certain individuals, as well as taxes on both domestic and foreign corporations and non-resident alien individuals. The act also specified the tax treatment of a number of items affecting both corporations and individuals ranging from bond amortization to personal health care.<sup>137</sup>

In the meantime, the Americans, after considerable debate with their British counterparts and reservations on the part of the JCS, finally got their chance to operate in North Africa with the advent of Operation Torch, designed to seize Algeria, Morocco, and Tunis. With three major ground elements numbering over 100,000 men as well as substantial naval

support, the allied force landed at Tunis, Tunisia on November 8, 1942. However, the landings were actively opposed by the resident French forces on the orders of General Philippe Petain, now in charge of the Vichy regime, reinforced by Germans troops from occupied France. However, a senior French admiral, Jean-Francoise Darlan, was located and taken into protective custody. Once there, he immediately ordered all French resistance to cease. Both the Germans and Americans attempted to seize control of the country but by year end, the two sides found themselves stalemated in north central Tunisia.<sup>138</sup>

Beginning in January 1942, it was readily apparent to the Germans that, just as was the case in World War One, both Britain and Russia would be dependent on United States for financial and resource support. Realizing they could not mount a successful campaign against the continental United States, Germany focused her naval efforts on controlling the vital sea lines between America and her European allies. Sixty four U-boats deployed into the Atlantic Ocean while German surface ships looked to assist a joint Luftwaffe–U-boat operation along the Norwegian coast in an effort to interdict the only available sea route still open to Murmansk, Russia. Between February and July 1942, the Germans extracted a heavy toll on these Russian bound convoys; however, Allied countermeasures had improved to the point where in December 1942, some eighty five U-boats, and more importantly their experienced crews, had been lost.

Meanwhile, on the eastern front, the Russians, having reconstituted their forces and upgraded its leadership, continued their winter counteroffensive against the Germans in January and February, 1942. However, the Germans were as effective in the defense as they were in the offense and the attack petered out. There was little maneuvering between March and May due to heavy rains and the resultant mud but on July 13, 1942, the Germans launched another offensive that would bring them to the gates of Stalingrad, which they reached on August 24, 1942. However, the German attack would falter in the face of fierce Russian resistance, complicated by their extremely long resupply line.<sup>139</sup> On November 19, 1942, the Russian launched yet another counteroffensive against the German forces, resulting in a double envelopment of the Sixth Army, the main German formation besieging the city. The German position collapsed unable to withdraw in the face of Hitler's refusal to acknowledge the seriousness of the situation. Although the Sixth Army held on for another few months, in the end, the German offensive effort in Russia ended; from now on, the Nazis would be on the defensive.<sup>140</sup>

On December 7, 1942, the Strategic Survey Committee of the JCS produced its first report of the war. The report confirmed what economists had been telling the military experts all along: The earliest possible date for a cross channel invasion was 1943 but with the caveat that all other allied forces stand down in order to build up the requisite forces to mount the operation. However, JCS planners took a different view. They had resumed planning Operation Roundup, meaning that in their opinion, 1944 was the earliest an invasion could be launched. Accepting the recommendations of the Center meant abandoning Operation Torch and reallocating those forces to continental Europe. Finally, the disaster at Dieppe, where an allied force mounted an amphibious raid on the German held port, sustaining over 65% casualties in the process, confirmed British suspicions regarding the strength of the defenses along the French coast. As such, the combined JCS planners, despite acknowledging the defeat of Germany remained the primary strategic objective, favored action in the Pacific.<sup>141</sup>

Morganthau followed this by releasing his Annual Report of the Secretary of the Treasury on January 6, 1943. In it, he referred to a number of stabilization agreements being signed (Ecuador, Iceland, and Mexico) but the most important agreements were with the Soviet Union and China.

“During the year three gold purchase agreements were made with the Union of Soviet Socialist Republics. The agreements called for future delivery of the gold purchased by the Treasury. The first purchase, amounting to \$10.5 millions, was made on August 15, 1941, on a 90-day delivery basis, and delivery was completed by October 20, 1941. The second agreement, made on October 10, 1941, was for the purchase of \$31.6 million of gold, and called for its delivery within 180 days, by April 8, 1942. The delivery date was extended because of transportation difficulties, but by April 20, 1942, delivery had been completed. On January 3, 1942, a third agreement was entered into, the Treasury purchasing an additional \$21.1 million of gold from the U. S. S. R., to be delivered within 180 days. By June 30, 1942, a substantial part of the gold had been delivered.

Dollar assets made available by these gold transactions were used by the U. S. S. R. to purchase in the United States goods and services in addition to materials being obtained under the terms of the lend lease arrangement.

One of the most important international agreements during 1942 was that between the United States and China, on March 21, 1942, providing financial aid to China. By the terms of the agreement the Secretary



of the Treasury established on the books of the United States Treasury a credit in the name of the Republic of China for \$500 million. The Secretary of the Treasury agreed to make transfers, from this credit to accounts of the Government of the Republic of China in the Federal Reserve Bank of New York at such times and in such amounts as the Government of the Republic of China should request.”<sup>142</sup>

The Annual Report of the Federal Reserve Board of Governors was released somewhat later than usual (March 31, 1943). In it, Eccles noted

“The rapid growth of income in the hands of civilians and the accompanying decline in the volume of goods produced for civilian consumption resulted in constant upward pressure on prices. The Federal Reserve authorities endeavored, within the limits imposed by the exigencies of war finance, to do whatever was possible to minimize this inflationary pressure.

At the beginning of 1941 the banking system had ample reserves for meeting all immediate demands upon *it*, notwithstanding the fact that during the preceding autumn the Board, for the purpose of discouraging expansion of bank credit for nonessential purposes, had raised reserve requirements by about one-seventh to the maximum authorized by law. During 1942, however, excess reserves were subjected to a severe drain as the result of the rising volume of deposits and the constant growth in the demand for currency. The growth in deposits reflected purchases of United States Government obligations by the banks and the increase in money in circulation was due principally to the enlarged dollar volume of payrolls and retail trade,

In view of the consequent absorption of excess reserves and the greatly increased Treasury requirements necessitated by war, Federal Reserve authorities found it necessary in the course of the year to take a series of actions in order to assure the banks adequate reserves to serve as a basis for the purchase of such Government securities as it was necessary for them to buy...Nevertheless, excess reserves declined by a billion dollars during the year.”<sup>143</sup>

### 1943

At the beginning of 1943, the tide of battle clearly shifted from the Axis to the allies. The tenacious if extremely costly counteroffensives by Soviet forces had put the Germans on the defensive. Likewise, in the Pacific theater, momentum was shifting from Japan to the allies as a result of the victories at Midway and Guadalcanal. Not only had the Japanese carrier

strike forces been decimated along with their crews at Midway, the exhaustive campaign around Guadalcanal permanently deprived the Japanese of additional trained and experienced pilots not easy to replace. The Japanese placed their hopes in the string of island strongholds they believed the Americans would have to take by force if they wanted to win the war; by holding fast, the Japanese hoped to wear out the American resolve to continue the war, much as the Confederates wished to do during the Civil War. However, not only was there no desire for a negotiated peace on the part of the United States, but also the Japanese failed to anticipate the introduction of World War One German Hutier tactics on an operational scale.<sup>144</sup>

However, as the Japanese were to find out to their dismay, the Americans had no intention of needlessly shedding blood and silver on these fortified positions; instead, they would look to bypass these strongpoints, although this was not always possible. Moreover, the American defense industrial base was now kicking in at high gear. Her naval power was growing but with little opportunity to influence the European theater in terms of great naval engagements of the sort favored by Mahan, most of this capability naturally deployed to the Pacific theater. In turn, this required adding additional land and air strength.<sup>145</sup>

Between January 14 and January 24, 1943, Roosevelt, Churchill, and their senior military advisors met at Casablanca, Morocco, to discuss strategy for the year (Stalin did not attend due to the ongoing Soviet military operation on the eastern front). While both the British and Americans continued to have differences over strategy, in the end, a compromise was reached. The British consented to a widening of the Pacific campaign while the Americans agreed to postpone a cross channel invasion until 1944.<sup>146</sup> Following Casablanca, the primary allied objective now became the port of Rabaul, Papua New Guinea. Rabaul served as the southeastern anchor of the entire Japanese defensive remaining in the Pacific theater. The American high command decided on a two pronged offensive, one primarily naval in concept and the other employing more of a ground based strategy. The first prong required Admiral William Halsey's forces to advance northwestward through the Solomons. The ground based part of the strategy called for the U.S. Sixth Army to drive northward through northeast Papua New Guinea toward Rabaul, the epicenter of Japanese military power in the south Pacific—the beginning of the island hopping strategy (Fig. 4.7).<sup>147,148</sup>

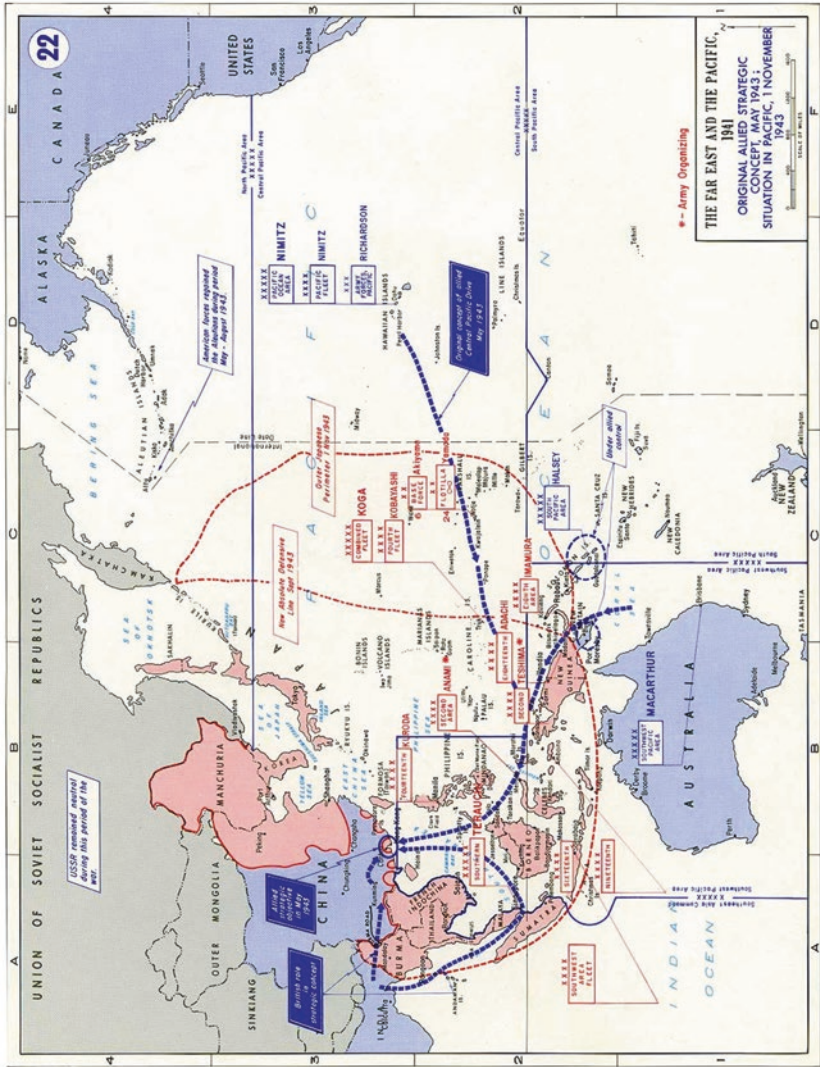


Fig. 4.7

Through the remainder of 1943, the Americans would continue to roll up the Japanese defensive perimeter; however, one of the major operational/tactical events of the year occurred on April 18, 1943. Yamamoto flew from Rabaul to Bougainville Island in the Solomons on an inspection; as usual, American naval intelligence intercepted traffic detailing the trip. Yamamoto, traveling in a bomber without a fighter escort, although accompanied by another bomber, came into contact with sixteen American fighter planes dispatched by Halsey from Henderson Field on Guadalcanal. Both Japanese aircraft were shot down with all hands, including Yamamoto, lost. Yamamoto's death was a major setback in that he constituted the strategic brain trust behind the Japanese effort in the Pacific.<sup>149</sup>

In North Africa meanwhile, the allies and the Axis forces remained stalemated. However, Rommel attempted to change the tone of the campaign when on February 14, 1943, he launched a surprise attack on an American corps holding the southern end of the allied line at the Battle of the Kasserine Pass. Using blitzkrieg tactics and supplemented by close air support, Rommel very nearly separated the allied formations (the British held the north end of the line), whence he could defeat them in detail. However, the allies were able to regroup largely as a result of the failure of the Germans to unify their own forces. On March 6, 1943, Montgomery's British forces defeated Rommel at Medenine; following the battle, Rommel, still battling illness, left for Europe. Between April and May 1943, the allies aggressively counterattacked; by May 13, 1943, the Axis forces were surrendering in droves.<sup>150</sup>

Meanwhile, Roosevelt presented his annual budget message to the Congress on January 6, 1943, noting: "For the whole of the current fiscal year total war expenditures are now estimated at seventy seven billion dollars; for the next fiscal year, at hundred billion dollars. These estimates include the net outlays of Government corporations for war purposes and assume only a small rise in prices."<sup>151</sup> The following day, Roosevelt gave his annual State of the Union address. In addition to noting the victories at Midway and in North Africa, he also pointed to some important aspects of the mobilization effort:

"Our 1942 airplane production and tank production fell short, numerically—stress the word numerically of the goals set a year ago. Nevertheless, we have plenty of reason to be proud of our record for 1942. We produced 48,000 military planes—more than the airplane production of Germany,

Italy, and Japan put together. Last month, in December, we produced 5,500 military planes and the rate is rapidly rising. Furthermore, we must remember that as each month passes by, the averages of our types weigh more, take more man-hours to make, and have more striking power. In tank production, we revised our schedule- and for good and sufficient reasons. As a result of hard experience in battle, we have diverted a portion of our tank-producing capacity to a stepped-up production of new, deadly field weapons, especially self-propelled artillery.”<sup>152</sup>

The constant establishing and disestablishing of mobilization agencies continued, accentuated in large part by power struggles between senior leadership, in this case, Donald Nelson, the head of the WPB, Ferdinand Eberstadt, a financier brought in by Roosevelt to run the CMP, and Charles E. Wilson, the former president of General Electric (GE) now serving as chairman of the Production Executive Committee of the WPB; both Eberstadt and Wilson, in addition to their own rivalry, were unwilling to serve in positions subordinate to Nelson. In the end, Nelson forced Eberstadt’s resignation, in turn, weakening his own position within the WPB while leading to yet another reorganization of the WPB.<sup>153</sup> This did not deter Roosevelt from establishing yet another major mobilization agency on May 27, 1943, the Office of War Mobilization (OWM). Roosevelt’s executive order stated

“It shall be the function of the Office of War Mobilization (and its director), acting in consultation with the Committee and subject to the direction and control of the President... to develop unified programs and to establish policies for the maximum use of the Nation’s natural and industrial resources for military and civilian needs, for the effective use of the national manpower not in the armed forces, for the maintenance and stabilization of the civilian economy, and for the adjustment of such economy to war needs and make provision for supplies, facilities, and services necessary to discharge his responsibilities.”<sup>154</sup>

By contrast, the administration experienced better success on the financial front. On April 12, 1943, the Treasury floated its second loan of the war. Like the first effort, this loan greatly exceeded its initial goal of raising \$13 billion, generating \$18 billion in new funds, an oversubscription rate of 138%.<sup>155</sup> However, by now, relations between the administration and Congress over fiscal and monetary policy were becoming strained. In terms of fiscal policy, many on Capitol Hill became concerned over

whether the tax burden was equitable as currently configured. Some members favored an across the board sales tax; however, Roosevelt and Morgenthau, in particular, were opposed on the grounds that this might fall disproportionately on low-income Americans.<sup>156</sup>

Morgenthau believed that between progressive taxation and high interest rates, higher-income taxpayers and defense contractors might benefit most. The administration, in turn, looked to the Federal Reserve to bring down interest rates. With these concerns in mind, Congress passed the Current Payment Tax Act on June 9, 1943. The major impact of the legislation was to change the withholding period for individual taxpayers. Before the Act was passed, citizens paid taxes in March; the withholding period shifted most tax collections to the current year. The net effect of this change in the law meant simplified enforcement as well as a much larger tax base.<sup>157</sup> At the same time, Somervell proposed reorganizing the ASF to completely eliminate the technical services. However, this proposal was deemed a reorganization too far by Secretary of War Henry Stimson, who turned down the proposal.<sup>158</sup>

Roosevelt, Churchill, and the Combined Chiefs of Staff met in Washington between May 15 and May 25, 1943, at what became to be known as the Trident Conference. The two sides came to the conference with different ideas on how to proceed as the war entered its fourth year. Roosevelt came out in favor of a cross channel operation in the spring of 1944; Churchill agreed but the two staffs favored different approaches. The American generals wanted to focus on the cross channel operation, while their British counterparts wanted to follow through the campaign in Italy to what they believed to be its logical conclusion.<sup>159</sup>

In the end, the two most important outcomes of the conference were agreements to greatly increase the intensity of the strategic bombing offensive between July and December 1944, and begin planning for a cross channel invasion of Europe by an amphibious landing on the French coast. The two staffs examined all the potential landing site and concluded that the area east of the Contentin Peninsula in Normandy made the most sense for a number of reasons: its proximity to allied fighter bases across the channel in England; the short trip by boat from Britain to France; the nature of the beaches and inland areas for breakout operations; on the other hand, any landing would have deal with the formidable Germans defenses now being supervised by the old allied menace, Erwin Rommel.<sup>160</sup>

The allies then began their next move against the “soft underbelly” of Europe by mounting an assault on Sicily (Operation Husky). On July 9 and 10, 1943, a combined British and American force mounted an amphibious assault on the island. The landings were fiercely opposed by both German and Italian units; still the allies progressed steadily south and eastward. During the first three weeks of August 1943, both the Italian and German defenders evacuated Sicily to the Italian peninsula. In an equally important development, in the midst of the Sicily campaign, the Italian leader, Benito Mussolini, was overthrown on July 24, 1943, and later hanged. The Italians, weary of the war, signed a secret armistice with the allies on September 8, 1943. The following day, the U.S. Fifth Army, composed of one British and one American corps, under the command of General Mark Clark, made an amphibious landing in the Gulf of Salerno. The landing nearly failed under the weight of a determined counterattack by the Germans, requiring the intervention of three American battalions from the 82nd Airborne Division. Finally, after four days of intense combat, the allies managed to secure the beach head. Between September 18 and October 8, 1943, the allies consolidated their hold on southern Italy and set their sights on Rome. However, the advance north turned out to be a more difficult slog than anyone anticipated.<sup>161</sup>

At sea, meanwhile, the Germans ratcheted up the economic war by deploying over one hundred U-boats into the Atlantic. By the end of March 1943, 108 allied merchantmen had been sent to the bottom at the cost of only fifteen U-boats. The net upshot of this campaign was to reduce British war resources to a three-month supply. The allies changed tactics by organizing a combined air–sea campaign along with the use of microwave radar and aggressively attacking U-boats based in French ports. In the month of May alone, the Germans lost thirty eight U-boats, twelve more than the industrial base could manufacture each month. It quickly became obvious that Germany could not sustain losses like this indefinitely. With that in mind, the new German U-boat commander, Admiral Karl Doenitz, shifted the operational focus of his submarines, now organized into so-called “wolf packs” away from the Mediterranean to less congested areas west of the Azores, the South Atlantic, and the Indian Ocean, where airpower in particular could not be applied as effectively.

However, between June and December 1943, the U.S. Navy organized U-boat “killer groups” built around a small aircraft carrier carry-

ing twenty four fighter bombers, escorted by older destroyers or new destroyer escorts. In essence, the Americans were able to replicate the success of the British in the Mediterranean, putting further pressure on German shipbuilders to make good these losses. The Germans also lost the last of their surface fleet operating in the North Sea as well. On September 21 and 22, 1943, the battleship Tirpitz was badly damaged by an attack of British midget submarines while transiting a Norwegian fjord. Between December 24 and December 26, 1943, the battle cruiser Scharnhorst was attacked and sunk near the same fjord. With her demise, the Germans lost the ability to attack allied convoys resupplying the Russians through Murmansk.<sup>162</sup> In the meantime, the American Eighth Air Force and Britain's Bomber Command commenced a continuous twenty four-hour strategic bombardment of Germany, the Americans attacking by daylight and the British at night. The most important tactical innovation in the period was the deployment of the first long-range P-51 Mustang escort fighters. With the addition of these aircraft, the United States now had the ability to counter German fighters in theater, thus largely alleviating the threat to the bombers.<sup>163</sup>

Meanwhile, the German thrust at Stalingrad ended in defeat February 2, 1943, as a result of stiff resistance, a lack of resupply, and the Russian winter. Still, as the Russians advanced, the Germans, under Field Marshal Erich von Manstein, reorganized their forces and launched a counteroffensive beginning on February 18, 1943, which halted the Russian movement westward. However, the onset of spring, as it inevitably did in Russia, meant much rainfall, which, in turn, created vast seas of muddy terrain, bringing operations to a halt. Still, the Germans had little to be satisfied with. Following the disaster at Stalingrad, the Russians regained most of the territory lost in 1942; more importantly, Soviet military strength in terms of manpower and equipment was approximately four times that of the Germans, effectively condemning the Wehrmacht to a wearying defensive strategy. However, that did not deter the Germans from launching one last counteroffensive. On July 5, 1943, the two sides met at Kursk in what became the greatest tank battle in history. Between the two combatants, nearly 6,000 tanks were destroyed in the battle. By now, the allied strategy of attacking on multiple fronts was starting to pay dividends. The Anglo-American assault on Sicily so alarmed Hitler, he began transferring panzer divisions from the east to the west in anticipation of an allied offensive. While this would not manifest itself for another year or so, it had the



effect of further weakening Germans forces in the east, already severely outnumbered by the Russians.<sup>164</sup>

Meanwhile, on September 1, 1943, the United States raised its third loan of the war. The original goal was to raise \$15 billion through the sale of Series E savings bonds. With the assistance of a vigorous advertising campaign employing leading entertainers such as singer Kate Smith, who singlehandedly raised \$39 million following a one night performance on September 21, 1943, the drive raised nearly \$19 billion, 127% over its target.<sup>165</sup> Later that month, on September 24, 1943, Roosevelt ordered the establishment of the Joint Production Survey Committee (JPSC) which was designed “to furnish advice on problems concerning the balancing of the production of supplies with strategic requirements and to maintain close liaison between the military services and the Office of War Mobilization.” This agency was the best attempt of the war to coordinate strategy and economic production but like so many other mobilization agencies, it was doomed to failure, given its improvisational arrangement.<sup>166</sup>

The following day, Roosevelt announced the establishment of the Foreign Economic Administration (FEA). Its duties included

“The Office of Lend-Lease Administration, the Office of Foreign Relief and Rehabilitation Operations, the Office of Economic Warfare (together with the corporations, agencies, and functions transferred thereto by Executive Order No. 9361 of July 15, 1943), the Office of Foreign Economic Coordination (except such functions and personnel thereof as the Director of the Budget shall determine are not concerned with foreign economic operations), and their respective functions, powers, and duties are transferred to and consolidated in the Administration...The powers and functions of the Administration shall be exercised in conformity with the foreign policy of the United States as defined by the Secretary of State. As soon as military operations permit, the Administration shall assume responsibility for and control of all activities of the United States Government in liberated areas with respect to supplying the requirements of and procuring materials in such areas.”<sup>167</sup>

Back in the Pacific, the United States continued its inexorable advance across the sea. In mid-November, the Americans attacked the Gilbert Islands, simultaneously at Makin Atoll and Tarawa on November 20, 1943; Tarawa proved to be the harder nut to crack. As the Second Marine Division approached on foot (faulty reconnaissance failed to reveal that

the beach could not support amphibious landing craft), some 4,700 combat hardened Japanese veterans left their shelters, following an intense naval bombardment of their defensive positions, and awaited the Marines. Only 300 acres in size, the Marines were quickly reduced to holding a small sliver of the beach without the benefit of artillery support. It took four days of hard fighting before the Marines gained control of the small island. But it was also extremely costly; casualties amounted to 1,500 dead and wounded. Essentially the entire Japanese force was wiped out; only seventeen soldiers survived.<sup>168</sup>

### 1944

As 1944 dawned, the effect of American submarine warfare was having a noticeable effect on the Japanese economy. In 1943, some 300 Japanese merchantmen totaling 1.3 million tons had been sent to the bottom by American submarines. This was nearly double the replacement capability of the home islands industrial base, which itself was about to become the target of American air raids. However, the Japanese were nowhere near defeated. While the Americans continued their advance toward the Japanese homeland, efforts were underway to open land routes of resupply through Burma to the Chinese forces under the command of Generalissimo Chiang Kai Shek. The Japanese, still with a sizable force in China, intended to conquer all of southeastern China as a prelude to launching an invasion through Burma into India, where the hope was the indigenous population, after nearly a hundred years of British domination, would rise in revolt against their colonial masters; in the end, while the effort in India would end in failure, primarily due to logistical issues, they achieved more success in China.<sup>169</sup>

Meanwhile in Europe by early 1944, while the allies had momentum, the outcome of the war, as in the Pacific, was very much in doubt. Still, the advantage lay with the allies. The North African campaign had gone well, the Italians had departed the conflict, the Russians had turned the tide in the east and perhaps most importantly, the full weight of American manpower and industrial strength was coming to bear on the Germans. However, the Germans were by no means down and out. They managed to stalemate the allies in Italy, the U-boats remained a great threat, and the allied strategic bombing campaign had not severely impacted the German economy, which actually produced war materiel at an ever increasing rate.

In the United States, in the meantime, given that Roosevelt easily won re-election to his third term as the president, there would be no deviation from previous allied strategy. At some point in time, the allies would invade Europe partly to create yet another second front and partly to relieve pressure on the Soviet Union, which had already suffered mightily at the hands of the Germans.<sup>170</sup>

In his Annual Report of the Secretary of the Treasury dated January 10, 1944, Morgenthau warned of the need for additional taxes, noting

“The sevenfold increase in the receipts of the Federal Government will have achieved by the expansion of our tax system under five successive defense and war revenues measures already passed by the Congress, each of which acted a rapidly increasing national product. We have needed much more revenue than even these increases in taxes have produced but an adequate level of wartime tax revenue can only be reached in stages. It is difficult to step up taxes from a peacetime level fast enough to keep pace with wartime requirements. The successive adjustments taxpayers must make must be as large and rapid as feasible but not so drastic so as to endanger the stability and productivity of the economy.

It is very important however that an intermediate stage of increased taxes should not be confused with the final goal for wartime taxation. We have by no means reached a level of taxation which can be considered adequate for the remainder of the war period. The Federal Government is now absorbing, principally for war purposes, about one half of the gross national product; but is receiving less than one quarter of this amount in Federal taxes. This situation can hardly be defended as the final goal of a sound program of war finance.”<sup>171</sup>

In the meantime, the allies renewed the campaign in Italy with a landing on January 22, 1944, at Anzio on the Italian coast, the objective being to cut the German line of communications before moving on to Rome itself. While the initial landing was successful, due to a sense of complacency on the part of senior American commanders, who chose to leisurely consolidate the beach head, the Germans were able to shuttle reinforcements to the area. Between March and May 1944, the scene resembled a World War One battlefield. The Germans held the high ground with a complete picture of the American and British troops occupying the beach, who were then subjected to constant artillery and air attacks.<sup>172</sup> Finally, on May 11, 1944, the allied forces finally broke through the German lines and rapidly advanced on Rome. Although the Germans put up strong resistance, the allies entered Rome on June 4, 1944.<sup>173</sup>

In the meantime, the Treasury launched its Fourth Loan drive on January 18, 1944. Aimed at farmers and women, the initial goal was to raise \$14 billion. Once again, utilizing an aggressive advertising strategy, the effort raised nearly \$17 billion, 119% oversubscribed.<sup>174</sup> Following this offering, Congress passed the Revenue Act of 1944 on February 25, 1944. What was unusual about the legislation was that Roosevelt vetoed it on the grounds it would not raise enough revenue (only 20% of what the country needed) along with a perception the Act favored special interests at the expense of the common working man, FDR's most important constituency, in terms of financing the war; what was perhaps more unusual was that Congress overrode his veto.<sup>175</sup> The Treasury followed up by issuing its fifth loan of the war on June 12, 1944. This loan was the most ambitious of the eight drives during the war; the initial goal was to raise \$16 billion. However, by the time the drive concluded less than a month later, some \$20.6 billion was raised, an oversubscription rate of some 129%.<sup>176</sup>

Eccles also commented on the Federal Reserve's wartime effort in his Annual Report dated April 29, 1944.

“At the time the United States entered the war in December 1941, the Board of Governors issued a statement to the effect that the Federal Reserve System was prepared to use its powers to assure at all times an ample supply of funds for financing the war effort and to exert its influence toward maintaining conditions in the United States Government security market satisfactory from the standpoint of the Government's requirements. In discharging this responsibility during 1943 the System engaged in open-market operations to maintain stable conditions in the Government security market at interest rates in harmony with a pattern agreed upon with the Treasury... They actively cooperated with the Treasury by consulting on financing policies to be pursued and by assisting in every other way in carrying out the war financing program”.<sup>177,178</sup>

In May and June 1944, formal planning for the invasion of Europe code named Operation Overlord began under the command of General Dwight D. Eisenhower. The previous two months saw an active effort to attrit the Luftwaffe to a point where it could not negatively impact the operation. To that end, the allies engaged in a determined effort to destroy bridges, tunnels, roads and air bases around Normandy. As for the invasion itself, the allies envisioned assaults on five different beach heads. The U.S. First Army, under the command of Lieutenant General Omar Bradley, would land on the two most western beaches—Utah and Omaha—located on

either side of the Carentan estuary, supported by British and American airborne landings behind the German lines. The other three beaches to the east, Gold, Juno, and Sword, were the responsibility of the British and Canadian forces. General Sir Bernard Montgomery served as the overall commander of the invasion force, totaling some one million troops, two thirds of them Americans.<sup>179</sup>

On June 6, 1944, Eisenhower hurled the invasion force against the newly revamped German defensive positions along the French coast. After some initial pushback from the Germans, aided by strategic mistakes by Hitler that hampered his field commanders (he believed the attack would come in the Pas de Calais area to the east and ordered his armored units to remain in place), by the end of the day, five divisions had established a foothold on the beaches. Over the next 11 days, the allies expanded their beach heads while also taking the critical harbor town of Cherbourg. By August 1, 1944, the first phase of Operation Overlord was complete (Fig. 4.8).<sup>180</sup>

Although the Germans continued their fierce resistance, the allies liberated Paris on August 25, 1944. By the end of September, the Germans were isolated in western France, although they remained a potent fighting force due to a constant stream of replacements from both Germany and the eastern front, although as indicated before, this severely weak-

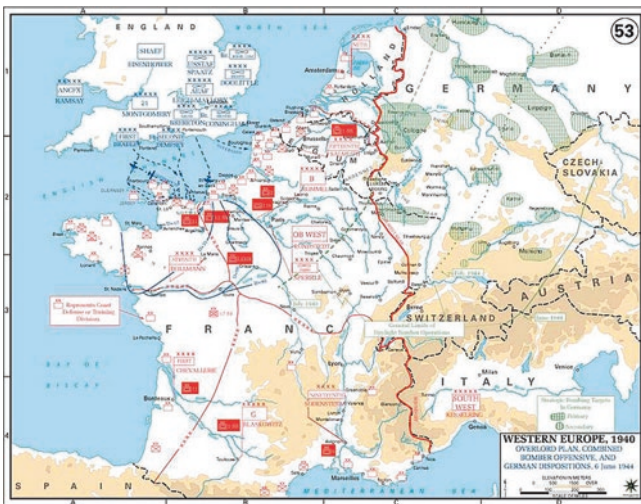


Fig. 4.8

ened the German effort against the Russians. However, one of the truths about modern mechanized warfare reared its ugly head. In late August and early September 1944, the allied armored formations had ground to a halt for a very simple reason: Due to the speed of their advance, they had outrun their supply lines. Gasoline and other petroleum products, in particular, were in very short supply; Generals Patton and Montgomery vied for the lion's share of what fuel was available, Eisenhower, aware of the rivalry between the two generals and the potential damage it could cause to the allied cause, assumed direct command of all ground operations with Montgomery assuming command of an army group.

Both generals wanted the honor of being the first in Germany itself; to that end, Montgomery came up with an innovative plan to turn the northern German flank code named Operation Market Garden. He envisioned dropping three airborne divisions, two of them American, behind enemy lines to capture several bridges spanning the Meuse, Rhine, and lower Rhine rivers in order to create a land along which his armored formations could advance into Germany. However, as is the case with airborne units, if not reinforced immediately with heavier units, they become susceptible to enemy counterattacks.<sup>181</sup> This is exactly what transpired during Operation Market Garden, launched on September 17, 1944. The American 82nd Airborne took its objective over the Meuse, the 101st the bridge over the Wilhemina Canal near Eindhoven while the British landing on the lower Rhine near Arnhem was seriously disrupted by the presence of heavy German units, resulting in the encirclement and isolation of the First Airborne Division. Although some of the British paratroops escaped back across the lower Rhine eight days later, three quarters of the original division strength of over 9,000 men were killed, wounded, or captured.<sup>182</sup>

In the meantime, allied forces continued to advance in the west. Between October 1 and October 23, 1944, the Americans advanced to the Westwall, a series of fortifications along the north German coast. On October 28, 1944, Eisenhower ordered another offensive to begin in November. The objective of this operation was to eliminate all German forces west of the Rhine while at the same time establishing a series of bridgeheads across the river to facilitate an advance into the German heartland. However, the Germans were about spring a surprise of their own (Fig. 4.9).<sup>183</sup>

Meanwhile, at an international conference held at Bretton Woods, New Hampshire, between July 1 and July 22, 1944, treasury officials, not central bankers, took the lead in structuring the structure of the post-war financial system. Roosevelt stressed the necessity of the agreement that

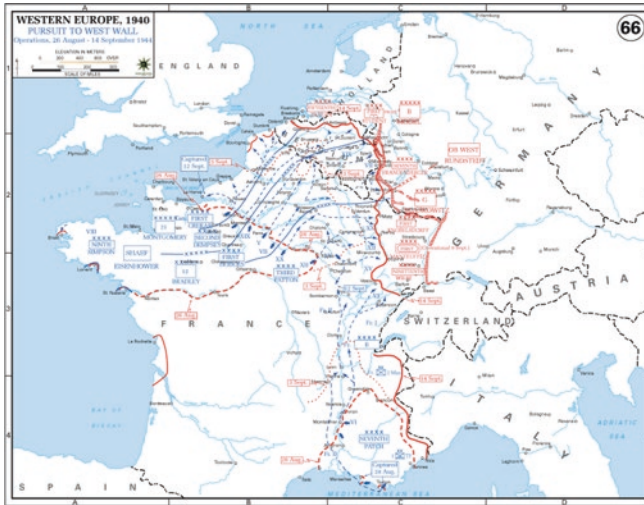


Fig. 4.9

established the International Monetary Fund (IMF) and its sister organization, the World Bank (WB):

“If we are to measure up to the task of peace with the same stature as we have measured up to the task of war, we must see that the institutions of peace rest firmly on the solid foundations of international political and economic cooperation...The cornerstone for international economic cooperation is the Bretton Woods proposal for an International Monetary Fund and an International Bank for Reconstruction and Development (eventually to become part of the modern World Bank).”<sup>184</sup>

Several key points emerged from the discussion. First, negotiators from each participant agreed that the floating interest rates of the 1930s not only prolonged the depression by suppressing trade and investment but also led to the competitive devaluations symptomatic of the era, whereby countries would deliberately lower the value of their currencies in order to make exports less and imports more expensive. At the same time, government policy makers were reluctant to lock themselves into fixed rates as well, preferring to give themselves some flexibility regarding monetary policy. What emerged from the discussions was the concept of a “pegged”

currency, whereby central bankers could intervene by raising or lowering interest rates within a certain band (1%) above or below that pegged value, in order to maintain equilibrium in the financial markets.”<sup>185</sup>

A second major point of agreement was to rejoin the gold standard, thus requiring countries to maintain gold reserves backing their specific currencies. British economist John Maynard Keynes came up with the idea of a “world” central bank to manage at least part of these gold reserves at an international level. This concept came to fruition with the founding of the IMF, essentially a fixed pool of national currencies and gold reserves contributed by each member as part of a quota system. Under the terms of the IMF charter, this quota would be filled 25% with gold and 75% in a country’s national currency. In the event a country found itself short of reserves, it could borrow foreign currency in an amount proportional to its predetermined quota.<sup>186</sup>

The IMF itself was expected to supply three key services to its members. First, on the regulatory front, the fund would assume the role of administering the rules pertaining to currency value and convertibility. Second, the IMF would act in a financial capacity, by supplementary liquidity to members if and when required. Finally, as discussed in more detail below, the fund would serve a consultative role between its member governments. The IMF was also to be supplemented by the founding of the International Bank for Reconstruction and Development (IBRD) to facilitate the post-war rebuilding effort (the IBRD eventually morphed into today’s WB).<sup>187</sup>

A third major point of agreement was the necessity of avoiding the sort of economic warfare seen in the 1930s, which many felt had played a role in exacerbating the effects of the depression. All participants agreed to refrain from engaging in discriminatory currency practices with two important exceptions. First, convertibility obligations were limited to international transactions only, with governments prohibited from regulating sales or purchases of currency within the context of goods and services. This prohibition, however, did not extend to capital account transactions. Second, convertibility obligations could be deferred during a post-war transitional period at the member’s request.<sup>188</sup> A final point of agreement was the IMF would act as the institutional forum for intergovernmental discussions on global monetary matters. A key sub-point was that rather allocating voting rights on a one state one vote basis, the members agreed to voting rights based on their respective quotas, effectively ensuring the United States, which agreed to a one third quota, veto power on all IMF decisions.<sup>189</sup>



In the Pacific meanwhile, the American advance continued. Between June and August 1944, U.S. forces arrived at Saipan in the Marianas Islands; capture of the island would permit the basing of new long-range B-29 bombers that, in turn, could strike the Japanese home islands. After nearly a month of bloody fighting, the Americans finally gained control of the island but only after significant losses of killed and wounded. The Japanese suffered nearly nine times the number of American casualties, including a substantial number of civilians. On the naval front, the Japanese launched one last major offensive during the Battle of the Philippine Sea between June 19 and June 21, 1944. The desperate attack and the losses incurred effectively crippled Japanese naval air power, not only due to the loss of planes, but just as importantly in terms of experienced combat pilots. Soon the “Divine Wind” or kamikaze attacks commenced since Japan no longer had the luxury of time to train replacements.<sup>190</sup>

By mid-1944, with the end of the war in sight, Roosevelt began weighing two different strategic operational approaches. MacArthur wanted to move on the Philippines first before launching an assault on Japan. Nimitz, by contrast, argued for interim moves on Formosa and China first. Roosevelt adopted MacArthur’s plan. The end concept called for a joint assault on Leyte, after which MacArthur’s forces would invade Luzon. At that point, Nimitz’s forces would attack the islands of Iwo Jima and Okinawa. Between October 17 and October 23, 1944, the opposing forces met at Leyte Gulf. The battle ended in complete disaster for the Japanese, who lost four carriers, three battleships, ten cruisers, eleven destroyers and one submarine. For all intents and purposes, the Japanese Imperial Navy ceased to exist as a fighting force. By December 1944, the Americans had taken Leyte itself.<sup>191</sup>

In November, 1944, Franklin Delano Roosevelt easily won re-election to his third term as the president; as before, there would be no deviation from previous allied strategy that targeted the defeat of Germany first. Back on the financial front, the United States floated its sixth loan of the war on November 20, 1944. A key difference in the marketing of this loan was that Japan, in light of the German setbacks in Europe, was now perceived as the primary enemy (although this would change based on the upcoming Battle of the Bulge discussed below). Once again the offering was very successful, raising some \$21.6 billion although no prior target had been announced.

In the meantime, Hitler decided to gamble the future of Germany on one last offensive that would come to be known as the Battle of the Bulge.

He hoped by launching a massive attack in the direction of the port city of Antwerp, he could cut off the supply line to the allied forces now threatening Germany while destroying those formations in place. However, his plan depended on three key elements. First, the Germans needed to achieve a breakthrough. Second, in order to keep their own forces resupplied, they needed to seize the allied fuel supplies in the vicinity of St. Vith and Bastogne. Finally, it was imperative they widen the initial gap between the allied formations in order to roll them up. On December 16, 1944, the attack was launched under the cover of bad weather, thus crippling allied air reconnaissance. Two panzer armies consisting of twenty four divisions, ten of them armored, struck the U.S. V Corps, achieving total surprise.<sup>192</sup>

Two armored divisions were sent to the area by Bradley, while Eisenhower deployed to the 101st and 82nd Airborne divisions to Bastogne and the northern flank, respectively. While the German armored units surrounded Bastogne, Patton attacked from the south to relieve the American paratroopers. Continued operational interference by Hitler greatly aided the allied counteroffensive. Between December 26, 1944, and January 2, 1945, the 101st continued to hold out in the face of severe pressure assisted by the return of good weather, permitting the allies to regain air superiority. Beginning on January 3, 1945, Montgomery's

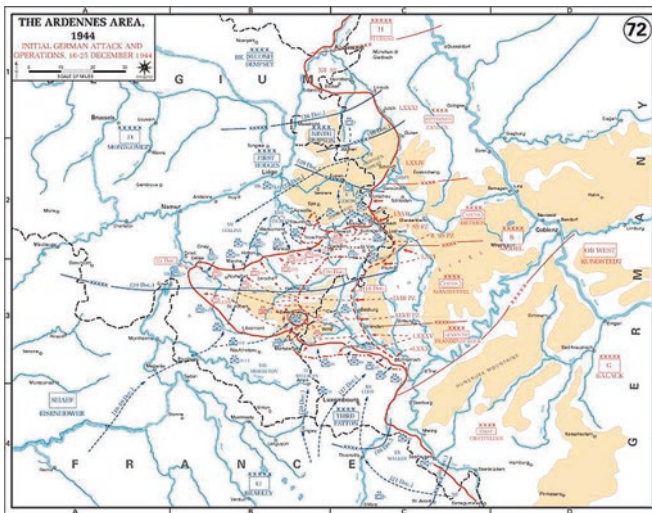


Fig. 4.10

forces attacked the northern flank of the Germans while Patton did the same in the south. By January 16, 1945, the battle was over and the bulge eliminated. With it went Germany's last albeit small chance to win the war in the west (Fig. 4.10).<sup>193,194</sup>

In the meantime, the Russians had not been idle. They continued to push relentlessly westward toward Germany but at the same time, Stalin, realizing the conflict would end sooner rather than later, began planning for a post-war Soviet occupation of eastern Europe. While his main objective remained Germany, he launched a series of supplemental operations toward the Baltics in the northeast and the Balkans to the southwest with the idea of creating a *fait accompli* for his western allies. Would the Americans and British have the courage to eject numerically superior Russian forces from established and distant positions deep within Europe or would they accept the political situation as it was? In the end, his erstwhile allies would have no choice but to bow to the inevitable. In the Pacific, the Americans relentlessly pushed onward toward the Japanese home islands. Still, the Japanese put up fierce resistance every step of the way, forcing Roosevelt and the Combined Chiefs of Staff to begin considering the costs of a front assault on Japan itself. Another alternative, more powerful and terrible than the world had ever seen, gradually came to the fore.<sup>195</sup>

On January 3, 1945, Morgenthau released his Annual Report of the Secretary of the Treasury. He chose to focus his initial thoughts in three areas: stabilization programs; tax policy; and debt management.

“By the beginning of the fiscal year 1944, the annual rate of war expenditures had stabilized, as the nation approached its effective production potential and this stability is likely to continue at least through fiscal year 1945...I said in my report last year, and I still believe, that it would be better for the economy of the United States, and fairer to the men in the armed forces if a larger portion of the current costs of the war were paid for by taxation. Congress has decided otherwise however; and there appears to be little likelihood of a substantial upward revision, in our tax system during the continuance of the present conflict.

Through heavy wartime taxes a large part of the financial cost of the war is being paid currently by wartime civilians instead of being deferred to be met by returning service men and women. The large revenue collections during the war are restricting the growth of the debt, thereby moderating post-war economic and financial problems. By channeling billions of dollars of spending power into the Treasury, wartime taxes are strongly buttress-

ing the program of economic stabilization. Civilian demands are thereby made more controllable and the strain is eased on direct controls, such as priorities, rationing, wage ceilings and price ceilings. High taxes on war profits and large incomes moreover have helped to gain popular acceptance of the stabilization program.

It is certain the present war will leave the United States with a large public debt...All borrowing during the wartime period has been by the issuance of securities, the interest on which is subject to the Federal income tax. The exclusive interest on such securities, which is now a permanent part of our public debt policy, has been achieved without any substantial increase in the interest rates on Federal securities above the rates which would have been necessary to pay on tax exempt securities. The taxability of the income on the wartime debt will both ease the problem of public debt management in the post-war period and make possible a more equitable and better balanced Federal tax system."<sup>196</sup>

Eccles followed with his Annual Report of the Federal Reserve Board of Governors on April 21, 1945, noting

“During 1944 the United States again used its industrial and agricultural resources at record capacity to support the armed forces of this country and her Allies. Output of civilian goods increased in some lines and was sufficient in the aggregate to maintain an undiminished volume of civilian consumption. Wartime controls over material, consumption, wages, and prices continued in *effect* and were successful in preventing vital shortages and rapid price advances. The cost of living showed little change during the year. Both individuals and businesses continued to have incomes far in excess of expenditures and to accumulate large amounts of liquid assets in the form of currency, bank deposits, and United States Government securities.”<sup>197</sup>

### 1945

On January 3, 1945, Roosevelt presented his Annual Budget message to Congress. In it, he stated

“We have now substantially completed our war construction. Expenditures for war construction, which in the fiscal year 1943 reached a peak of 12.7 billion dollars, are now down to an annual rate of about 2.5 billion dollars. The development of new weapons and increased need for ammunition still

require some new plants and equipment, but total outlays for war construction are declining.”<sup>198</sup>

Three days later, he delivered his annual State of the Union Address where he noted the successes achieved in both Asia and Europe:

“In the case of Japan, we had to await the completion of extensive preliminary operations—operations designed to establish secure supply lines through the Japanese outer-zone defenses. This called for overwhelming sea power and air power—supported by ground forces strategically employed against isolated outpost garrisons. Always—from the very day we were attacked- it was right militarily as well as morally to reject the arguments of those shortsighted people who would have had us throw Britain and Russia to the Nazi wolves and concentrate against the Japanese. Such people urged that we fight a purely defensive war against Japan while allowing the domination of all the rest of the world by Nazism and Fascism.



Fig. 4.11

In the European theater the necessary bases for the massing of ground and air power against Germany were already available in Great Britain. In the Mediterranean area we could begin ground operations against major elements of the German Army as rapidly as we could put troops in the field, first in North Africa and then in Italy. Therefore, our decision was made to concentrate the bulk of our ground and air forces against Germany until her utter defeat. That decision was based on all these factors; and it was also based on the realization that, of our two enemies, Germany would be more able to digest quickly her conquests, the more able quickly to convert the manpower and resources of her conquered territory into a war potential (Fig. 4.11).<sup>199,200</sup>

For all intents and purposes, by January 1945, the war in Europe was essentially over. The question was not so much whether the Germans would be defeated but rather what would the post-war map look like. The unexpectedly fast advance of the Americans and British in the west caused Eisenhower to rethink his operational plan. Rather than push on to Berlin as originally anticipated, he decided to encircle the Ruhr, the industrial heartland of Germany instead, while simultaneously moving northeast toward Hamburg, halting the advance on the Elbe River.

Between March 28 and April 18, 1945, the combined American and British forces accomplished this operation. They then moved toward Hamburg after confronting some last stiff resistance from the Wehrmacht and halted on the Elbe, sixty miles west of the German capital. The Russians meanwhile launched their final offensive on April 16, 1945; by April 25, 1945, they had surrounded Berlin. By May 2, 1945, the American, British, and Russian forces established contact with each other. Following Hitler's suicide, German representatives formally surrendered to the allies on May 7, 1945. The war in the west was over; however, the conflict in the Pacific would continue for another four months before the largest conflagration in the history of mankind finally ended.<sup>201</sup>

Entering 1945, after suffering devastating defeats the previous year, the war in the Pacific likewise seemed to be close to an end. The American industrial base was now at full throttle with no way for Japan to compensate. Still, the Japanese military remained a dangerous foe. The home islands were garrisoned by one million troops with another million on the Asian mainland, where Japan still controlled Korea, Manchuria, and much of China proper. The allied fear was two-fold—first, if any of these troops could shifted from the continent to the home islands, the United States

could find itself fighting street to street and house to house with a determined, fanatical foe not afraid of death. Conversely, if the government and any substantial number of troops from the home islands were to make it to the mainland, the United States might face the prospect of a long drawn out struggle where industrial might counted for little. The situation was further complicated by the untimely death of Roosevelt on April 12, 1945. He was succeeded by Vice President Harry Truman, who for some inexorable reason had been left completely in the dark by Roosevelt regarding the development of atomic weapons. In addition to following in the footsteps of one of the most popular presidents in American history, it would now be his decision as to whether to mount a conventional attack on the Japanese home islands or continue the atomic program.<sup>202</sup>

On May 14, 1945, the United States launched its seventh loan drive of the war. The Treasury targeted a \$14 billion raise; however, as was the case with the other loan drives, this offering was substantially over-subscribed by some 186% and raised \$26 billion.<sup>203</sup> Meanwhile, despite

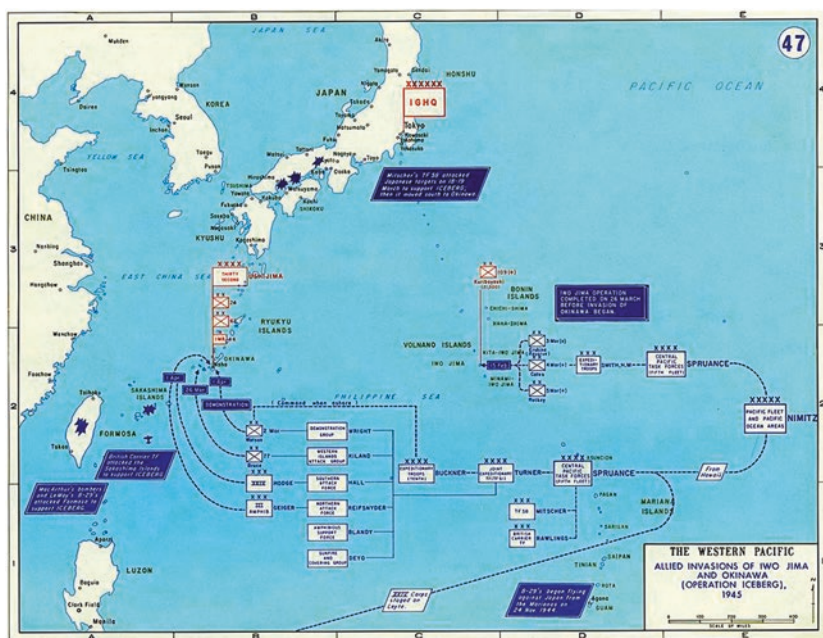


Fig. 4.12

the victory at Leyte Gulf, the Japanese were far from defeated. General Tomoyuki Yamashita, the conqueror of Malaya and Singapore, still commanded 250,000 troops in the Philippines. He abandoned any thoughts of defending Manila in order to retire to the mountainous regions of central and western Luzon, where like the Americans and Filipinos early in the war, he could fight a guerilla war. Although the operation technically finished on July 20, 1945, the Philippines did not fall until August 15, 1945, after a five month campaign resulting in Yamashita's final surrender. The United States lost nearly 10,000 troops against Japanese losses of nearly 200,000. Still, at the time of the surrender, Yamashita still commanded an organized force of 50,000 men that, properly resupplied, could have held out conceivably for some time (Fig. 4.12).<sup>204,205</sup>

Meanwhile, to the north, the other prong of the American offensive continued to advance against stiff resistance. The next major target of the United States was the small island of Iwo Jima. Only eight square miles in area, its importance belied its relatively tiny size. As long as the island remained in Japanese hands, it threatened the constant stream of B-29 bombers from Saipan wreaking havoc on the Japanese home islands. If the Americans could take possession, obviously these sorties could be launched that much closer to Japan. The Japanese commander, General Tadamichi Kuribayashi, had 22,000 troops with which to defend the island. He had his troops construct a series of fortified positions consisting of gun emplacements, pill boxes, and mine fields. Anticipating a heavy pre-landing naval bombardment, he also constructed an underground cave system designed to protect his men until the Americans landed, at which point they would occupy their prepared systems. Willing to fight to the death, the Americans would have to destroy these strong points one by one, thus guaranteeing heavy casualties. On February 19, 1945, two Marine divisions, with a third in reserve, landed on the island, taking heavy casualties from the minute they exited their landing craft. The Americans slowly advanced across the island before finally taking total control on March 16, 1945. The Marines lost nearly 7,000 men while virtually the entire Japanese garrison was wiped out, largely because they refused to surrender.<sup>206</sup>

The next and final objective of the offensive was the island of Okinawa in the Ryukyu chain. Located halfway between Formosa (modern day Taiwan) and the most southern island in Japan, Kyushu, it was garrisoned by 130,000 troops under the command of General Mitsuru Ushijima. As was the case on Iwo Jima, a strong system of strongpoints had been constructed;



however, what was potentially even more dangerous was the presence of 450,000 civilians on the island as well. For the last two weeks in March 1945, American naval forces, now joined by a Royal Navy aircraft carrier task group and the USAAF, pounded Honshu and Formosa in an effort to draw Japanese attention away from Okinawa. Between April 1 and April 4, 1945, a combined force of soldiers and Marines landed on the island.

Two days later, out of desperation, the Japanese high command ordered a combined air and naval attack on the allies, utilizing kamikazes (now the favored weapon of the Navy, given the loss of so many experienced pilots in combat) and the giant battleship, the Yamato. While the air attack on April 7, 1945, was moderately successful, resulting in the loss of two U.S. destroyers and a number of support ships, the Yamato, operating with only a small escort force and without any air cover, was set upon by waves of American aircraft, sending her to the bottom that same day. However, as was the case on Iwo Jima, progress was slow; Japanese resistance ended on June 22, 1945.<sup>207</sup>

In the meantime, the American strategic bombing offensive and submarine blockade continued unabated while the allied high command debated their next move. One option of course was to prepare and launch an invasion of the Japanese home islands, an operation that could cost hundreds of thousands of lives, both allied and Japanese. The other option was the employment of the most fearsome weapon ever invented: the atomic bomb. The first bomb had been detonated on July 16, 1945, at Alamogordo, New Mexico. The feasibility of the technology ignited a vigorous debate over its potential deployment. On the one hand, the morality of using such a weapon in light of the damage being done by the strategic air offensive and submarine blockade convinced some that time was on the American side; at some point, the Japanese economy, along with both civilian and military morale was bound to collapse. Others pointed to the millions of Japanese soldiers, many in the home islands, others still fighting in China and Manchuria, who had yet to taste defeat and would be unlikely to surrender in any event, as a rationale for using atomic weapons.<sup>208</sup>

In the end, this second argument carried the day. On August 6, 1945, the first atomic bomb was dropped on the city of Hiroshima, killing nearly 80,000 people and injuring a like number. Still, the Japanese government stubbornly refused to surrender; the decision was made to detonate a second weapon, this time over the city of Nagasaki three days later on August 9, 1945. Although it caused fewer casualties than the first bomb, due to

the local geography (the city was surrounded by hills that absorbed much of the shock), this second demonstration of the American willingness to use atomic weapons was enough to convince the Japanese government that the war was over. The following day, Japan formally offered to surrender; a cease-fire was declared on August 15, 1945, with the final surrender effective on September 2, 1945. The most costly war in world history, both in terms of its human and material costs, was finally over.<sup>209</sup> Still, the end of the Pacific War did not mean an end to war financing. On October 29, 1945, the United States floated its eighth and final loan of the war. While one of the smaller targets (\$9 billion as was the case in 1942), it was the largest oversubscription of the war (233%), raising \$21 billion.

## ENDS

In terms of Mead's model of American political thought, the Jacksonian philosophy seems most applicable in this instance—"the most important goal of the U.S. government in both foreign and domestic policy should be the physical security and economic well-being of the American people... Jacksonians believe that the United States should not seek out foreign quarrels but when other nations start with the United States... there is no substitute for victory." Given his accession to office during the Great Depression, it is by no means surprising that Roosevelt should have concentrated on reviving the American economy (the "New Deal") while seeking to avoid entanglement in the upcoming European conflict, as Wilson had tried to do during World War One. However, much as the sinking of the *Lusitania* with its subsequent loss of American lives galvanized American public opinion in favor of American intervention in the conflict, so too had the Japanese attack on Pearl Harbor forced Roosevelt's hand away from non-intervention into an active leadership role in the struggle against Japan, Germany, and Italy.

The allies achieved their political and grand strategic goals to a degree. In terms of Beaufre's model, the *Ends Critical, Means Decisive strategy*—"when the objectives are vital and military resources are strong, complete victory on the battlefield is feasible. Destroying enemy armed forces may suffice, even if enemy interests are vital, although hostile territory sometimes must be occupied. Unfortunately, if victory is not rapid, costly stalemate may produce decisions "only after a prolonged period of mutual

attrition out of all proportion to the issue at stake” most accurately describes the American approach to the war.

While the United States was certainly not happy to see communism replace fascism, especially in Eastern Europe, at the time, the Soviet Union was deemed the lesser of two equally unappetizing options. In turn, the prospect of long and bloody street fights in Japanese cities against entrenched and highly motivated defenders with nothing to lose, made the decision to drop not one but two atom bombs somewhat easier to accept in hindsight. As for the Axis Powers Beaufre’s *Ends, Critical, Means Decisive* strategy likewise seems very applicable—“when the objectives are vital and military resources are strong, complete victory on the battlefield is feasible. Destroying enemy armed forces may suffice, even if enemy interests are vital, although hostile territory sometimes must be occupied. Unfortunately, if victory is not rapid, costly stalemate may produce decisions “only after a prolonged period of mutual attrition out of all proportion to the issue at stake.”

## WAYS

Many advancements in tactics and military technology had been made before and during the war. Longer range and more lethal weapons such as the proximity fuse for artillery and bazookas and recoilless rifles in an anti-tank role, supplemented by improved communications and fire control systems, were deployed in increasing numbers as the war raged on. These new systems became part of a tactical revolution as well. The German blitzkrieg formations which relied on speed and mobility to avoid enemy strong points, for example, forced defenders to create zones of great depth. These zones, later referred to as “hedgehog” formations, were utilized to mount counterattacks as well. The development of large transport aircraft also meant that airborne troops could be delivered behind enemy lines. However, both the blitzkrieg and airborne operations required fast reinforcement by heavier forces; without this support, these formations could be quickly overwhelmed.

At sea, the aircraft carrier had supplanted the battleship as the capital warship of the future in ways Mahan never could have projected. Still, Corbett’s theory of navies acting as adjuncts to ground operations still held water; while there were a number of large encounters between major fleets, virtually all of these had taken place over the horizon where aircraft proved to be the decisive operational and tactical platform of choice.

The submarine also made its mark, largely as a weapon of economic warfare; the Germans and Americans in particular achieved success in

strangling or nearly strangling British and Japanese commerce. However, the age of the large battleship had not quite been consigned to the dust heap of history; naval gun fire support played a key role, particularly in the island hopping campaigns of the Pacific theater. In the end, however, each island fortress of import had to be taken by ground troops, often under extremely trying and bloody conditions.

In the air, doctrine had evolved in three different directions. First was command of the air, providing the linchpin for the other two doctrines, strategic bombing, and tactical air support of troops on the ground. This doctrine incorporated both offensive and defensive components. Offensively, command of the air allowed for the deployment of strategic bombing campaigns designed to both terrorize civilian populations as well as disrupt the enemy economy. Defensively, strategic bombing was also deemed as an important function of air power as defined by Douhet and Mitchell, in that it prevented Germany from eventually restarting its own strategic bombing campaign. The hope was strategic bombing could achieve a quicker economic result than either the traditional naval blockade, for example.

However, the British and Americans adopted different tactics in their respective bombing campaigns. After suffering tremendous losses early in the war, the British opted for a nighttime only approach resulting in relatively inaccurate strikes against large industrial areas such as the Ruhr. The Americans, by contrast, aided by technology such as the new Norden bombsight, preferred a more precise daylight bombing strategy. The Germans and Russians took an altogether different approach than the Americans and British. Both chose to forgo the construction of large strategic bombing platforms and instead concentrated on the tactical support of troops on the ground, utilizing such aircraft as the Stuka dive bomber.<sup>210</sup> In sum, while Douhet most likely would have seen World War Two as a vindication of his theories, many would disagree, based on the increase in German industrial production between 1943 and 1945.

## MEANS

“The World Wars thus indicate the need for harmonizing economic and military strategy. A nation’s economic resources will influence its military planning, yet, in turn, the military strategy will affect the organization and use of economic resources. Germany staked all on a quick victory. This turned out

to be poor strategy. The West assumed it would have time to mobilize and permitted its forces in being to lag behind those of the foe. This turned out to be successful strategy, but frightful risks were run, and conceivably, much of the cost of the war might have been avoided with another strategy.”<sup>211</sup>

German military and operational strategy did include an economic component; for example, one of the initial goals of Operation Barbarossa before Hitler changed the operational strategy was the seizure of the Ukrainian oil fields. But as noted above, the pre-war policy of a come as you are philosophy to wartime resource management proved to an unwise choice; while the Germans could and did ratchet up economic production, in no way, shape, or form could they hope to match allied industrial capability, particularly as regard to the United States. To that end, it seems plausible to argue that in both world wars, despite the advantage of strategic and operational surprise, the duration of both wars, along with a stubborn refusal of the allies to quit doomed German aspirations from the start. As the U.S. Bombing Strategic Bombing Survey noted

“Germany’s early commitment to the doctrine of the short war was a continuing handicap; neither plans nor state of mind were adjusted to the idea of a long war. Nearly all German sources agree that the hope for a quick victory lasted long after the short war became a long one. Germany’s armament minister Albert Speer, who assumed office in early 1942, rationalized German war production and eliminated the worst inefficiencies in the previous controls. A threefold increase in armament production occurred under his direction but the increase cannot be considered a testament to the efficiency of dictatorship. Rather it suggests the degree of industrial under-mobilization in the earlier years. An excellent case can be made that throughout the war top government management in Germany was not efficient.”<sup>212</sup>

### *Post-War Fiscal Policy*

In terms of fiscal policy, Roosevelt was a unique combination of Hamiltonian and Jeffersonian principles. On the one hand, he was not opposed to utilizing American fiscal and debt policy to the fullest extent possible to meet the needs of the country. On the other hand, he was keenly attuned to his Democratic political base and tried, for example,

**Table 4.8**

<i>Year</i>	<i>Individual income taxes (%)</i>	<i>Other internal revenue (%)</i>	<i>Customs (%)</i>	<i>Social insurance income taxes (%)</i>	<i>Excise taxes (%)</i>	<i>Estate taxes (%)</i>	<i>Other (%)</i>	<i>Total receipts (%)</i>
1940	16%	57%	5%	25%	27%	5%	-35%	100%
1941	17%	52%	4%	22%	26%	4%	-25%	100%
1942	22%	40%	2%	16%	21%	3%	-3%	100%
1943	26%	29%	1%	12%	15%	2%	15%	100%
1944	42%	17%	1%	7%	9%	1%	22%	100%
1945	41%	22%	1%	8%	13%	1%	14%	100%
Average	25%	39%	3%	16%	20%	3%	-5%	100%

**Table 4.9**

<i>Year</i>	<i>Department of the Army (%)</i>	<i>Department of the Navy (%)</i>	<i>Veterans compensation (%)</i>	<i>Interest on the public debt (%)</i>	<i>Other (%)</i>	<i>Total outlays (%)</i>
1940	10%	10%	5%	11%	64%	100%
1941	30%	17%	3%	8%	41%	100%
1942	42%	25%	1%	4%	28%	100%
1943	53%	26%	1%	2%	18%	100%
1944	52%	28%	1%	3%	17%	100%
1945	51%	31%	1%	14%	3%	100%
Average	37%	21%	2%	6%	33%	100%

**Table 4.10**

<i>Year</i>	<i>Total receipts (\$)</i>	<i>Total expenditures (\$)</i>	<i>Surplus/Deficit (\$)</i>
1940	\$6,879,000	\$9,055,269	(\$2,176,269)
1941	\$9,202,000	\$13,254,948	(\$4,052,948)
1942	\$15,104,000	\$34,036,861	(\$18,932,861)
1943	\$25,097,000	\$79,867,714	(\$54,770,714)
1944	\$47,818,000	\$94,986,002	(\$47,168,002)
1945	\$45,159,000	\$98,302,937	(\$53,143,937)
Total	\$149,259,000	\$329,503,731	(\$180,244,731)
Average	\$24,876,500	\$54,917,289	(\$30,040,789)

to eliminate loopholes in the tax code that seemed on the surface anyway to benefit wealthy financial interests. Still, he remained committed to financing the war largely through both individual and corporate income taxes, a task his administration largely succeeded at. By wars end, these taxes provided approximately 63% of federal government revenues, with two thirds of this coming from income taxes. Social security spending remained relatively flat in dollar terms but declined sharply as a percentage of revenue between 1941 and 1945. From an expenditure standpoint, the armed forces, as would be expected, accounted for approximately 82% of federal government spending by wars end. As a result, the United States, as was the case with the other combatants, was running a budget deficit, in this case, in the mid \$50 billion range by 1945. The key difference of course was that once hostilities ceased, the United States did not require a complete economic and financial rebuild as that required in Europe and Asia; as such, post-war reconstruction programs, such as the 1948–1952 Marshall Plan, were utilized as a way to avoid the mistakes of the Versailles Treaty that resulted in the rise of fascist political movements in Germany and Italy (Tables 4.8, 4.9, and 4.10).<sup>213,214,215</sup>

### *Post-War Monetary Policy*

In terms of monetary policy, as Meltzer noted

“Subservience to the Treasury (by the Federal Reserve) during the recovery and in the war that followed, limited the effect of the legislation (the Banking Act of 1935) for a time. The Treasury took control of international economic policy. Both (the Federal Reserve Bank of) New York and the Board had a limited role. The Board gained nominal control of open market operations and the power to approve appointments of reserve bank presidents. The new powers changed the System’s internal organization and operations in the 1930s. Major effects on policy had to wait for the post-war years.”<sup>216</sup>

As for the Japanese

“Japan’s reserves of gold and dollars exceeded \$200 million in 1941, enough to buy for example, four years worth of U.S. oil at pre-freeze shipment rates, yet it was rendered useless. Thereafter, the Japanese piled \$60 million into new gold and \$15 million into the useless reserve until it suspended mining of precious metals in 1944...At the end of the war, although the economy

Table 4.11

#	Commencement date	Conclusion date	Target amount (\$ billion)	% of total	Actual amount (\$ billions)	% of total	% oversubscribed	Total advertising (\$ million)	% of total
1	11/30/1942	12/23/1942	\$9.0	10%	\$13.0	8%	144%	\$0.0	0%
2	4/12/1943	5/1/1943	\$13.0	14%	\$18.0	12%	138%	\$4.7	3%
3	10/8/1943	11/2/1943	\$15.0	17%	\$19.0	12%	127%	\$23.4	16%
4	1/18/1944	2/15/1944	\$14.0	16%	\$16.7	11%	119%	\$25.0	17%
5	6/12/1944	7/8/1944	\$16.0	18%	\$20.6	13%	129%	\$42.7	29%
6	11/20/1944	12/16/1944	\$0.0	0%	\$21.6	14%	0%	\$11.0	7%
7	5/14/1945	9/1/1945	\$14.0	16%	\$26.0	17%	186%	\$42.0	28%
8	10/29/1945	12/8/1945	\$9.0	10%	\$21.0	13%	23%	\$0.0	0%
Total			\$90.0	100%	\$155.9	100%	173%	\$148.8	100%



**Table 4.12**

<i>Year</i>	<i>Interest on the public debt (\$)</i>	<i>Total debt (\$)</i>	<i>Interest as a % of total debt</i>
1940	\$1,040,936	\$5,786,550	18.0%
1941	\$1,110,693	\$5,459,106	20.3%
1942	\$1,260,085	\$9,440,385	13.3%
1943	\$1,808,160	\$14,203,248	12.7%
1944	\$2,608,980	\$15,906,299	16.4%
1945	\$4,148,997	\$12,844,496	32.3%
Average	\$1,996,309	\$10,606,681	18.9%

was in a shambles, the government of Japan was awash in gold amounting to twice its hoard in 1941. After the surrender, the gold and silver in the Bank of Japan and other government vaults was sequestered by MacArthur's occupation forces. As to Japan's frozen dollars, they were never returned."<sup>217</sup>

### *Post-War Debt Policy*

The Roosevelt and Truman administrations enjoyed an extraordinary level of success in their debt management policies. In all, nearly \$156 billion was raised versus a targeted amount of \$90 billion or an average oversubscription rate of 173 %. The eight loan campaigns were assisted in great part through both paid and donated advertisement expenditures of nearly \$150 million (Tables 4.11, 4.12).<sup>218,219</sup>

### *Post-War Mobilization Policy*

In terms of Koistinen's model, looking back on the history of economic mobilization before and during World War Two, it seems somewhat amazing the United States managed to mobilize at all. The constant establishing and disestablishing of civilian and military mobilization agencies in rapid succession was bewildering to say the least; the one constant was that FDR kept a firm grip the levers of political, strategic, operational, economic, and financial policy. Still, the United States was much better prepared prior to World War Two than had been the case in World War One. Most of the senior military officers had served in combat or support positions during the first conflict. Moreover, the Army had spent the interwar years developing mobilization plans under the guidance of the various

OASW, as discussed below. The military also gained a deep appreciation for the role of private industry within the context of economic mobilization. As part of the mobilization planning process, the War Department and the Army had surveyed individual industry sectors that in many cases had already developed production schedules in the event of a conflict. In turn, industry was willing and able to work with the military since based on their experience in World War One they now had an intimate knowledge of the Army, its culture, and procedures.<sup>220</sup>

The Navy, by contrast, was less well prepared than the Army prior to the conflict. In contrast to World War One, when the Navy had been the beneficiary of an aggressive shipbuilding program while the Army stagnated, the roles had been reversed by 1939. Between the constraints placed on naval construction as a result of treaty obligations and a general lack of urgency regarding logistics on the part of the Bureau of Supply and Accounts, which had this responsibility, the naval establishment had fallen behind its Army counterparts. Part of this had to do with the fact that in the National Defense Act of 1920, the War Department was given the statutory authority to oversee mobilization and procurement. Although the OASW attempted to involve the Navy through its participation in the ANMB, these efforts met with little success.<sup>221</sup>

## NOTES

1. Ernest and Trevor Dupuy, *The Encyclopedia of Military History: from 3,500 B.C. to the Present*, (New York: Harper and Row, 1970), 1016–1017.
2. Dupuy and Dupuy, *Encyclopedia of Military History*, 1017–1018.
3. James Schelsinger, *The Political Economy of National Security*, (London: Atlantic Books, 1960), 61–62.
4. Schelsinger, *The Political Economy of National Security*, 61–62.
5. GlobalSecurity.org, *War Plan Rainbow*, <http://www.globalsecurity.org/military/ops/war-plan-rainbow.htm>, accessed June 1st, 2014.
6. *Ibid*, accessed June 1st, 2014.
7. James Lacey, *Shaping Grand Strategy: Policy, Diplomacy, and War*, (Cambridge, U.K.: Cambridge University Press, 2011), 182–187; Steven T. Ross. “U.S. War Plans: 1938-1945”, (Boulder, CO: Lynne Rienner Publishers, 2002), 55.

8. John Keegan, *The Second World War*, (New York: Penguin Books, 1989), 60–63, 105–110; Richard Overy, *The Road to War: The Origins of World War Two*, (London: Random House UK, 2009), 50–51.
9. Keegan, *The Second World War*, 60–63; Overy, *The Road to War: The Origins of World War Two*, 2009, 50.
10. Library of Congress. U.S. Statutes at Large, 66th Congress, 2nd sess., 759–811, [http://www.constitution.org/uslaw/sal/041\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/041_statutes_at_large.pdf), accessed June 24th, 2014; U.S. Army Center for Military History, *Between World Wars*, 57–58, <http://www.history.army.mil/books/AMH-V2/AMH%20V2/chapter2.htm>, accessed June 1st, 2014.
11. Richard Gardiner, *Conway's All the World's Fighting Ships*, (Annapolis, MD: United States Naval Institute Press, 1980), 220; Keegan, *The Second World War*, 105–110; Overy, *The Road to War*, 50–51.
12. Dupuy and Dupuy, *Encyclopedia of Military History*, 1014–1026.
13. Wilbur D. Jones, *Arming the Eagle: A History of U.S. Weapons Acquisition Since 1775*, (Fort Belvoir, VA: Defense Systems Management College Press, 1999), 229–235; Allan R. Millett, *Assault from the Sea: The Development of Amphibious Warfare between the Wars—The American, British, and Japanese Experiences* in Williamson R. Murray, Allan R. Millett, eds., *Military Innovation in the Interwar Period* (Cambridge University Press, 1996), 83; Library of Congress. U.S. Statutes at Large, 74th Congress, 3rd sess., 401–402, [http://www.constitution.org/uslaw/sal/052\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/052_statutes_at_large.pdf), accessed June 24th, 2014.
14. Julius A. Furer, Department of the Navy, *Administration of the Navy Department in World War Two*, 13, <http://www.ibiblio.org/hyperwar/USN/Admin-Hist/USN-Admin/USN-Admin-1.html>, accessed June 24th, 2014.
15. Wesley F. Craven and James L. Cate, Air Force Historical Studies Office, 29, <http://www.afhso.af.mil/shared/media/document/AFD-101105-005.pdf>, accessed June 24th, 2014; Library of Congress. U.S. Statutes at Large, 69th Congress, 1st sess., 780–789, [http://www.constitution.org/uslaw/sal/044\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/044_statutes_at_large.pdf), accessed June 24th, 2014.
16. Keegan, *The Second World War*, 59, 89. Franklin D'Olier, et al., *The United States Strategic Bombing Survey, September 30th, 1945*, 1–3,

- <http://www.ibiblio.org/hyperwar/AAF/USSBS/ETO-Summary.html#tgsp>, accessed June 1st, 2014.
17. Jones, *Arming the Eagle*, 304.
  18. U.S. Business Cycle Expansions and Contractions, (Boston, MA; National Bureau of Economic Research), <http://www.nber.org/cycles.html>, accessed June 1st, 2014.
  19. Michael Porter, *Competitive Strategy: Techniques for Analyzing Industries and Competitors*, (New York: The Free Press, 1980), 88; Paul Koistinen. *Planning War, Pursuing Peace: The Political Economy of American Warfare, 1920-1939*, (Lawrence, KS: University Press of Kansas, 1998), 73–75.
  20. D'Olier, et al., *The United States Strategic Bombing Survey*, 2; Keegan, *The Second World War*, 104–105, 135, 210–213, 215; Hugh Rockoff, *America's Economic Way of War: War and the U.S. Economy from the Spanish-American War to the Persian Gulf War*, (Cambridge, U.K.: Cambridge University Press, 2012), 161–162.
  21. D'Olier, et al., *The United States Strategic Bombing Survey*, 2; Keegan, *The Second World War*, 104–105, 135, 210–213, 215.
  22. Keegan, *The Second World War*, 103.
  23. D'Olier, et al., *The United States Strategic Bombing Survey*, 2; Keegan, *The Second World War*, 104–105, 135, 210–213, 215.
  24. Edward S. Miller. *Bankrupting the Enemy: The U.S. Financial Siege of Japan before Pearl Harbor*, (Annapolis, MD: Naval Institute Press 2007), 18.
  25. Miller. *Bankrupting the Enemy*, 242.
  26. United States. Bureau of the Census. "Volume 2" in *Historical Statistics of the United States : Colonial Times to 1970* (1975). <https://fraser.stlouisfed.org/title/?id=237#15808>, accessed on January 6, 2015.
  27. Robert D. Hormats, *The Price of Liberty: Paying for America's Wars*, (New York: Henry Holt and Co., 2007), 137–138; Library of Congress. U.S. Statutes at Large, 74th Cong., 1st sess., 684–722, 1014–1027, [http://www.constitution.org/uslaw/sal/049\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/049_statutes_at_large.pdf), accessed June 24th, 2014.
  28. Hormats, *The Price of Liberty*, 138; Library of Congress. U.S. Statutes at Large, 74th Cong., 1st sess., 1648–1756, [http://www.constitution.org/uslaw/sal/049\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/049_statutes_at_large.pdf), accessed June 24th, 2014.

29. United States. Bureau of the Census. "Volume 2" in *Historical Statistics of the United States : Colonial Times to 1970* (1975). <https://fraser.stlouisfed.org/title/?id=237#!5808>, accessed on January 6, 2015.
30. United States. Bureau of the Census. "Volume 2" in *Historical Statistics of the United States : Colonial Times to 1970* (1975). <https://fraser.stlouisfed.org/title/?id=237#!5808>, accessed on January 6, 2015.
31. United States. Bureau of the Census. "Volume 2" in *Historical Statistics of the United States : Colonial Times to 1970* (1975). <https://fraser.stlouisfed.org/title/?id=237#!5808>, accessed on January 6, 2015.
32. Alan Meltzer, *A History of the Federal Reserve*, Volume One: 1913–1951, (Chicago: University of Chicago Press, 2003), 418, 573; Keegan, *The Second World War*, 218–219; Rockoff, *America's Economic Way of War*, 162–164.
33. Meltzer, *A History of the Federal Reserve*, 463–465, 470, 534, 538, 574, 625; Library of Congress. U.S. Statutes at Large, 69th Cong., 1st sess., 780–789, [http://www.constitution.org/uslaw/sal/044\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/044_statutes_at_large.pdf), accessed June 24th, 2014.
34. Meltzer, *A History of the Federal Reserve*, 550, 596, 598.
35. Hormats, *The Price of Liberty*, 137, Meltzer, *A History of the Federal Reserve*, 484, 500; Frederick A. Bradford, The Banking Act of 1935, *American Economic Review*, 25, no. 4, 661–672; Library of Congress. U.S. Statutes at Large, 74th Cong., 1st sess., 684–722, [http://www.constitution.org/uslaw/sal/049\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/049_statutes_at_large.pdf), accessed June 24th, 2014.
36. Meltzer, *A History of the Federal Reserve*, 538–545.
37. Yale University, Lillian Goldman Law Library, *Laws of War*, <http://avalon.law.yale.edu/imt/munich1.asp>, accessed August 17th, 2014.
38. For those readers not familiar with the interaction between interest rates or the rate of return, market prices and yields, the answer is essentially a mathematical exercise. The equation is simply yield ( $y$ ) = price ( $p$ )/rate of return ( $r$ ) on the specific financial instrument. Therefore if the price decreases, the yield increases and vice versa; Meltzer, *A History of the Federal Reserve*, 545–546.
39. United States. Bureau of the Census. "Volume 2" in *Historical Statistics of the United States : Colonial Times to 1970* (1975).

- <https://fraser.stlouisfed.org/title/?id=237#!5808>, accessed on January 6, 2015.
40. Department of State, *The Washington Naval Conference, 1921-1922*, <https://history.state.gov/milestones/1921-1936/naval-conference>, accessed June 1st, 2014.
  41. William Mitchell, *Winged Defense: The Development and Possibilities of Modern Air Power, Economic and Military*, (Mineola, New York: Dover Publications, 1988).
  42. Department of State, *The Washington Naval Conference, 1921-1922*, <https://history.state.gov/milestones/1921-1936/naval-conference>, accessed June 1st, 2014.
  43. Paul Koistinen, *Planning War, Pursuing Peace*, (Lawrence, KS: University Press of Kansas, 1998), 5–10.
  44. Koistinen. *Planning War, Pursuing Peace*, 12–13; National Defense University, *History of the Industrial College of the Armed Forces*, <http://www.ndu.edu/cs/about/history.htm>, accessed June 1st, 2014.
  45. Koistinen. *Planning War, Pursuing Peace*, 11, 115, 124.
  46. Ibid, 42–43, 46–48, 51, 55–56, 58, 60–62, 64–65, 67–68.
  47. Ibid, 42–43, 46–48, 51, 55–56, 58, 60–62, 64–65, 67–68.
  48. Koistinen. *Planning War, Pursuing Peace*, 253–304; *Report of the Special Committee on Investigation of the Munitions Industry (The Nye Report)*, U.S. Congress, Senate, 74th Congress, 2nd sess., February 24, 1936, pp. 3–13, <https://www.mtholyoke.edu/acad/intrel/nye.htm>, accessed June 1st, 2014; U.S. Congress, Senate, [http://www.senate.gov/artandhistory/history/minute/merchants\\_of\\_death.htm](http://www.senate.gov/artandhistory/history/minute/merchants_of_death.htm).
  49. The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/ws/index.php?pid=15573>, accessed June 20th, 2014.
  50. Jones, *Arming the Eagle*, 282; The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/ws/index.php?pid=15683>, accessed June 20th, 2014.
  51. Koistinen. *Planning War, Pursuing Peace*, 15; The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/ws/index.php?pid=15808>, accessed June 20th, 2014; Library of Congress. U.S. Statutes at Large, 76th Cong., 1st sess., 561–565, [http://www.constitution.org/uslaw/sal/053\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/053_statutes_at_large.pdf), accessed June 24th, 2014.
  52. Koistinen. *Planning War, Pursuing Peace*, 20–26.

53. Jones, *Arming the Eagle*, 283–284.
54. Jones, *Arming the Eagle*, 283–284.
55. Jones, *Arming the Eagle*, 252–253; Koistinen. *Planning War, Pursuing Peace*, 15–16; Rockoff, *America's Economic Way of War*, 155; The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/ws/?pid=15843>, accessed June 20th, 2014.
56. U.S. Military Academy, Department of History, <http://www.west-point.edu/history/SiteAssets/SitePages/World%20War%20II%20Europe/WWIIEurope01.gif>, accessed June 1st, 2014.
57. U.S. Military Academy, Department of History, <http://www.west-point.edu/history/SiteAssets/SitePages/World%20War%20II%20Europe/WWIIEurope02.gif>, accessed June 1st, 2014.
58. Dupuy and Dupuy, *Encyclopedia of Military History*, 1027–1028.
59. U.S. Military Academy, Department of History, <http://www.west-point.edu/history/SiteAssets/SitePages/World%20War%20II%20Europe/WWIIEurope06.gif>, accessed June 1st, 2014.
60. *Ibid*, 1054–1057.
61. *Ibid*, 1054–1057.
62. Meltzer, *A History of the Federal Reserve*, 550–551.
63. Jones, *Arming the Eagle*, 285; The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/ws/index.php?pid=15831>, accessed June 20th, 2014.
64. Keegan, *The Second World War*, 107.
65. United States. Department of the Treasury. “Annual Report of the Secretary of the Treasury on the State of the Finances for the Fiscal Year Ended June 30, 1939,” *Annual Report of the Secretary of the Treasury on the State of the Finances* (Fiscal Year Ended June 30, 1939). <https://fraser.stlouisfed.org/title/?id=194#!5585>, accessed on January 20, 2015.
66. Board of Governors of the Federal Reserve System (U.S.) , 1935- and Federal Reserve Board , 1914-1935. “1939,” *Annual Report of the Board of Governors of the Federal Reserve System* (1939). <https://fraser.stlouisfed.org/title/?id=117#!2497>, accessed on January 20, 2015.
67. Elizabeth Rosenberger and Zachary Goldman, “Economic Statecraft: American Economic Power and the New Face of Financial Warfare”, (Washington D.C.: Center for a New American Security),

- <http://www.cnas.org/economic-statecraft-american-economic-power#.VYIjQFIYGeg>, June 17th, 2015.
68. Hormats, *The Price of Liberty*, 140; The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/ws/index.php?pid=15856>, accessed June 20th, 2014.
  69. U.S. Military Academy, Department of History, <http://www.west-point.edu/history/SiteAssets/SitePages/World%20War%20II%20Europe/WWIIEurope10.gif>, accessed June 1st, 2014.
  70. Dupuy and Dupuy, *Encyclopedia of Military History*, 1057–1058.
  71. Ibid, 1059.
  72. Ibid, 1059.
  73. Ibid, 1060–1061.
  74. Ibid, 1062–1063.
  75. Ibid, 1064–1066.
  76. The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/ws/index.php?pid=15959>, accessed June 20th, 2014.
  77. Wesley F. Craven and James .L. Cate, Office of Air Force History, *The Army Air Forces in World War Two, Volume VI*, <http://www.ibiblio.org/hyperwar/AAF/VI/AAF-VI-8.html>, 265; accessed June 20th, 2014. Robert Frank Futrell, *Ideas, Concepts, and Doctrines: A History of Basic Thinking in the United States Air Force, 1907-1964*, (Maxwell Air Force Base, AL: Air University Press, 1980), 102; Jones, *Arming the Eagle*, 287–291; The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/ws/index.php?pid=15856>, accessed June 20th, 2014.
  78. Rockoff, *America's Economic Way of War*, 166–167.
  79. Jones, *Arming the Eagle*, 254–255; Stetson Conn, *Highlights of Mobilization, World War Two, 1938-1942, March 10th, 1959*, <http://www.history.army.mil/documents/WWII/ww2mob.htm>, accessed June 20th, 2014; Paul Koistinen. *The Arsenal of War: American Political Economy, 1940-1945*, (Lawrence, KS: University Press of Kansas, 2004), 119.
  80. Hormats, *The Price of Liberty*, 139; Rockoff, *America's Economic Way of War*, 156; Library of Congress. U.S. Statutes at Large, 76th Cong, 1st sess., 513–515, [http://www.constitution.org/uslaw/sal/054\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/054_statutes_at_large.pdf), accessed June 24th, 2014.



81. Koistinen. *The Arsenal of War*, 40–41.
82. Ibid, 44–45.
83. Library of Congress. U.S. Statutes at Large, 76th Cong., 3rd sess., 712–714, [http://www.constitution.org/uslaw/sal/054\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/054_statutes_at_large.pdf), accessed June 24th, 2014.
84. Department of State, *Lend-Lease and Military Aid to the Allies in the Early Years of World War II*, <http://history.state.gov/milestones/1937-1945/lend-lease>, accessed June 18th, 2014; Naval Heritage and History Command, *Destroyers for Bases Agreement, 2 September 1940*, <http://www.history.navy.mil/faqs/faq59-24.htm>, November 3rd, 1999, accessed June 18th, 2014.
85. Rockoff, *America's Economic Way of War*, 156; Library of Congress. U.S. Statutes at Large, 76th Cong., 3rd sess., 885, [http://www.constitution.org/uslaw/sal/054\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/054_statutes_at_large.pdf), accessed June 24th, 2014.
86. Library of Congress. U.S. Statutes at Large, 76th Cong., 3rd sess., 974–1018, [http://www.constitution.org/uslaw/sal/054\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/054_statutes_at_large.pdf), accessed June 24th, 2014., accessed June 24th, 2014.
87. United States. Department of the Treasury. “Annual Report of the Secretary of the Treasury on the State of the Finances for the Fiscal Year Ended June 30, 1940,” *Annual Report of the Secretary of the Treasury on the State of the Finances* (Fiscal Year Ended June 30, 1940). <https://fraser.stlouisfed.org/title/?id=194#!5586>, accessed on January 22, 2015.
88. Board of Governors of the Federal Reserve System (U.S.) , 1935- and Federal Reserve Board , 1914-1935. “1940,” *Annual Report of the Board of Governors of the Federal Reserve System* (1940). <https://fraser.stlouisfed.org/title/?id=117#!2498>, accessed on January 22, 2015.
89. U.S. Military Academy, Department of History, <http://www.west-point.edu/history/SiteAssets/SitePages/World%20War%20II%20Europe/WWIIEurope19.gif>, accessed June 1st, 2014.
90. U.S. Military Academy, Department of History, <http://www.west-point.edu/history/SiteAssets/SitePages/World%20War%20II%20Europe/WWIIEurope24.gif>, accessed June 1st, 2014.
91. Hormats, *The Price of Liberty*, 140; The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/ws/index.php?pid=16081>, accessed June 20th, 2014.
92. Jones, *Arming the Eagle*, 253; Koistinen. *The Arsenal of War*, 76; The American Presidency Project, University of California, Santa

- Barbara, <http://www.presidency.ucsb.edu/ws/?pid=16114>, accessed June 20th, 2014.
93. Department of State, *Lend-Lease and Military Aid to the Allies in the Early Years of World War II*, <https://history.state.gov/milestones/1937-1945/lend-lease>, accessed June 1st, 2014.
  94. Jones, *Arming the Eagle*, 285; Hormats, *The Price of Liberty*, 145; Meltzer, *A History of the Federal Reserve*, 547–548; Rockoff, *America's Economic Way of War*, 157.
  95. Paul Koistinen. *Arsenal of World War Two*, (Lawrence, KS: University Press of Kansas, 2004), 73, 96–98; The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/ws/index.php?pid=16099>, accessed June 20th, 2014.
  96. Lacey, *Shaping Grand Strategy*, 182–187; Franklin Delano Roosevelt, *Joint Board Estimates of Overall Production*, 1–17, <http://docs.fdrlibrary.marist.edu/psf/box1/t04a18.html>.
  97. The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/ws/index.php?pid=16151>, accessed June 20th, 2014.
  98. The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/ws/index.php?pid=16151>, accessed June 20th, 2014.
  99. Koistinen. *Arsenal of World War Two*, 74–91, 94–95, 98–99; The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/ws/index.php?pid=16164>, accessed June 20th, 2014.
  100. Roy G. and Gladys C. Blakey, The Revenue Act of 1941, *The American Economic Review* Vol. 31, No. 4 (Dec., 1941),. 809–822; Hormats, *The Price of Liberty*, 147; Library of Congress. U.S. Statutes at Large, 77th Cong., 1st sess., 687–727, [http://www.constitution.org/uslaw/sal/054\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/054_statutes_at_large.pdf), accessed June 24th, 2014.
  101. Dupuy and Dupuy, *Encyclopedia of Military History*, 1123–1129; Miller, *Bankrupting the Enemy*, 191; Library of Congress. U.S. Statutes at Large, 77th Cong., 1st sess., 795–796, [http://www.constitution.org/uslaw/sal/055\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/055_statutes_at_large.pdf), accessed June 24th, 2014; Library of Congress. U.S. Statutes at Large, 77th Cong., 1st sess., 796–797, [http://www.constitution.org/uslaw/sal/055\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/055_statutes_at_large.pdf), accessed June 24th,

2014. The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/ws/index.php?pid=16148&st=Franklin+D.+Roosevelt&st1=>, accessed June 20th, 2014.
102. Dupuy and Dupuy, *Encyclopedia of Military History*, 1123–1129; *Bankrupting the Enemy*, 191; Library of Congress. U.S. Statutes at Large, 77th Cong., 1st sess., 795–796, [http://www.constitution.org/uslaw/sal/055\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/055_statutes_at_large.pdf), accessed June 24th, 2014; Library of Congress. U.S. Statutes at Large, 77th Cong., 1st sess., 796–797, [http://www.constitution.org/uslaw/sal/055\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/055_statutes_at_large.pdf), accessed June 24th, 2014. The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/ws/index.php?pid=16148&st=Franklin+D.+Roosevelt&st1=>, accessed June 20th, 2014.
103. Dupuy and Dupuy, *Encyclopedia of Military History*, 1123–1129; *Bankrupting the Enemy*, 191; Library of Congress. U.S. Statutes at Large, 77th Cong., 1st sess., 795–796, [http://www.constitution.org/uslaw/sal/055\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/055_statutes_at_large.pdf), accessed June 24th, 2014; Library of Congress. U.S. Statutes at Large, 77th Cong., 1st sess., 796–797, [http://www.constitution.org/uslaw/sal/055\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/055_statutes_at_large.pdf), accessed June 24th, 2014. The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/ws/index.php?pid=16148&st=Franklin+D.+Roosevelt&st1=>, accessed June 20th, 2014.
104. Dupuy and Dupuy, *Encyclopedia of Military History*, 1130–1132.
105. U.S. Military Academy, Department of History, <http://www.westpoint.edu/history/SiteAssets/SitePages/World%20War%20II%20Pacific/WWIIAsia04.gif>, accessed June 1st, 2014.
106. Jones, *Arming the Eagle*, 262; Rockoff, *America's Economic Way of War*, 157; Library of Congress. U.S. Statutes at Large, 77th Con., 1st sess., 838–840, [http://www.constitution.org/uslaw/sal/055\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/055_statutes_at_large.pdf), accessed June 24th, 2014.
107. Board of Governors of the Federal Reserve System (United States), 1935- and Federal Reserve Board, 1914-1935. “1941,” *Annual Report of the Board of Governors of the Federal Reserve System* (1941). <https://fraser.stlouisfed.org/title/?id=117#!2499>, accessed on January 22, 2015.
108. United States. Department of the Treasury. “Annual Report of the Secretary of the Treasury on the State of the Finances for the Fiscal

- Year Ended June 30, 1941,” *Annual Report of the Secretary of the Treasury on the State of the Finances* (Fiscal Year Ended June 30, 1941). <https://fraser.stlouisfed.org/title/?id=194#!5587>, accessed on January 22, 2015.
109. Keegan, *The Second World War*, 313–314; Andrew Krepinivech and Barry Watts, *Regaining Strategic Competence*, Center for Strategic and Budgetary Assessments”, 2009, file:///C:/Users/tmmeagher/Downloads/2009.09.01-Regaining-Strategic-Competence%20(2).pdf; Lacey, *Shaping Grand Strategy*, 191–192; Maurice Matoloff and Edwin M. Snell, *Strategic Planning for Coalition Warfare*, <http://www.ibiblio.org/hyperwar/USA/USA-WD-Strategic1/USA-WD-Strategic1-5.html>, 97–119, accessed June 18th, 2014.
  110. Keegan, *The Second World War*, 313–314; Krepinivech and Watts, *Regaining Strategic Competence*, 2009, file:///C:/Users/tmmeagher/Downloads/2009.09.01-Regaining-Strategic-Competence%20(2).pdf; Lacey, *Shaping Grand Strategy*, 191–192; Matoloff and Snell, *Strategic Planning for Coalition Warfare*, 97–119, <http://www.ibiblio.org/hyperwar/USA/USA-WD-Strategic1/USA-WD-Strategic1-5.html>, accessed June 18th, 2014.
  111. Dupuy and Dupuy, *Encyclopedia of Military History*, 1082–1085.
  112. Ibid, *Encyclopedia of Military History*, 1082–1085.
  113. Ibid, *Encyclopedia of Military History*, 1082–1085.
  114. Jones, *Arming the Eagle*, 254; Koistinen. *Arsenal of World War Two*, 96, 195–198, 201; The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/ws/index.php?pid=16297>, accessed June 20th, 2014.
  115. Koistinen. *The Arsenal of War*, 271–272.
  116. Ibid, 108–114, 237.
  117. Jones, *Arming the Eagle*, 279–280; Koistinen. *Arsenal of World War Two*, 219, 221, 227, 229–230; The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/ws/index.php?pid=16227>, accessed June 20th, 2014.
  118. Lacey, *Shaping Grand Strategy*, 191–192; Matoloff and Snell, *Strategic Planning for Coalition Warfare*, 217–222, <http://www.ibiblio.org/hyperwar/USA/USA-WD-Strategic1/USA-WD-Strategic1-5.html>, accessed June 18th, 2014.

119. U.S. Military Academy, Department of History, <http://www.west-point.edu/history/SiteAssets/SitePages/World%20War%20II%20Pacific/WWIIAsia15.gif>, accessed June 1st, 2014.
120. Dupuy and Dupuy, *Encyclopedia of Military History*, 1135, 1138.
121. Dupuy and Dupuy, *Encyclopedia of Military History*, 1135, 1138.
122. Ibid, 1132–1133.
123. Ibid, 1138.
124. United States. Department of the Treasury. “Annual Report of the Secretary of the Treasury on the State of the Finances for the Fiscal Year Ended June 30, 1942,” *Annual Report of the Secretary of the Treasury on the State of the Finances* (Fiscal Year Ended June 30, 1942). <https://fraser.stlouisfed.org/title/?id=194#!5588>, accessed on January 22, 2015.
125. Ibid, 1145.
126. U.S. Military Academy, Department of History, <http://www.west-point.edu/history/SiteAssets/SitePages/World%20War%20II%20Pacific/WWIIAsia15.gif>, accessed June 1st, 2014.
127. Ibid, 1146.
128. Ibid, 1147–1148.
129. Ibid, 1147–1148.
130. Ibid, 1147–1148.
131. Ibid, 1147–1148.
132. U.S. Military Academy, Department of History, <http://www.west-point.edu/history/SiteAssets/SitePages/World%20War%20II%20Pacific/ww2%20asia%20map%2017.jpg>, accessed June 1st, 2014.
133. Koistinen. *Arsenal of World War Two*, 268–273; The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/ws/?pid=16268>, accessed June 20th, 2014.
134. Alan Gropman. *Mobilizing U.S. Industry in World War Two: Myth and Reality* (Darby, PA: DIANE Publishing Co.), 1997, 69–70, [http://books.google.com/books?id=72jSjkaKbUYC&pg=PA69&clpg=PA69&dq=Production+Requirements+Plan+in+WWII&source=bl&ots=7P5NC1s4oQ&sig=KBLaZG0cvRP74U7jkPwUpqpl0oY&chl=en&sa=X&ei=wK4kVK6\\_GYmNyAThg4L4BQ&ved=0CDcQ6AEwAw#v=onepage&q=Production%20Requirements%20Plan%20in%20WWII&f=false](http://books.google.com/books?id=72jSjkaKbUYC&pg=PA69&clpg=PA69&dq=Production+Requirements+Plan+in+WWII&source=bl&ots=7P5NC1s4oQ&sig=KBLaZG0cvRP74U7jkPwUpqpl0oY&chl=en&sa=X&ei=wK4kVK6_GYmNyAThg4L4BQ&ved=0CDcQ6AEwAw#v=onepage&q=Production%20Requirements%20Plan%20in%20WWII&f=false), accessed June 20th, 2014. Koistinen. *Arsenal of World War Two*, 204–207; John Landon-Lane and Hugh Rockoff, “The Paradox of Planning: The Controlled Materials Plan of World of World War Two”, [http://www.nber.org/papers/h0083.pdf?new\\_window=1](http://www.nber.org/papers/h0083.pdf?new_window=1), May 1996, 1–59.

135. Lacey, *Shaping Grand Strategy*, 195–198.
136. The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/ws/index.php?pid=16171>, accessed June 20th, 2014.
137. Hormats, *The Price of Liberty*, 156–157; Library of Congress. U.S. Statutes at Large, 77th Cong., 2nd sess., 798–986, [http://www.constitution.org/uslaw/sal/056\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/056_statutes_at_large.pdf), accessed June 24th, 2014.
138. Dupuy and Dupuy, *Encyclopedia of Military History*, 1085–1087; Matoloff and Snell, *Strategic Planning for Coalition Warfare*, 97–119, <http://www.ibiblio.org/hyperwar/USA/USA-WD-Strategic1/USA-WD-Strategic1-13.html>, accessed June 18th, 2014.
139. Dupuy and Dupuy, *Encyclopedia of Military History*, 1087–1090.
140. Dupuy and Dupuy, *Encyclopedia of Military History*, 1087–1090.
141. Dupuy and Dupuy, *Encyclopedia of Military History*, 1082; Lacey, *Shaping Grand Strategy*, 195–200.
142. United States. Department of the Treasury. “Annual Report of the Secretary of the Treasury on the State of the Finances for the Fiscal Year Ended June 30, 1942,” *Annual Report of the Secretary of the Treasury on the State of the Finances* (Fiscal Year Ended June 30, 1942). <https://fraser.stlouisfed.org/title/?id=194#!5588>, accessed on January 22, 2015.
143. Board of Governors of the Federal Reserve System (United States), 1935- and Federal Reserve Board, 1914-1935. “1942,” *Annual Report of the Board of Governors of the Federal Reserve System* (1942). <https://fraser.stlouisfed.org/title/?id=117#!2500>, accessed on January 22, 2015.
144. Ibid, 1153–1154.
145. Ibid, 1153–1154.
146. Dupuy and Dupuy, *Encyclopedia of Military History*, 1090; Department of State, *The Casablanca Conference, 1943*, <https://history.state.gov/milestones/1937-1945/casablanca>, accessed June 1st, 2014.
147. Dupuy and Dupuy, *Encyclopedia of Military History*, 1156–1157, 1161.
148. U.S. Military Academy, Department of History, <http://www.west-point.edu/history/SiteAssets/SitePages/World%20War%20II%20Pacific/ww2%20asia%20map%2021.jpg>, accessed June 1st, 2014.

149. Dupuy and Dupuy, *Encyclopedia of Military History*, 1156–1157, 1161.
150. Dupuy and Dupuy, *Encyclopedia of Military History*, 1093–1095.
151. The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/ws/index.php?pid=16375>, accessed June 20th, 2014.
152. The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/ws/index.php?pid=16386>, accessed June 20th, 2014.
153. For a detailed analysis of this dispute see Koistinen, *Arsenal of World War Two*, 209–213.
154. Jones, *Arming the Eagle*, 254; Koistinen. *Arsenal of World War Two*, 192, 361–369; The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/ws/index.php?pid=16405>, accessed June 20th, 2014.
155. Hormats, *The Price of Liberty*, 168; Duke University, *Brief History of World War Two Advertising Campaigns War Loans and Bonds*, <http://library.duke.edu/digitalcollections/adaccess/guide/wwii/bonds-loans/#first>, accessed June 1st, 2014.
156. Hormats, *The Price of Liberty*, 158–160; Library of Congress. U.S. Statutes at Large, 78th Cong., 1st sess., 126–149, [http://www.constitution.org/uslaw/sal/057\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/057_statutes_at_large.pdf), accessed June 24th, 2014.
157. Hormats, *The Price of Liberty*, 158–160; Library of Congress. U.S. Statutes at Large, 78th Cong., 1st sess., 126–149, [http://www.constitution.org/uslaw/sal/057\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/057_statutes_at_large.pdf), accessed June 24th, 2014.
158. Koistinen, *Arsenal of World War Two*, 229.
159. Dupuy and Dupuy, *Encyclopedia of Military History*, 1090, 1104–1105; U.S. Army Center for Military History, *The Trident Conference: New Patterns*, <http://www.history.army.mil/books/wwii/sp1943-44/chapter6.htm>, accessed June 1st, 2014.
160. Dupuy and Dupuy, *Encyclopedia of Military History*, 1090, 1104–1105; U.S. Army Center for Military History, *The Trident Conference: New Patterns*, <http://www.history.army.mil/books/wwii/sp1943-44/chapter6.htm>, accessed June 1st, 2014.
161. U.S. Military Academy, Department of History, <http://www.west-point.edu/history/SiteAssets/SitePages/World%20War%20II%20Europe/WWIIEurope47.gif>, accessed June 1st, 2014.

162. Dupuy and Dupuy, *Encyclopedia of Military History*, 1090–1092.
163. Ibid, 1092–1093.
164. Ibid, 1095–1100.
165. Hormats, *The Price of Liberty*, 168; Duke University, <http://library.duke.edu/digitalcollections/adaccess/guide/wwii/bonds-loans/#first>, accessed June 1st, 2014.
166. Koistinen. *Arsenal of World War Two*, 365; 13, *Federal Records of World War Two, Volume Two, Military Records*, 13, <http://www.ibiblio.org/hyperwar/ATO/FRWW2-II/FRWW2-1.html>, accessed June 1st, 2014.
167. Koistinen. *Arsenal of World War Two*, 266–268; The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/ws/index.php?pid=16317>, accessed June 20th, 2014.
168. U.S. Military Academy, Department of History, <http://www.west-point.edu/history/SiteAssets/SitePages/World%20War%20II%20Pacific/ww2%20asia%20map%2021.jpg>, accessed June 1st, 2014.
169. Dupuy and Dupuy, *Encyclopedia of Military History*, 1164.
170. Ibid, 1100.
171. United States. Department of the Treasury. “Annual Report of the Secretary of the Treasury on the State of the Finances for the Fiscal Year Ended June 30, 1943,” *Annual Report of the Secretary of the Treasury on the State of the Finances* (Fiscal Year Ended June 30, 1943). <https://fraser.stlouisfed.org/title/?id=194#!5589>, accessed on January 22, 2015.
172. Dupuy and Dupuy, *Encyclopedia of Military History*, 1103.
173. U.S. Military Academy, Department of History, <http://www.west-point.edu/history/SiteAssets/SitePages/World%20War%20II%20Europe/WWIIEurope51.gif>, accessed June 1st, 2014.
174. Hormats, *The Price of Liberty*, 168; Duke University, *Brief History of World War Two Advertising Campaigns War Loans and Bonds*, <http://library.duke.edu/digitalcollections/adaccess/guide/wwii/bonds-loans/#first>, accessed June 1st, 2014.
175. Hormats, *The Price of Liberty*, 161–162; Meltzer, *A History of the Federal Reserve*, 589; Library of Congress. U.S. Statutes at Large, 78th, 2nd sess., 21–94, [http://www.constitution.org/uslaw/sal/056\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/056_statutes_at_large.pdf), accessed June 24th, 2014; The American Presidency Project, University of California, Santa Barbara,



- <http://www.presidency.ucsb.edu/ws/index.php?pid=16424>, accessed June 20th, 2014.
176. Hormats, *The Price of Liberty*, 168; Duke University, *Brief History of World War Two Advertising Campaigns War Loans and Bonds*, <http://library.duke.edu/digitalcollections/adaccess/guide/wwii/bonds-loans/#first>, accessed June 1st, 2014.
177. Board of Governors of the Federal Reserve System (United States), 1935- and Federal Reserve Board, 1914-1935. "1943," *Annual Report of the Board of Governors of the Federal Reserve System (1943)*. <https://fraser.stlouisfed.org/title/?id=117#12501>, accessed on January 22, 2015.
178. U.S. Military Academy, Department of History, <http://www.west-point.edu/history/SiteAssets/SitePages/World%20War%20II%20Europe/WWIIEurope53.gif>, accessed June 1st, 2014.
179. Dupuy and Dupuy, *Encyclopedia of Military History*, 1104–1105.
180. Ibid, 1106–1107.
181. Ibid, 1107–1111.
182. Ibid, 1107–1111.
183. U.S. Military Academy, Department of History, <http://www.west-point.edu/history/SiteAssets/SitePages/World%20War%20II%20Europe/WWIIEurope66.gif>, accessed June 1st, 2014.
184. The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/ws/index.php?pid=16588>, accessed June 20th, 2014.
185. Benjamin J. Cohen, Bretton Woods System, *Routledge Encyclopedia of International Political Economy*, <http://www.polsci.ucsb.edu/faculty/cohen/inpress/bretton.html>, accessed June 1st, 2014; International Monetary Fund, *Cooperation and Reconstruction, 1944-1971*, <http://www.imf.org/external/about/histcoop.htm>, accessed June 1st, 2014; The World Bank, *History of the World Bank*, <http://www.worldbank.org/en/about/history>, accessed June 1st, 2014.
186. Cohen, Bretton Woods System, *Routledge Encyclopedia of International Political Economy*, <http://www.polsci.ucsb.edu/faculty/cohen/inpress/bretton.html>, accessed June 1st, 2014; International Monetary Fund, *Cooperation and Reconstruction, 1944-1971*, <http://www.imf.org/external/about/histcoop.htm>, accessed June 1st, 2014; The World Bank, *History of the World Bank*,

- <http://www.worldbank.org/en/about/history>, accessed June 1st, 2014.
187. Cohen, Bretton Woods System, *Routledge Encyclopedia of International Political Economy*, <http://www.polsci.ucsb.edu/faculty/cohen/inpress/bretton.html>, accessed June 1st, 2014; International Monetary Fund, *Cooperation and Reconstruction, 1944-1971*, <http://www.imf.org/external/about/histcoop.htm>, accessed June 1st, 2014; The World Bank, *History of the World Bank*, <http://www.worldbank.org/en/about/history>, accessed June 1st, 2014.
188. Cohen, Bretton Woods System, *Routledge Encyclopedia of International Political Economy*, <http://www.polsci.ucsb.edu/faculty/cohen/inpress/bretton.html>, accessed June 1st, 2014; International Monetary Fund, *Cooperation and Reconstruction, 1944-1971*, <http://www.imf.org/external/about/histcoop.htm>, accessed June 1st, 2014; The World Bank, *History of the World Bank*, <http://www.worldbank.org/en/about/history>, accessed June 1st, 2014.
189. Cohen, Bretton Woods System, *Routledge Encyclopedia of International Political Economy*, <http://www.polsci.ucsb.edu/faculty/cohen/inpress/bretton.html>, accessed June 1st, 2014; International Monetary Fund, *Cooperation and Reconstruction, 1944-1971*, <http://www.imf.org/external/about/histcoop.htm>, accessed June 1st, 2014; The World Bank, *History of the World Bank*, <http://www.worldbank.org/en/about/history>, accessed June 1st, 2014.
190. U.S. Military Academy, Department of History, <http://www.west-point.edu/history/SiteAssets/SitePages/World%20War%20II%20Pacific/ww2%20asia%20map%2026.jpg>, accessed June 1st, 2014.
191. Dupuy and Dupuy, *Encyclopedia of Military History*, 1177, 1182.
192. Dupuy and Dupuy, *Encyclopedia of Military History*, 1177, 1182.
193. Dupuy and Dupuy, *Encyclopedia of Military History*, 1177, 1182.
194. U.S. Military Academy, Department of History, <http://www.west-point.edu/history/SiteAssets/SitePages/World%20War%20II%20Europe/WWIIEurope72.gif> accessed June 1st, 2014.
195. U.S. Military Academy, Department of History, <http://www.west-point.edu/history/SiteAssets/SitePages/World%20War%20II%20Pacific/ww2%20asia%20map%2029.jpg>, accessed June 1st, 2014.

196. United States. Department of the Treasury. "Annual Report of the Secretary of the Treasury on the State of the Finances for the Fiscal Year Ended June 30, 1944," *Annual Report of the Secretary of the Treasury on the State of the Finances* (Fiscal Year Ended June 30, 1944). <https://fraser.stlouisfed.org/title/?id=194#!5590>, accessed on January 23, 2015.
197. Board of Governors of the Federal Reserve System (United States), 1935- and Federal Reserve Board, 1914-1935. "1944," *Annual Report of the Board of Governors of the Federal Reserve System* (1944). <https://fraser.stlouisfed.org/title/?id=117#!2502>, accessed on January 23, 2015.
198. The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/ws/index.php?pid=16584>, accessed June 20th, 2014.
199. The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/ws/index.php?pid=16595>, accessed June 20th, 2014.
200. U.S. Military Academy, Department of History, <http://www.west-point.edu/history/SiteAssets/SitePages/World%20War%20II%20Europe/WWIIEurope82.gif>, accessed June 1st, 2014.
201. Dupuy and Dupuy, *Encyclopedia of Military History*, 1118–1122.
202. Dupuy and Dupuy, *Encyclopedia of Military History*, 1183–1184; The History Channel, *FDR Dies*, <http://www.history.com/this-day-in-history/fdr-dies>, accessed January 24th, 2015.
203. Hormats, *The Price of Liberty*, 168; Duke University, *Brief History of World War Two Advertising Campaigns War Loans and Bonds*, <http://library.duke.edu/digitalcollections/adaccess/guide/wwii/bonds-loans/#first>, accessed June 1st, 2014.
204. Dupuy and Dupuy, *Encyclopedia of Military History*, 1188–1190.
205. U.S. Military Academy, Department of History, <http://www.west-point.edu/history/SiteAssets/SitePages/World%20War%20II%20Pacific/ww2%20asia%20map%2047.jpg>, accessed June 1st, 2014.
206. Dupuy and Dupuy, *Encyclopedia of Military History*, 1191–1192.
207. Dupuy and Dupuy, *Encyclopedia of Military History*, 1192–1195.
208. Dupuy and Dupuy, *Encyclopedia of Military History*, 1196–1198.
209. Dupuy and Dupuy, *Encyclopedia of Military History*, 1196–1198.
210. Dupuy and Dupuy, *Encyclopedia of Military History*, 1017–1026; Koistinen. *Planning War, Pursuing Peace*, xvii–xviii, 177–178, 195, 209–210, 218. 316.

211. Schelsinger, *The Political Economy of National Security*, 63.
212. D'Olier, et al., *The United States Strategic Bombing Survey*, 2.
213. United States. Bureau of the Census. "Volume 2" in *Historical Statistics of the United States : Colonial Times to 1970* (1975). <https://fraser.stlouisfed.org/title/?id=237#!5808>, accessed on January 6, 2015.
214. United States. Bureau of the Census. "Volume 2" in *Historical Statistics of the United States : Colonial Times to 1970* (1975). <https://fraser.stlouisfed.org/title/?id=237#!5808>, accessed on January 6, 2015.
215. United States. Bureau of the Census. "Volume 2" in *Historical Statistics of the United States : Colonial Times to 1970* (1975). <https://fraser.stlouisfed.org/title/?id=237#!5808>, accessed on January 6, 2015.
216. Meltzer, *A History of the Federal Reserve*, 576.
217. Miller, *Bankrupting the Enemy*, 241.
218. Duke University, *Brief History of World War Two Advertising Campaigns War Loans and Bonds*, <http://library.duke.edu/digitalcollections/adaccess/guide/wwii/bonds-loans/#first>, accessed June 1st, 2014.
219. United States. Bureau of the Census. "Volume 2" in *Historical Statistics of the United States : Colonial Times to 1970* (1975). <https://fraser.stlouisfed.org/title/?id=237#!5808>, accessed on January 6, 2015.
220. Koistinen. *Planning War, Pursuing Peace*, 34.
221. Koistinen. *Planning War, Pursuing Peace*, 43–44; 106–114.

## Communism Contained: Resourcing the Korean War

### ENDS

#### *Pre-War Political Culture*

Having succeeded to the presidency following Roosevelt's untimely death, Harry Truman presided over the successful conclusion to the largest conflagration the world had ever witnessed. Upon his re-election by a comfortable margin in 1948, it is not surprising, therefore, that Americans and their leader should look to domestic concerns following the end of the war.<sup>1</sup> Truman alluded to this in his Annual Message to the Congress on January 5, 1949, when he said among his other goals

“Our first great opportunity is to protect our economy against the evils of” boom and bust. One of the most important factors in maintaining prosperity is the Government’s fiscal policy. At this time, it is essential not only that the Federal budget be balanced, but also that there be a substantial surplus to reduce inflationary pressures, and to permit a sizable reduction in the national debt, which now stands at \$252 billion. I recommend, therefore, that the Congress enact new tax legislation to bring in an additional \$4 billion of Government revenue. This should come principally from additional corporate taxes. A portion should come from revised estate and gift taxes. Consideration should be given to raising personal income rates in the middle and upper brackets.”<sup>2</sup>

The biggest fear of American policymakers following the end of World War Two related to the detonation of an atomic weapon by the Soviet Union on September 23, 1949. For the first time since the advent of the War of 1812, the United States was faced by the prospect of facing an enemy with possessing not only conventional military superiority (at least in Europe) but also the capability to destroy the homeland from a distance. The Truman administration was also concerned by the possibility of a conventional conflict with Communist China. In terms of foreign policy then, Truman focused on the rebuilding of Germany and Japan through the auspices of the Marshall Plan while reorienting European policy away from one of détente with the Soviets (who now possessed a considerable conventional advantage on North Atlantic Treaty Organization [NATO] forces in addition to their supposed atomic equality with the United States) to one of containment as recommended by State Department diplomat George Kennan in an anonymous article published in *Foreign Affairs Magazine* in July, 1947.<sup>3</sup>

North Korean, and later Chinese, intervention on the Korea peninsula was almost guaranteed therefore when on January 12, 1950, at the National Press Club in Washington, Secretary of State Dean Acheson laid out U.S. grand strategy in the Far East as consisting of a “defensive perimeter” as running through the Ryuku islands (Okinawa), Japan, and the Philippines, effectively leaving South Korea and Taiwan without the protection of American military forces. There were two primary goals of Acheson’s speech:

“First, the Truman administration was trying to implement a new China policy after the victory of the Communists in the Chinese Civil War. By late 1949, Truman and Acheson had decided that the People’s Republic of China (PRC) would launch an invasion of Taiwan in the near future to destroy the last remnants of Jiang Jieshi’s government. The president announced his determination to remain uninvolved in the Chinese Civil War on 5 January 1950, explaining that while the United States would continue economic aid to Taiwan, US military aid and advice would cease. Such an approach, Truman insisted, proved that the United States had no predatory designs on Chinese territory and sought no specific privileges or military bases. A second goal of Acheson’s speech was to build support for U.S. policy in South Korea. Since the fall of 1947, the United States had been pursuing a policy there that sought to eliminate its commitment to military protection, but without ensuring Communist conquest of the ROK either as a result of internal political subversion or external military invasion. This explains the

U.S. decision to postpone withdrawal of its occupation forces until late June 1949, defying strenuous objections from U.S. military leaders.”<sup>4</sup>

The grand strategy of the administration, first promulgated in 1947, came to be known as the Truman Doctrine. The new doctrine “effectively reoriented U.S. foreign policy, away from its usual stance of withdrawal from regional conflicts not directly involving the United States, to one of possible intervention in far-away conflicts.” It complemented earlier work by American strategists such as the National Security Act of 1947 (NSC-47), which established the first National Security Council (NSC) whose members included “included the President, Vice President, Secretary of State, Secretary of Defense, and other members (such as the Director of the Central Intelligence Agency), who met at the White House to discuss both long-term problems and more immediate national security crises.”<sup>5</sup> However, American grand strategy was upended on September 24, 1949, when the Soviet Union exploded its first atomic bomb. Suddenly, the strategy of relying on atomic weapons to counter Soviet conventional advantages went by the wayside.<sup>6</sup> As a consequence, concepts such as deterrence acquired new meaning.

By contrast, Chinese grand strategy was entirely aimed at East Asia. Despite the defeat and eventual withdrawal of the Nationalist forces to Taiwan in 1949, following the end of the Civil War, Beijing (the capital was renamed from Peking that same year), still did not have complete control over major swaths of the Chinese mainland. Moreover, with the assistance of the U.S. Navy, the Nationalists also occupied a number of offshore islands, which could be used to launch a counter offensive against the Communist state. To that end, the Chinese government focused first and foremost on eliminating the Nationalist military presence both on and offshore while ignoring political consolidation and economic reconstruction. In other words, the new government wanted domestic order to be restored before looking to transform Chinese society according to Mao Tse Tung’s ideal model of political, economic, and military affairs.

On the foreign policy front, China had several problems to overcome. First was the avowed hostility of the United States, as evidenced by continued support of the Nationalists on Taiwan. Second was the outright economic warfare waged by the United States and its western allies against China following the end of the Civil War in 1949, discussed in

more detail below. The Soviet Union proved to be a different issue altogether. Although the two nominally shared the same Marxist–Leninist political philosophy, they implemented its tenets in entirely different ways. The Soviets, given their industrial economy, focused on the “urban” proletariat, those workers in the large cities who toil in the capitalist factories to make ends meet. Mao realized, given the agrarian nature of the Chinese economy, that this model would not suffice for his purposes. Rather, he concentrated on politicizing the rural citizenry across China. Over time, the Soviets and Chinese would jostle for leadership of the worldwide Marxist–Leninist movement, particularly in the Third World; still in 1949, the two would sign a treaty of friendship and military alliance informally spelling out the nature of the relationship.<sup>7</sup>

Related to this development was the breakup of the old colonial empires of Britain, Germany, Italy, and Japan, although the French would attempt to hold on to their possessions, first in Southeast Asia and then North Africa; eventually, Paris would be forced to relinquish these territories as well. In conjunction with these events, both the Soviet Union and China, initially in tandem, took advantage of the political vacuums created by working to construct a network of Communist movements, particularly in Asia, Latin, and South America, to conduct so called “wars of national liberation”. The United States responded by adopting a policy of financial and military assistance to allies perceived to be under threat from these Communist movements.

## WAYS

### *Pre-War Military Strategy*

Following the end of World War Two, the most important strategic development in the post-war era was obviously the emergence of nuclear power, both as a weapon and a means of propulsion at sea. A key derivative of this trend was the militarization of space in terms of launching reconnaissance satellites; now presidents, premiers, and senior military commanders had a near 24×7 vision of a potential battlefield. These developments were offset by some degree by attempts to limit the spread of nuclear weapon by arms control advocates, much as earlier proponents of weapons limitations had attempted to the expansion of navies following the carnage of World War One.<sup>8</sup>

Still, the deployment of such systems impacted the natures of the wars in Korea and later Vietnam; in other words, was it worth to employ



nuclear weapons in what was essentially a Clausewitzian style limited war context? War then was viewed on two stages: A strategic level whereby the United States and the Soviet Union engaged in a general nuclear exchange resulting in the destruction of both societies, and a conventional level by which nuclear weapons, while available for potential utilization, most likely would not be deployed.<sup>9</sup>

The Chinese, at the beginning of the Korean War, were seriously deficient in a number of important military capabilities. First, despite possessing one of the world's most numerous militaries, the Peoples Liberation Army (PLA) was largely an infantry-based force equipped mainly with small arms supplemented by obsolete armor and artillery systems. The same was true of the Peoples Liberation Army Air Force (PLAAF) and Peoples Liberation Army Navy (PLAN). Coupled with an economy decimated after decades of war, and opposed by the West's strongest military and naval power which dominated the western Pacific and East Asian theaters of operations, the Chinese communists had little hope for success should war break out. Mao himself anticipated that in the event of an American attack, the United States would launch an aerial assault on northeast China (Manchuria—the heart of China's industrial base), as well as major cities on the east coast. The Nationalists would then follow with amphibious assaults on the coast, supported by the U.S. Navy, both from Taiwan and the coastal islands. The French presence in Indochina on China's southern border likewise posed yet another threat to Beijing.<sup>10</sup>

Mao, however, also believed that the Americans and Nationalist possessed insufficient manpower, and were too low in morale anyway to mount a long term campaign against the Chinese mainland, especially in light of the tremendous distances involved in resupplying such a force. Moreover, under the terms of the Soviet–Chinese friendship treaty of 1949, he believed the Russians would come to his aid in the event of any American military action, a poor assumption if there ever was one (the Soviets supplied aircraft and allegedly some pilots as well during the Korean War but no ground troops or naval forces). To Mao's way of thinking, should the Americans contemplate military action against China, his forces could hold their own. What he did not count on was an apparently unilateral invasion of South Korea by their North Korean neighbors, although more recent research indicates that the Chinese were informed to some degree of North Korean intentions.<sup>11</sup>

From the American standpoint, the most important post-war change was illustrated by the significant revamp of the military's force structure.

The National Security Act of 1947 established the NSC and Central Intelligence Agency (CIA), as well as merging the Department of War (now renamed the Department of the Army) with the Department of the Navy to form the National Military Establishment (later renamed the Department of Defense—DOD), headed by the Secretary of Defense. In addition, the disciples of Douhet and Mitchell finally realized their dream of an independent air force when

“The United States Air Force was charged to organize, train and equip air forces for air operations including joint operations; to gain and maintain general air superiority; to establish local air superiority where and as required; to develop a strategic air force and conduct strategic air reconnaissance operations; to provide airlift and support for airborne operations; to furnish air support to land and naval forces including support of occupation forces; and to provide air transport for the armed forces except as provided by the Navy for its own use.”<sup>12</sup>

All three services would now report to the Secretary of Defense; in addition to more clearly defining roles and missions, the Act also set the stage for monumental budget battles beginning in the 1950s and continuing on until today.

## MEANS

### *Pre-War Economic Culture*

Prior to the beginning of the Korean War, the United States, and China were going in opposite directions economically. The United States suffered three short-term economic down cycles. Unemployment increased to 7.9 % during this time as well. However, the Treasury remained concerned about the potential negative implications on budget surpluses and debt repayment relating the 1947 Greek–Turkish Aid bill and the Marshall Plan (Table 5.1).<sup>13</sup>

The same could not be said of China:

“After decades of wars, civil and international, the nation’s economy was at the edge of total collapse. Although no one could accurately assess the scale of China’s economic difficulties, it took little imagination to sense the severity of China’s problems. In 1949, China’s industrial production was only thirty percent of the recorded peak, the yield of heavy industry declined by seventy percent, light industry by 30%, and agriculture by

Table 5.1

<i>Peak date</i>	<i>Trough date</i>	<i>Peak to trough months</i>
February 1945	October 1945	8
November 1948	October 1949	11
July 1953	May 1954	10
Average		10

24.5%. The annual production of coal was a mere 3,243 tons, iron and steel only 150,000 tons, grain 113.2 million tons, and cotton 445,000 tons. The transportation system was hardly functional: more than 5,000 miles of railroads were crippled; 3,200 bridges and 200 tunnels were severely damaged; about 4,000 miles of vehicle roads were barely usable; airport and boat transport were close to zero. Severe floods had swept a large part of the country that year, and over 40 million people were victimized by this natural calamity. The physical damage of the nation's infrastructure resulted in runaway inflation and severe disruption of trade, both domestic and international. Undoubtedly, the CCP (Chinese Communist Party) had to reconstruct the shattered economy, bring inflation under control, and help the recovery of industry and commerce, which all became life-and-death issues."<sup>14</sup>

The enormity of this task must have seemed overwhelming to the new government but matters took a turn for the worse, when in late December 1949, the U.S. National Security Council, following the defeat of the Chinese Nationalists earlier in the year, formally proclaimed a new policy targeting the Chinese economy, the goal being to force the Peoples Republic to focus on her domestic problems and stymie any further attempts to export Communist revolutionary ideology, specifically throughout the rest of Asia, and the free world more generally

"The United States should, as a security measure, seek to prevent the Union of Soviet Socialist Republics (USSR), its European satellites, and North Korea, from obtaining from abroad through China supplies of strategic

materials and equipment which are currently denied them by the United States and its European allies through direct channels. The United States should use every effort to prevent the Chinese Communists from obtaining from non-Soviet sources of materials and equipment of direct military utility (1A items). The United States should, on the other hand, permit exports to China of 1B items within normal civilian use and under controls, which can be applied restrictively if it becomes necessary to do so in the national interest, and should place no obstacles in the way of trade with China in non-strategic commodities. The United States should seek the support and concurrence of its principal European allies in these policies. The United States should not extend governmental economic assistance to Communist China or encourage private investment in China.”<sup>15</sup>

### *Pre-War Fiscal Policy*

In the 1949 Annual Report of the Secretary of the Treasury, Secretary John W. Snyder and his colleagues devoted significant time to a discussion of the new post-war international financial institutions that had been established including the International Monetary Fund (IMF), the International Bank for Reconstruction and Development (IBRD), and the Export-Import (Ex-Im) Bank among others. He noted

“Throughout the year 1948, the United States continued to provide foreign countries with substantial assistance bot to relieve immediate economic distress and longer run reconstruction efforts. The year was marked by the inauguration of the European Recovery Program, in which United States assistance became part of a joint program of cooperation with participating European countries. By the end of the year, aid rendered under that program, mainly in the form of grants, totaled about 1.9 billion dollars of the 5.5 billion dollars of aid rendered by all agencies to foreign countries in 1948.”<sup>16</sup>

By this time, individual income taxes and other internal revenue had overtaken customs receipts as the major source of federal government revenue, both on a raw number and percentage basis, followed by excise and social security taxes. From an expenditure standpoint, two figures stand out. The first is the tremendous decrease in military spending between 1946 and 1947, as the United States rapidly drew down its force structure following the end of World War Two. The other important change related to the legislative changes mandated by the National Security Act of 1947,

specifically the designation of the Air Force as an independent service. For the first time, spending on air capabilities would be broken out separately, and although initially relatively small in both dollars and percentage of spending, in time, the Air Force would come command to a significant part of the overall defense budget, in large part due to its general devotion to technology, and more specifically to the advent of nuclear weapons. Overall, the United States quickly rebuilt a budget surplus by 1947 (Tables 5.2, 5.3, and 5.4).<sup>17,18,19,20</sup>

After the war, the Treasury continued to use budget surpluses to repay outstanding war related debt. However, the Treasury remained concerned about the potential negative implications on these surpluses and repayments relating the 1947 Greek–Turkish Aid bill and the Marshall Plan. Moreover, Truman faced the prospect of convincing Americans to pay higher taxes in order to support these policies. The president favored a pay as you go taxation policy and was convinced, on the outbreak of war, the conflict should be largely financed by taxation. As part of the Revenue Act of 1950, which covered most of the financing of the war, income, corporate, and excise taxes were raised. Congress also passed the Excess Profits Tax Act of 1950, increasing the top corporate rate from 45% to 47% and establishing an excess profits tax of 30% through June 30, 1953.<sup>21</sup>

### *Pre-War Monetary Policy*

Meanwhile, on the monetary policy front, despite pent up demand resulting in pegged interest rates, inflation remained relatively well contained

**Table 5.2**

<i>Year</i>	<i>Individual income taxes (%)</i>	<i>Other internal revenue (%)</i>	<i>Customs (%)</i>	<i>Social insurance income taxes (%)</i>	<i>Excise taxes (%)</i>	<i>Estate taxes (%)</i>	<i>Federal reserve earnings (%)</i>	<i>Other (%)</i>	<i>Total receipts (%)</i>
1946	37%	24%	1%	7%	15%	2%	0%	14%	100%
1947	41%	26%	1%	8%	16%	2%	0%	6%	100%
1948	43%	27%	1%	9%	16%	2%	0%	2%	100%
1949	37%	30%	1%	9%	18%	2%	0%	3%	100%
Average	40%	27%	1%	8%	17%	2%	0%	6%	100%

**Table 5.3**

<i>Year</i>	<i>Department of the Army (%)</i>	<i>Department of the Navy (%)</i>	<i>Department of the Air Force (%)</i>	<i>Defense wide (%)</i>	<i>Veterans compensation (%)</i>	<i>Interest on the public debt (%)</i>	<i>Other (%)</i>	<i>Total outlays (%)</i>
1946	46%	25%	0%	0%	2%	8%	19%	100%
1947	24%	14%	0%	0%	5%	13%	44%	100%
1948	10%	12%	8%	1%	6%	16%	47%	100%
1949	9%	10%	9%	1%	5%	14%	53%	100%
Average	22%	15%	4%	0%	5%	12%	41%	100%

**Table 5.4**

<i>Year</i>	<i>Total receipts (\$)</i>	<i>Total outlays (\$)</i>	<i>Surplus/Deficit (\$)</i>
1946	\$43,537,000	\$60,826,042	(\$17,289,042)
1947	\$43,531,000	\$38,923,379	\$4,607,621
1948	\$45,357,000	\$32,955,232	\$12,401,768
1949	\$41,576,000	\$39,474,413	\$2,101,587
Total	\$174,001,000	\$172,179,066	\$1,821,934
Average	\$43,500,250	\$43,044,767	\$455,484

during 1947 and 1948, ranging anywhere from 4% to 6% annually while growth in the money supply likewise slowed. One of the reasons for this relatively mild rate of inflation and reduced rate of monetary growth were Treasury operations, the goal being to reduce the amount of debt in the banking system. To this end, the Treasury used the proceeds from the 1946 Victory Loan and the 1947 and 1948 surpluses to reduce debt. Prices were also stable or falling for one of the few times following an American armed conflict while wage and price controls constrained wartime price increases. The amount of resources devoted to the military during the war also created numerous shortages of consumer related goods. Finally, as had been the case in previous conflicts, the U.S. government resorted to the printing press to help finance the war. Despite this, it took several years for the effect of these policies to work their way through in terms of increasing inflation.<sup>22</sup>

Meanwhile, the feud between the Treasury and Federal Reserve continued unabated. On March 2, 1949, at its regular Federal Open Market Committee (FOMC), the new Secretary of the Treasury John W. Snyder rejected a proposal from Federal Reserve Chairman Thomas B. McCabe to raise short-term certificate interest rates by 0.125 %. He also cautioned the Federal Reserve about allowing Treasury bill rates to rise since this would cause certificate rates to rise as well. Finally, he informed McCabe that the Treasury would not commit to retiring debt held by the reserve banks, preferring instead retain all of its option in the matter of open market operations, an opinion the Federal Reserve took as a threat to its own independence.<sup>23</sup>

In September 1949, Senate hearings were convened by a subcommittee of the Joint Economic Committee to discuss fiscal, monetary, and debt policies, including the contentious Treasury–Federal Reserve relationship, under the direction of Senator Paul Douglas (D-IL). Snyder denied the

appearance of a conflict between the Treasury and Federal Reserve, in particular, the unwillingness on the part of the Treasury to support interest rate adjustments. It should be noted that the Federal Reserve participants, McCabe, Marriner Eccles, the vice chairman of the bank and its former chairman, and Allan Sproul, the president of the New York Federal Reserve Bank, offered different viewpoints to the Senate subcommittee. McCabe was willing to accommodate the Treasury while Sproul came out most emphatically for the independence of the Federal Reserve, asking Congress to issue a directive requiring the Treasury to issue debt within an appropriate rate structure (in other words, one established by the Federal Reserve); Eccles fell somewhere in between.<sup>24</sup>

In addition to questions regarding the relationship between the two most important financial agencies in the U.S. government, a debate also arose as to whether there was a legal obligation to prevent government bonds from trading below par; Snyder denied any such obligation, arguing this was a policy related decision subject to change and not a commitment, legal or otherwise. Still, Eccles argued that the current system of fixed interest rates restricted the Federal Reserve from carrying out its statutory obligations to manage the money supply, essentially leaving the Treasury in charge of open market operations. In the end, the subcommittee adopted the Federal Reserve position by opposing the subordination of monetary policy to debt policy, setting the stage for the final independence of the Federal Reserve from Treasury control, even though the bank had technically been independent since its establishment in 1913.<sup>25</sup>

In the Annual Report for 1949, dated June 30, 1950, McCabe noted

“Moderate economic recession followed by upturn in this country and abatement of inflationary trends in other economies of the free world marked the year 1949, covered by this Thirty-sixth Annual Report of the Board of Governors of the Federal Reserve System. These changes led to more flexible use of domestic monetary and credit measures in the United States and to widespread readjustment of foreign exchange rates as a further step toward reestablishing a freer flow of international trade and convertibility of currencies.

In this country, by the beginning of 1949—following three years of near-capacity production with generally rising prices—supplies of many types of goods exceeded demand at prevailing prices. Inventory accumulation in anticipation of rising prices and capital expenditures by business began to decline. Recessionary tendencies set in, and during the first half of the



**Table 5.5**

<i>Year</i>	<i>Interest on the public debt (\$)</i>	<i>Total debt (\$)</i>	<i>Interest as a % of total debt</i>
1946	\$4,721,958	\$269,422,099	1.8%
1947	\$4,957,922	\$258,286,383	1.9%
1948	\$5,211,102	\$252,292,236	2.1%
1949	\$5,339,396	\$252,770,860	2.1%
Average	\$5,057,595	\$258,192,895	2.0%

year prices of farm products and foods followed a downward trend begun in 1948. Prices of other products also declined, particularly in the case of some industrial materials; industrial production and employment fell off, and there was a moderate reduction in bank loans.”<sup>26</sup>

### *Pre-War Debt Policy*

On the debt front, during the Korean War, the Treasury sold non-marketable Series E, Series F, and G savings bonds to both large and small investors. However, while the public could buy and redeem these financial instruments on demand, large investors, such as banks, were not allowed to hold them (Table 5.5).<sup>27</sup>

## CHRONOLOGY OF POLITICAL, STRATEGIC/OPERATIONAL, AND RESOURCE MANAGEMENT EVENTS

### *1950*

Following the end of the war, a number of new national security related initiatives had been launched. The National Security Act of 1947, discussed in more detail above, established the first NSC. On April 4, 1949, the North Atlantic Treaty Organization (NATO), of twelve nations (the United States, Great Britain, France, Belgium, the Netherlands, Denmark, Italy, Luxembourg, Norway, Iceland, Canada, and Portugal), was established, later to be countered by the founding of the Soviet dominated Warsaw Pact in 1955. Meanwhile, by 1949, the Communist Chinese had driven the Nationalists from the mainland to Taiwan, establishing the PRC in October 1949, although the victory was not quite complete, given the continued presence of Chiang Kai Shek sympathizers on the mainland and

the Nationalist units still holding a number of the offshore islands. Still, on January 3, 1950, the Soviet Union agreed to lend the PRC 300 million rubles over five years at a token 1% interest rate, although Mao exhibited a truly Jeffersonian Republican view in that he believed that “loans were debts and debts needed to be paid back.”<sup>28</sup>

As discussed above, on January 12, 1950, Secretary of State Acheson delivered a speech at the National Press Club outlining American strategy in the Far East noting

“In the first place, the defeat and the disarmament of Japan has placed upon the United States the necessity of assuming the military defense of Japan so long as that is required, both in the interest of our security and in the interests of the security of the entire Pacific area and, in all honor, in the interest of Japanese security. We have American— and there are Australian—troops in Japan. I am not in a position to speak for the Australians, but I can assure you that there is no intention of any sort of abandoning or weakening the defenses of Japan and that whatever arrangements are to be made either through permanent settlement or otherwise, that defense must and shall be maintained.

This defensive perimeter runs along the Aleutians to Japan and then goes to the Ryukyus. We hold important defense positions in the Ryukyu Islands, and those we will continue to hold. In the interest of the population of the Ryukyu Islands, we will at an appropriate time offer to hold these islands under trusteeship of the United Nations. But they are essential parts of the defensive perimeter of the Pacific, and they must and will be held.”<sup>30</sup>

In other words, the Republic of Korea remained outside of this defensive perimeter (Fig. 5.1).<sup>29</sup>

On June 25, 1950, seven infantry divisions, a tank brigade, and supporting elements crossed the border between North and South Korea. Advancing in four columns, the North Koreans easily overwhelmed the four South Korean divisions deployed on the border. In one of the more incredible diplomatic blunders of the war, the Soviet Union had boycotted the United Nations (UN) Security Council, protesting the presence of the Nationalist Chinese government representatives as the official government of China, instead of their Communist counterparts. The following day Truman issued an initial statement on the Korean situation.



“I conferred Sunday evening with the Secretaries of State and Defense, their senior advisers, and the Joint Chiefs of Staff about the situation in the Far East created by unprovoked aggression against the Republic of Korea. The Government of the United States is pleased with the speed and determination with which the United Nations Security Council acted to order a withdrawal of the invading forces to positions north of the 38th parallel. In accordance with the resolution of the Security Council, the United States will vigorously support the effort of the Council to terminate this serious breach of the peace.”<sup>31</sup>

Over the next five days, the United Nations (UN) Security Council passed a resolution authorizing the use of UN troops to the peninsula, an action the Soviets could have vetoed had they been present.<sup>32</sup> That same day, Truman ordered General Douglas MacArthur, commanding all U.S. forces in the Far East to provide support to the South Koreans in the form of air and naval assets. After establishing a naval blockade of the North Korean coast and supplying air support to the beleaguered South Korean forces, he personally flew to South Korea for an inspection tour of the front. He promptly informed Truman that the South Koreans were incapable of defending the country even with American air support; Truman then authorized the deployment of U.S. ground troops on June 30, 1950.<sup>33</sup> By then, however, the South Korean capital of Seoul had fallen to the North Koreans. On July 7, 1950, the UN formally authorized the creation of a unified command directed by an American general (obviously MacArthur).<sup>34</sup>

Although the offensive continued to go well from the North Korean perspective, the Chinese viewed the countermoves by both the UN and the United States with no small amount of trepidation. Not being sure whether the UN intended to limit its effort strictly to South Korea, the PRC feared the commencement of military operations against China as well, including air raids into northeastern China and along the eastern Chinese coast, amphibious operations launched from Taiwan, and potential moves by the French forces stationed on the Sino-Indochinese border. As a result of these concerns, Mao convened a meeting of the top Chinese leadership to discuss how to respond to these challenges should they actually materialize. At the end of the meeting, the Chinese civilian and military commanders came to three decisions, the first being the Sino-Korean border had to be strengthened. Second, major ground forces would be moved into Liaoning province, bordering North Korea

along the Yalu River. Finally, the PLA General Logistics Department would begin stockpiling supplies for a potential intervention in North Korea itself.<sup>35,36</sup>

Following the invasion, the United States began the first steps of resourcing the war effort by imposing a near total embargo on North Korea. On July 10, 1950, the first formal meeting of the FOMC following the outbreak of hostilities convened in Washington. While the Federal Reserve viewed the war and the inevitable increase in military spending as a potential inflation threat, no action was taken to raise interest rates at that moment. Instead, the board of governors recommended asking the Treasury for an immediate issuance of long-term bonds that could absorb personal savings (the bonds would not be eligible for purchase by financial institutions), thus reducing the need of the Federal Reserve to sell long-term debt while simultaneously buying short-term obligations, on the grounds this action would provide a floor beneath short-term interest rates; the Treasury did not concur.<sup>37</sup> Meanwhile, on July 27, 1950, the first emergency appropriations to deal with the Korean situation were approved by Congress.<sup>38</sup>

The UN forces continued to stagger southward under intense North Korean pressure before Lieutenant General Walton Walker was able to stabilize his lines some ninety miles north of the Tsushima Strait and sixty miles east to the Sea of Japan (Fig. 5.2). His forces, now designated as the U.S. Eighth Army, were trapped in a pocket based around the city of Taegu and the port of Pusan. Still, he had received enough reinforcements to establish a mobile reserve to be used to throw back attacks at various points on the perimeter while MacArthur planned his next operation. That operation would include one of the greatest and most successful amphibious landings ever mounted (Fig. 5.3).

In the meantime, the dispute between the Federal Reserve and the Treasury continued unabated. On August 18, 1950, the Federal Reserve banks in Boston and New York unilaterally approved a 1.75 % increase in interest rates, without consulting the Treasury first. The Treasury retaliated by announcing the issuance of 1.75 % notes maturing in thirteen months, leaving the Federal Reserve with no option other than to support the Treasury. Still, the notes from the FOMC meeting indicate the rising level of tension between the Treasury and Federal Reserve over the direction of interest rates as the American war effort began to accelerate and costs rose.<sup>39</sup>

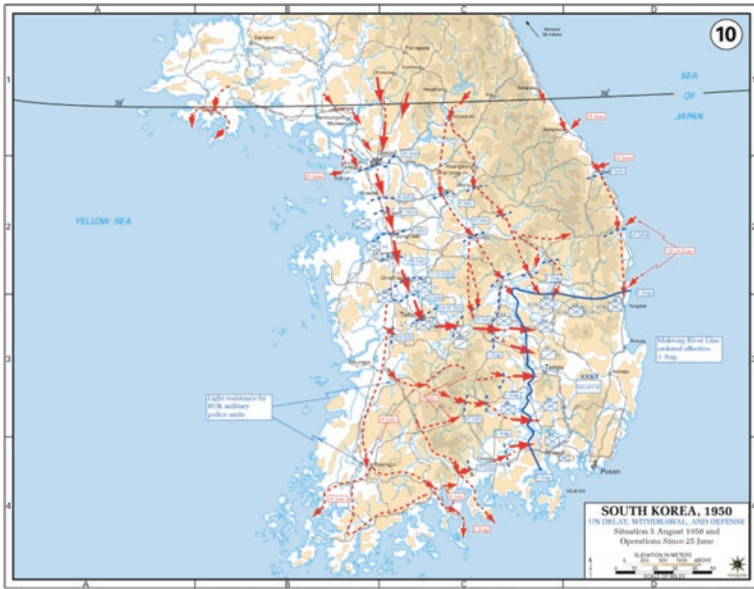


Fig. 5.2

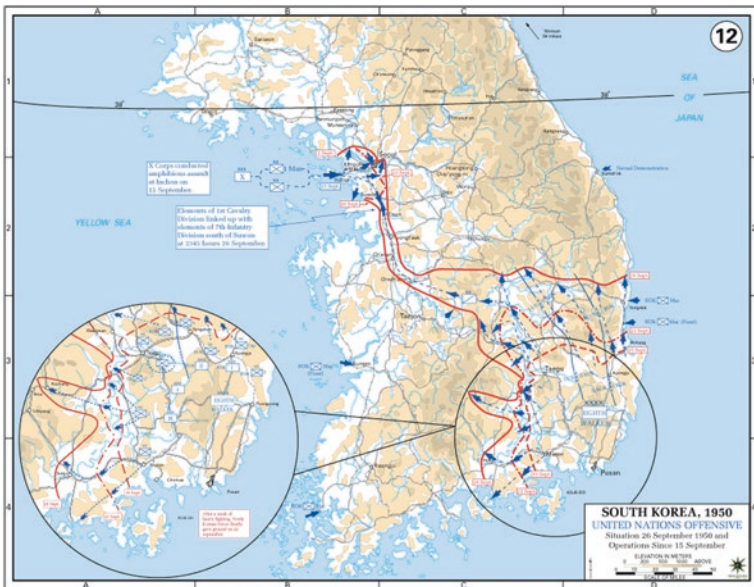


Fig. 5.3

Meanwhile, on September 8, 1950, Congress passed the Defense Production Act of 1950. The legislation provided mobilization agencies with direction in the following areas: priorities and allocations; authority to requisition; expansion of productive capacity and supply; price and wage stabilization; settlement of labor disputes; and control of consumer credit and real estate.<sup>40</sup> Congress also passed the Revenue Act of 1950 on September 22, 1950. Under the terms of the legislation, personal income, corporate, and excise taxes were raised to help fund the conflict.<sup>41,42</sup>

Back on the military front, by September 15, 1950, MacArthur was ready. The U.S. X Corps, under the command of Major General Edward M. Almond, launched a successful amphibious assault on the beaches at Inchon on the west coast of South Korea, some 150 miles north of the Pusan Perimeter and almost directly west of Seoul. Simultaneously, the Eighth Army, with the First Cavalry Division in the lead, broke out of its perimeter in the Taegu-Pusan area, and headed north to join forces with Almond's X Corps. Catching the North Koreans in a pincer movement, by September 25, 1950, the UN forces were at the front gates of Seoul itself, recapturing the city the following day. However, some of the satisfaction of the movement evaporated on news of a successful Vietnamese attack on the French forces in northern Indochina; between September 16 and October 10, 1950, the Vietnamese found themselves controlling 250 miles of territory along the frontier. While this eliminated an immediate threat to China, Mao and the leadership were still very concerned about a UN move north to the Yalu; as such, PLA military preparations continued.<sup>43</sup>

MacArthur, meanwhile, had no intention of stopping at the 38th parallel. His plan called for the X Corps to the east and the Eighth Army to the west to advance northward to the Yalu River. He wanted the X Corps to turn west and drive the remnants of the North Korean forces into the waiting embrace of the Eighth Army. However, geography got in his way. The Korean peninsula is bisected by a large mountain range and thus prevented any coordination between the two UN formations, which had to be controlled directly by MacArthur from his headquarters in Tokyo. Still, between October 1 and November 24, 1950, the UN forces advanced to the banks of the Yalu River. However, in Chinese eyes, MacArthur intended to mount a ground invasion of southern China, despite a number of threats delivered by non-aligned diplomats that such an operation would trigger a massive Chinese response.<sup>44</sup> In response, on

October 8, 1950, the Chinese government issued a formal secret order for armed intervention in Korea in order to stop the UN forces from advancing any further. Initially, the Soviet Union agreed to support the Chinese advance by providing munitions and more importantly air support along China's northern and eastern coasts. However, the Soviets quickly backed off after further consideration, fearing the possibility of a general war with the United States that could involve nuclear escalation. Mao then decided to postpone any intervention for the time being.<sup>45</sup>

By October 11, 1950, the Chinese denounced the crossing of the thirty eighth parallel and again threatened intervention. Concurrently, they approached their erstwhile ally, the Soviet Union for assistance. The Soviets, still reluctant to be drawn into the war, once again agreed to supply enough munitions for some one hundred Chinese divisions to be paid for with the proceeds of a 5.6 billion ruble loan. In addition, they agreed to deploy thirteen air divisions to protect Chinese air space with the strict stipulation they not be used in Korea.<sup>46</sup> Mao agreed and began ferrying Chinese troops across the Yalu River under cover of darkness.<sup>47</sup> MacArthur, meanwhile, continued to believe that Chinese intervention would occur only if the UN troops violated the border between China and North Korea by invading Manchuria, an opinion he repeated in an October 15, 1950, meeting with Truman on Wake Island in the Pacific.<sup>48</sup>

In the meantime, the dispute between the Treasury and the Federal Reserve over the direction of interest rates continued. On November 22, 1950, the Treasury preannounced its December–January refunding plan in order to forestall any action by the Federal Reserve to raise interest rates. The plan called for refunding \$9.7 billion in maturing bonds and certificates in a consolidated five year 1.75 % note. The issue was initially well received but market sentiment changed considerably on the news of the Chinese intervention. Investors now assumed with a full blown war on the horizon, interest rates were bound to increase; as such, they could sit back and wait for additional higher interest rate instruments to make their way into the market. The Federal Reserve on its part purchased some \$2.7 billion of the offering which was offset to some degree by the sale of \$1.3 billion of bonds in its portfolio; nonetheless, the Federal Reserve's balance sheet increased dramatically as a result of the transaction.<sup>49</sup>

MacArthur meanwhile could not have been more wrong in his assessment of Chinese intentions. His forces, now consisting of three corps (two U.S. and one South Korean (ROK)) comprising nine divisions of about 200,000 troops, were surprised and attacked by 180,000 PLA soldiers



on November 25, 1950, who promptly proceeded to drive south. By December 5, 1950, the Eighth Army finally consolidated its position just above the 38th parallel. To the east, the X corps likewise withdrew southward along the east coast. To further complicate UN combat operations, Walker was killed in a car crash on December 23, 1950; he was replaced by General Matthew Ridgeway.<sup>50,51</sup>

In the Annual Report of the Board of Governors of the Federal Reserve for 1950 released on March 31, 1951, McCabe noted

“In 1950, the year covered by this Thirty-seventh Annual Report of the Board of Governors of the Federal Reserve System, inflationary pressures again became a challenge to credit and monetary policy. The general economic situation became especially inflationary following the outbreak of hostilities in Korea and the inauguration of a far-reaching program of national defense in the United States. In consequence, the Government instituted a comprehensive program to restrain inflation, with primary reliance upon fiscal and monetary measures. In accordance with this program, Federal Reserve policy was directed toward restricting, so far as possible, the availability of bank reserves on which multiple credit expansion could be based.”<sup>52</sup>

### 1951

On January 1, 1951, the Chinese launched their next major offensive of the war. Outnumbering the UN forces two to one, 400,000 Chinese troops crossed the thirty eighth parallel and overran the ROK divisions on both sides of the U.S. Second Infantry Division, forcing Ridgeway to commit his two reserve divisions, the third and seventh, to the fight in order to stabilize the front. Although Seoul was evacuated on January 4, 1951, stubborn resistance by the UN forces, complemented by an overwhelming advantage in air superiority, which interdicted the exposed Chinese lines of communication, slowly degraded the pace of the offensive to the point where it ground to a halt by January 15, 1951 (Fig. 5.4).<sup>53</sup>

On the resource management front, Congress enacted the 1951 War Profits Tax Act on January 3, 1951. Truman endorsed the legislation stating

“The 1950 tax legislation has increased Federal revenues very substantially. However, the task ahead of us will require more and much heavier taxes.



Fig. 5.4

I shall, in due course, submit to the Congress recommendations for substantial tax increases. We shall have to canvass and recanvass every revenue possibility, including the new excess profits tax...Excessive exemptions and relief provisions create inequities and reduce the Government's revenues needlessly. For this reason, I am requesting the Secretary of the Treasury to keep excess profits tax under continuous review so that if it develops that some of its provisions need revision, the facts can be placed before the congressional committees without delay.”<sup>54</sup>

Truman followed up this speech with his Annual Report on the economy noting

“For the fiscal years 1951 and 1952 combined, new obligatory authority enacted or anticipated for our primary national security programs—for our military forces, for economic and military aid to other free nations, for atomic energy and stockpiling, and for related purposes—will probably total more than 140 billion dollars. Actual expenditures on these programs in the fiscal year 1950, the last full year before the Korean outbreak, totaled about

18 billion dollars. At the present time, they are running at an annual rate of somewhat more than 20 billion dollars. By the end of this calendar year, they should attain an annual rate between 45 and 55 billion dollars, or from 25 to 35 billion dollars above the present rate. The actions we are taking should enable us within twelve months, to expand this rate of expenditure very rapidly if necessity should require.”<sup>55</sup>

Meanwhile, on January 17, 1951, Treasury Secretary Snyder and Federal Reserve Chairman McCabe met with the president to resolve their differences over interest rate policy. These differences had contributed greatly to the failure in August and September 1950 to market government securities. The following day, Snyder made a speech to the financial community without warning the Federal Reserve ahead of time. In it, he discussed several important points including the importance of avoiding inflation. He also spoke of his desire to see the war effort funded to the greatest extent possible through taxation. Finally, dismissing incremental moves in interest rates as ineffectual in controlling inflation, he alluded to a return of some of the policies employed in World War Two, such as specifically reserving certain commodities for the use of the military (e.g., steel), as well as selective credit, wage, and price controls. He concluded by indicating the Federal Reserve was in complete agreement on these policies, which they were not; needless to say, far from smoothing over the differences with the Federal Reserve, he only exacerbated them.<sup>56</sup>

After halting the Chinese offensive, the UN forces launched a counter-offensive of their own on January 25, 1951. Ridgeway launched a series of limited objective spoiling attacks, looking to regain lost ground in chunks as opposed to wide swaths of territory. Although the Chinese halted some of the momentum of the offensive with a counteroffensive of their own between February 11 and 18, 1951, the UN forces reached the outskirts of Seoul in late February 1951.<sup>57</sup> At this point in time, MacArthur and Ridgeway launched Operation Ripper, an operation designed primarily to inflict massive casualties on the Chinese; the relief of Seoul was a secondary objective while also eliminating a large communist supply base at Chunchon, just south of the 38th parallel. The Chinese proved unable to withstand massive American air and artillery bombardment and gradually withdrew northward. On March 14, 1951, UN forces entered Seoul and found it abandoned.<sup>58</sup>

Matters between the Treasury and Federal Reserve over monetary policy finally came to a head in early 1951 with a final resolution in the

Federal Reserve's favor. On March 4, 1951, the important Treasury-Federal Reserve Accord was reached. In the words of the Federal Reserve Bank of Richmond:

“This watershed agreement released the Federal Reserve from its obligation and made possible the independent conduct of monetary policy. The dramatic events of 1951 laid the institutional foundation for the Fed's pursuit of low inflation and economic stabilization.”<sup>59</sup>

However, by now, MacArthur's desire to pursue the war into China itself, including air attacks on China and the deployment of Nationalist Chinese troops in Korea, thus potentially threatened to turn the conflict, as Clausewitz would have defined it, into an unlimited as opposed to a limited war, finally got the better of Truman, who had no desire to expand the conflict into a World War Three with a nuclear armed Soviet Union. On April 11, 1951, Truman relieved MacArthur from his dual command of UN and U.S. forces in the Far East, stating

“With deep regret I have concluded that General of the Army Douglas MacArthur is unable to give his wholehearted support to the policies of the United States Government and of the United Nations in matters pertaining to his official duties. In view of the specific responsibilities imposed upon me by the Constitution of the United States and the added responsibility which has been entrusted to me by the United Nations, I have decided that I must make a change of command in the Far East. I have, therefore, relieved General MacArthur of his commands and have designated Lt. Gen. Matthew B. Ridgway as his successor. Full and vigorous debate on matters of national policy is a vital element in the constitutional system of our free democracy. It is fundamental, however, that military commanders must be governed by the policies and directives issued to them in the manner provided by our laws and Constitution. In time of crisis, this consideration is particularly compelling. General MacArthur's place in history as one of our greatest commanders is fully established. The Nation owes him a debt of gratitude for the distinguished and exceptional service which he has rendered his country in posts of great responsibility. For that reason I repeat my regret at the necessity for the action I feel compelled to take in his case.”<sup>60</sup>

As noted above, Truman appointed Ridgway in MacArthur's place while Lieutenant General James Van Fleet was appointed to replace Ridgway as commander of the Eighth Army.<sup>61</sup> The following day, the

UN forces resumed their advance northward against the Chinese. The seesaw back and forth of offensive and counteroffensive continued. While Van Fleet continued the UN movement northward, he was well aware of Chinese plans for yet another counteroffensive. To that end, Van Fleet planned for an orderly withdrawal to previously prepared positions. He did not have long to wait; on April 22, 1951, the Chinese attacked the ROK forces north of Seoul, driving the UN back southward. However, as had been the case with other Chinese offensives, this soon petered and paused on April 30, 1951. On May 14, 1951, the second phase of the offensive began with the Chinese concentrating on the ROK forces to the east. However, Van Fleet and his commanders anticipated this move, promptly counterattacked, and shut down the Chinese attacks by May 20, 1951. Between the first and second phases of the operation, the Chinese lost some 160,000 troops, several times those of the UN. While the Chinese could afford such casualties in the short run, it was readily becoming apparent to the Chinese commanders in the field they could not take losses on such a scale indefinitely.<sup>62</sup>

Meanwhile, on May 22, 1951, the UN responded to the latest Chinese challenge. The UN forces rapidly advanced up the east coast against little opposition while holding the main Chinese forces in the western theater. Despite these advances, Van Fleet was ordered to halt his counteroffensive. The JCS refused any further movement northward in light of Soviet threats and geopolitical concerns that in doing so, the United States might be risking another world war with the Soviets, a conflict no one wanted so soon after the conflagration that was World War Two.<sup>63</sup>

Between June 1 and 15, 1951, the decision was made to consolidate UN positions across central Korea in order to await the beginning of peace negotiations (first suggested by the Soviet ambassador to the UN, Jacob Malik, on June 23, 1951, now that the Russians had realized their previous mistake and returned to their seat on the UN Security Council). Not unlike Santa Anna in the Mexican–American War, the Chinese used the negotiations to rebuild their forces while at the same time, mounting an aggressive propaganda campaign against the UN and the United States, in particular.<sup>64</sup> At the same time, as negotiations resumed in July 1951, Mao and his senior field commander, Peng De Huai, argued for the prosecution of a protracted war on the grounds that with their main forces tied down in Korea and Western Europe, the United States could no longer afford the cost in lives and resources in the face of domestic opposition to the war. However, as was the case in the Mexican–American conflict, the UN

command, much like American commander in Mexico, Winfield Scott, soon tired of these games and renewed their offensive in August 1951. By November 1951, the Chinese forces, thoroughly exhausted and running short of resources, had been driven back well north of the 38th parallel; these setbacks prompted Mao and his commanders request a resumption of armistice talks.<sup>65</sup>

The president released his mid-year Economic Report to Congress on July 23, 1951. In the report, Truman noted

“Measured by costs and by the strain on the economy, this is a large program. But it is a minimum program measured against the need, and is well within our capacity. The accompanying Review by the Council of Economic Advisers reveals in detail that, with wise policies, our economy can support this effort and yet remain sound and grow stronger. Compared with the rise of almost 30 billion dollars in security outlays scheduled for the coming 12 months, we expanded such outlays by about 75 billion dollars (in terms of present prices) in the first year of our participation in World War II. The program as now scheduled is not expected to absorb at its peak more than about one-fifth of our total output, compared with almost half in 1944. A year from now the program is expected to require about 11 million men and women directly or indirectly engaged in defense, contrasted with about 25 million at the peak of World War II. We cannot now be sure what our production needs will be beyond that. If further aggression does not occur, we hope to be able, within two or three years, to level off our defense program, and to move on to a maintenance basis. At present, however, our principal concern is not with maintaining military strength. Our principal concern is to build up military strength in the first place.”<sup>66</sup>

Following the release of this report, the Treasury announced a new bond drive on August 28, 1951.<sup>67</sup>

If Mao and Peng believed the United States to be in economic distress and unable to continue the war in Korea, they must have been sorely disappointed by Truman’s words. If anything, China was the combatant on the verge of economic collapse. The continued western economic blockade and the fact that the Chinese government had spent half its revenue in 1951 on the PLA, meant, at that rate of spending, the Chinese economy was on a path to implosion, a condition exacerbated by a general reluctance of the Soviet Union to render significant military and economic aid on an ongoing basis. Thus, a shift to positional warfare, although no doubt frustrating to the more offensively minded Chinese generals trained in the Maoist philoso-

phy of war, was deemed necessary if China was to remain in the conflict. Mao and his associates were quickly learning the United States was neither a paper tiger on the battlefield nor on the economic front.<sup>68</sup>

On October 3, 1951, however, the strategic landscape was again altered. On that day, the Soviet Union exploded their first nuclear weapon. A message had been sent; U.S. strategic superiority could no longer be assumed. Operationally, given her much larger conventional forces deployed in Eastern Europe, the Soviets now held the upper hand vis-à-vis NATO. The calculus in Korea had also changed; while the United States had never really seriously considered the use of atomic weapons in theater, preferring to fight the war on a limited basis, that possibility was now foreclosed completely. By now, Korea had truly entered into a stalemate phase strategically, operationally, and tactically.

On October 20, 1951, the Revenue Act of 1951 was passed by Congress. Among its provisions were an increase in the surtax on individual incomes; an increase in the corporate income tax; a new method for computing the excess profits tax; as well as a litany of various amendments to previous legislation.<sup>69</sup> Meanwhile, in the Annual Report of the Federal Reserve Board of Governors dated January 30, 1952, the new Chairman, William M. Martin, noted

“The year 1951, which is covered by this, the Thirty-eighth Annual Report of the Board of Governors of the Federal Reserve System, marked a transition from strong inflationary trends to relative economic stability at high levels of activity. The inflationary pressures dominant for an extended period following the Korean outbreak were brought under restraint during the first half of the year...Also, the military situation in Korea was improving, and direct price and wage controls had been imposed to help curb inflationary developments.”<sup>70</sup>

## 1952

Following the major Chinese intervention in the war in October, 1951, the two sides settled into stalemate along the thirty eighth parallel, the original demarcation line between North and South Korea while the Panmunjon negotiations dragged on interminably. Neither side attempted to mount a serious offensive in 1952; combat operations for the most part were sharp, local affairs, although extremely costly. In October, negotiations broke off once again, largely on disagree-

ments regarding the repatriation of prisoners of war (POW); however, by now, the war had become an election football in the United States. While action on the battlefield may have stagnated, the same could not be said for the political and resource management efforts of the United States. On January 2, 1952, the president announced a reorganization of the Bureau of Internal Revenue in order to convert the bureau from a patronage-based system subject to corruption to a career civil service organization, noting

“Some persons in the Bureau of Internal Revenue have betrayed the public trust posed in them. The revelation of that fact has come as a shock to all decent citizens. I have directed that every effort be made to expose and punish such persons wherever they may be found. I intend to have the highest standards of integrity maintained in the Federal Service. Those standards are high now and have been observed faithfully by the overwhelming majority of our public servants. We must rid the Government of any employees who misuse their official positions for personal gain. Equally important, we must correct any conditions which make it possible for such practices to exist. I believe that this reorganization will be of great help in achieving both of these purposes.”<sup>71</sup>

Truman followed up this action with his Annual State of the Union message to Congress. In it, he outlined three major priorities for the country entering 1952:

“First: The threat of world war is still very real. We had one Pearl Harbor—let’s not get caught off guard again. If you don’t think the threat of Communist armies is real, talk to some of our men back from Korea. Second: If the United States had to try to stand alone against a Soviet-dominated world, it would destroy the life we know and the ideals we hold dear. Our allies are essential to us, just as we are essential to them. The more shoulders there are to bear the burden the lighter that burden will be. Third: The things we believe in most deeply are under relentless attack. We have the great responsibility of saving the basic moral and spiritual values of our civilization. We have started out well—with a program for peace that is unparalleled in history. If we believe in ourselves and the faith we profess, we will stick to that job until it is victoriously finished.”<sup>72</sup>



Finally, foreshadowing some of the problems the DOD faces today, he presented his State of the Budget report to Congress on January 21, 1952, noting:

“It is likely that we shall have to maintain relatively large military forces for a long time to come. This fact raises three problems with respect to the welfare of military personnel that will require legislative action. The first is legislation proposed by the Administration to make increases in military pay and allowances comparable to the increases granted civilian employees of the Government last year. The military budget includes, under proposed legislation, an amount estimated to be sufficient to cover the cost of such an increase.

Second, present laws do not in many cases provide adequate benefits for the families of servicemen who die, either while serving their country or after retirement. In recognition of this need, the Congress is now considering survivors benefit legislation which would authorize a self-sustaining system based on contributions from the servicemen themselves. This legislation, however, does not provide protection if service in the armed forces is terminated before retirement. I believe that protection should be continuous and that the most equitable way to achieve this protection is to extend the coverage of the old-age and survivors insurance system to all members of the armed forces. Such coverage would provide the same basic protection for our service men and women that is now enjoyed by most other Americans. A military survivors benefit system should be designed to provide supplementary benefits scaled to the earnings in excess of those covered by the old age and survivors insurance system. These new military benefits would supplement the payments under the old-age and survivors insurance and veterans’ laws in these higher pay ranges.

Third, I am concerned about the very large future obligations which are being accumulated under the present military retirement system. At the present time, these future obligations are not funded and annual appropriations cover only the military retirement costs for that year. I believe that the Congress should examine all the Federal retirement laws and the experience which we have gained under them with a view to determining whether future obligations for military retirement should be met by a contributory system in which career military personnel and the Government share in the establishment and maintenance of a retirement fund adequate to meet the rapidly increasing costs of military retirement benefits.”<sup>73</sup>

However, 1952 was also an election year. World War Two hero Dwight D. Eisenhower easily defeated his Democratic rival Adlai Stevenson in the general election. Eisenhower's election not only had domestic ramifications (the Republicans controlled the White House for the first time since Roosevelt's first victory in 1932) but foreign consequences as well. The Chinese had weathered MacArthur but now they were confronted with another popular senior military officer turned politician who would soon exhibit a predilection for nuclear over conventional weapons as a cost saving measure. The implications of this were not lost on Mao and his colleagues. They had accomplished their goal of fighting the Americans to a draw in Korea; the last thing they wanted to see was their still evolving revolution destroyed by American nuclear capabilities. As such, a successful conclusion to the armistice talks at Panmunjom took on added urgency.

### 1953

As the battlefield stalemate entered its fourth year, Communist movements around the world, meanwhile, including Mao and the PRC, were rocked by the news of Jozef Stalin's death on March 3, 1953. Without their major benefactor (although an argument can be made this at times fell well short of what the Chinese hoped to gain from their alliance with the Soviet Union) and the prospect of a Republican administration led by former General Dwight D. Eisenhower that might be more inclined to pursue the conflict in Korea more forcefully, the Chinese requested a resumption of negotiations regarding the exchange of sick and wounded POWs as well as an reaching an armistice.<sup>74</sup>

Despite some last minute fighting between the Chinese and the ROK units opposite them (given their perilous economic straits amidst signs the Eisenhower administration was preparing to renew offensive operations, the Chinese took great care not to antagonize the American forces), negotiations resumed on July 10, 1953 and concluded with the signing of an armistice on July 27, 1953. The relatively short, bloody, and still inconclusive affair ended with both sides essentially in the same political and geographic positions they.<sup>75</sup>

## ENDS

Looking at Mead's model of American political thought, I argue that Wilsonian Democracy provides the most, if not completely applicable, description of the United States approach to the Korean War, given that Wilsonians "believe that the United States has a moral obligation an important national interest in spreading American democratic and social values throughout the world, creating a peaceful international community that accepts the rule of law." Both the Truman and Eisenhower Doctrines focused on potential overseas intervention, if not necessarily to spread American democratic values as much to halt the spread of communist movements worldwide, while still continuing to focus on the standoff with the Soviet Union in Western Europe.

Utilizing Beaufre's model, the *Ends Limited, Means Abundant* strategy—"when resources are abundant the mere threat of force may be sufficient to satisfy objectives, if vital enemy interests are not imperiled"—rather neatly describes the American approach in Korea. While the Truman administration was determined to halt the spread of communism, by the same token, it did not wish to see the conflict escalate into World War Three with the Soviets (an opinion the Soviets shared; hence, their reluctance to render significant aid to the Chinese). The country was once again running budget surpluses by the beginning of the war so resourcing the conflict, as long as it remained limited, was eminently attainable. From the American perspective therefore, Korea was considered a success. The United States had stopped communist aggression and essentially restored the pre-war geographic boundaries. Moreover, the Americans had done so by fighting a state on state limited war that did not escalate to the level of World War Three involving the Soviet Union and more important U.S. interests in around the world. Moreover, they had done so at a fraction of the expense incurred in World War Two, for example.

As for the Chinese, Beaufre's *Ends Critical, Means Limited* strategy—"when objectives are critical, but resources are limited and freedom of action is abridged, piecemeal actions that combine direct and indirect pressures with controlled military force may be effective. This approach favors those that are in a strong defensive position and are content to proceed slowly." more than adequately describes China's reaction to the UN intervention in Korea.

With an economy in shambles following decades of war against the Japanese and then the Nationalists, Mao was acutely aware of the threat UN forces posed to northeastern China, the economic heart of the Peoples Republic. As such, his three pronged strategy (“the enemy’s strategic offensive and our strategic defensive”; “the enemy’s strategic consolidation and our preparation for the counteroffensive”; and “our strategic counteroffensive and the enemy’s strategic retreat.”) maps directly onto the subsequent operational timeline of the war. He allowed the UN forces under MacArthur to approach the Yalu (whether he intended to cross or not remains up for debate) while continually warning the United States of the certainty of Chinese intervention. At the same time, he gave orders to the PLA to be prepared to intervene and to do so without being detected. Finally, when he judged the time had come, the Peoples Volunteers, as they became known, launched their own counteroffensive, driving the UN forces southward.

To the Chinese therefore, the stalemate in Korea was tantamount to a victory over the world’s leading military power. Mao attributed this “victory” to two factors:

“First, on a political level, “leadership is one factor; nothing can succeed without correct leadership. But we won mainly because it was a people’s war, the whole people gave it support, and the people of China and Korea fought shoulder to shoulder.” Second, militarily, our battle line...is truly a bastion of iron. Our soldiers and cadres are resourceful and brave and dare to look death in the face.”<sup>76</sup>

## WAYS

The Korean War ended in a strategic draw on the battlefield; however, this is not to say both sides achieved their operational and tactical goals. For the Americans, maintenance of the operational and tactical status quo, particularly after a terrible beginning, was considered to be an acceptable achievement. Korea’s pre-war borders were essentially restored without resorting to an enlarged geopolitical war. Moreover, the conflict gave the United States, in particular, her fledgling air arm, the chance to try out new technologies such as the jet aircraft, in a combat situation, that not only validated the technology but also the refinement of new tactics. As for the Chinese, while they took great pride in “defeating” the capitalist world’s most powerful military force, they also were disappointed that they did not succeed in

ejecting the democratic government of South Korea from the peninsula in favor of reunification by the North under Kim II Sung.

## MEANS

### *Post-War Fiscal Policy*

The 1950 Defense Production Act incorporated many of the lessons learned in World War Two by giving the president increased wartime powers while at the same time enabling a more rapid and controlled mobilization effort. But the underlying environment had changed as well. For one thing, management hostility to organized labor had declined considerably as long as prices were allowed to rise in the interests of offsetting increasing wage demands from worker and their representatives. Moreover, labor contracts had changes as well. Now many of these agreements incorporated automatic cost of living wage increases as well as an “annual improvement factor” that called for an annual increase in hourly wages of approximately five cents an hour. These private sector agreements posed problems for the Truman administration in that if one union received these benefits, others would demand the same treatment, thus impacting overall wages across the country. The administration had attempted to rein in these increases with the establishment of a Wage Stabilization Board in 1946. However, in 1950, the Board held that cost of living increases in existing contracts would not violate the principles of wage stabilization, thus weakening the wage stabilization program.<sup>77</sup>

Another blow to the wage stabilization program came in the form of the Capehart Amendment to the 1950 Defense Production Act. The terms of the legislation called for allowing manufacturers the right to raise prices to compensate them whenever their costs, in particular labor, rose. As the compensation of auto workers increased, their counterparts in the steel industry naturally demanded similar treatment. Consequently, company managements demanded a \$5 increase in the price of steel per ton, whereas the Truman administration was only willing to allow a \$3 increase. Upon completion of the current contract, Truman nationalized the steel mills, an act later held unconstitutional by the Supreme Court. In the end, both industry and labor achieved their goals, resulting in the termination of the wage stabilization program.<sup>78</sup>

In terms of overall fiscal policy, income taxes and other internal revenue once again accounted for the bulk of federal government receipts (68% on

**Table 5.6**

<i>Year</i>	<i>Individual income taxes (%)</i>	<i>Other internal revenue (%)</i>	<i>Customs (%)</i>	<i>Social insurance income taxes (%)</i>	<i>Excise taxes (%)</i>	<i>Estate taxes (%)</i>	<i>Other</i>	<i>Total receipts (%)</i>
1950	40%	33%	1%	11%	19%	2%	-6%	100%
1951	40%	29%	1%	11%	16%	1%	1%	100%
1952	41%	24%	1%	10%	13%	1%	10%	100%
1953	42%	25%	1%	10%	14%	1%	8%	100%
Average	40%	28%	1%	10%	16%	1%	2%	100%

average) during the war years. From an expenditure standpoint, as might be expected, the armed forces accounted for approximately 45% of total spending on average, a relatively lower percentage than in previous wars. Moreover, the Korean conflict highlighted the increasing share of expenditures on the Air Force, reflecting the reliance on both land- and air-based nuclear weapons as a deterrent strategy in the face of conventional inferiority, at least in terms of raw numbers. Overall, budget deficits were a quite manageable \$150 million on average from 1950 to 1953 (Tables 5.6, 5.7, and 5.8).<sup>79,80,81</sup>

### *Post-War Monetary Policy*

Perhaps the most important development in monetary policy during the war was the so-called “Treasury-Federal Reserve” agreement. As discussed earlier, there is a fundamental policy difference between treasuries and central banks, especially when it comes to financing unanticipated armed conflicts. To reiterate, treasuries naturally looked to keep the cost of financing wars as low as possible; to that end, the lower the prevailing interest rates, the better. Conversely, central banks were concerned with two areas: interest rates and the size of the money supply. Too little monetary assets resulted in depressed economic activity as businesses could not secure enough financing to expand their enterprises. Too much money in the system sparks economic activity resulting in inflation as money pursued increasingly scarce assets. Central banks, therefore, relied on lowering or raising interest rates in order to create a balanced economic environment. During wartime, economic activity inevitably accelerates; central banks then look to raise interest rates in order to tamp down the pace of the economy and the rate of inflation. Obviously, this policy works in direct opposition to the desires of the treasury.

Table 5.7

<i>Year</i>	<i>Department of the Army (%)</i>	<i>Department of the Navy (%)</i>	<i>Department of the Air Force (%)</i>	<i>Defense wide (%)</i>	<i>Veterans compensation (%)</i>	<i>Interest on the public debt (%)</i>	<i>Other (%)</i>	<i>Total outlays (%)</i>
1950	10%	10%	9%	1%	6%	15%	50%	100%
1951	14%	10%	12%	1%	4%	10%	49%	100%
1952	24%	15%	19%	1%	3%	9%	28%	100%
1953	22%	16%	20%	1%	3%	9%	29%	100%
Average	17%	13%	15%	1%	4%	11%	39%	100%

**Table 5.8**

<i>Year</i>	<i>Total receipts (\$)</i>	<i>Total outlays (\$)</i>	<i>Surplus/Deficit (\$)</i>
1950	\$39,443,000	\$39,544,087	(\$101,087)
1951	\$53,390,000	\$53,970,284	(\$580,284)
1952	\$68,011,000	\$65,303,201	\$2,707,799
1953	\$71,495,000	\$74,119,333	(\$2,624,333)
Total	\$232,339,000	\$232,936,905	(\$597,905)
Average	\$58,084,750	\$58,234,226	(\$149,476)

**Table 5.9**

<i>Year</i>	<i>Interest on the public debt (\$)</i>	<i>Total debt (\$)</i>	<i>Interest as a % of total debt</i>
1950	\$5,749,913	\$257,357,352	2.2%
1951	\$5,612,655	\$255,221,978	2.2%
1952	\$5,859,263	\$259,105,178	2.3%
1953	\$6,503,580	\$266,071,061	2.4%
Average	\$5,931,353	\$259,438,892	2.3%

Following the war, the Treasury's immediate policy was to pay down the war related debt; as such, the Treasury opposed any change in wartime financial policies. Moreover, by maintaining the wartime interest rate pattern, the Treasury was able to keep control of interest rate policy at the expense of the Federal Reserve. However, the March 1951 agreement, brokered by the Truman administration, essentially released the Federal Reserve to conduct an independent monetary policy. In winning its argument, the Federal Reserve benefited from two major factors: first, support within the administration, on Capitol Hill, and the financial press in light of increased economic activity, and second, a subsequent rise in the rate of inflation. After the war, the Federal Reserve limited itself to raising short-term interest rates on Treasury bills and certificates while ending the preferential discounts for government loans.<sup>82</sup>

### *Post-War Debt Policy*

Overall, federal government debt did not decline as dramatically as had been the case in previous conflicts. Much of this pertained to the simple fact that the Korean War followed closely on the heels of World War Two; while the economy certainly began to recover beginning in 1946, the need



to ramp up both the size and spending on the armed forces precluded any significant drawdown in federal debt levels (Table 5.9).<sup>83</sup>

From the Chinese economic perspective, the end of the war could not have come at a more opportune time. Upon the intervention of the Chinese Peoples Volunteers (CPV) in October 1951, the Communist Party took measures to shield the still fragile economy from the impact of the continuing western embargo, such as “rush buying” as much material from foreign suppliers before these resources were cut off. Still, these measures fell well short of what was necessary, given that Mao and his colleagues vastly underestimated how twentieth century economic warfare was to be waged. Still, the Party took advantage of these difficult conditions to increase its control over foreign trade, much as it had done to secure the nation politically in the period immediately following the flight of the Nationalists to Taiwan, much to the dismay of the private business community. Perhaps the most significant impact of the embargo, however, was that it forced the Chinese to face some unpleasant facts, most notably that China would, for the time being, be forced to rely on the Soviet Union and its Eastern European satellites for economic aid, raw materials, and end markets. On the one hand, the Party believed that in time, China would be able to compete with its fellow Communists on a more equal basis. On the other, the Chinese, particularly, in the late 1950s following the death of Stalin and the accession of Nikita Khrushchev to the office of First Secretary of the Soviet Communist Party, grew to distrust Soviet intentions, in large part, fueled by earlier Russian reluctance to fully back China during the war with sufficient monetary (the Soviets never granted but only lent money to the PRC at a predetermined rate of interest) and military support (e.g., the massive use of Soviet air power), interpreting these policies as a way to contain Chinese political and economic development. Having said that not until 1955 would the western trade embargo, initially built around more severe sanctions against the Chinese vis-à-vis the Soviet Union and its satellites, and despite resistance from the Eisenhower Administration, finally collapse under its own weight.<sup>84</sup>

### *Post-War Mobilization Policy*

As for Koistinen’s four factors of economic mobilization, the most important during the Korean conflict was the political element. While the war saw the introduction of some new technologies, such as the jet airplane, for the most part the war was fought with the same weapons and tactics

used in World War Two. Politically, however, the landscape had changed for one simple reason: nuclear weapons. Neither the United States nor the Soviet Union wished to see the conflict escalate beyond the confines of the Korean peninsula; as such, both sides implicitly agreed to fight the war on a rather limited basis. Moreover, for the first time, the United States had in its possession a defined defense industrial base that was able very quickly, based on its experience a mere five years earlier, to ramp up defense production very quickly to meet the demands of the war at a relatively affordable cost.

## NOTES

1. The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/showelection.php?year=1948>, accessed June 6th, 2014.
2. The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/ws/?pid=13293>, accessed October 5th, 2014.
3. George Kennan, “The Sources of Soviet Conduct”, *Foreign Affairs Magazine*, volume 25, no.4, (July, 1947), 566–582, <http://www.mconway.net/page1/page6/files/The%20Long%20Telegram.pdf>, accessed October 5th, 2014; Robert D. Hormats, *The Price of Liberty: Paying for America's Wars*, (New York: Henry Holt and Co., 2007), 177; U.S. Department of State, *The Washington Naval Conference, 1921-1922*, <http://history.state.gov/milestones/1945-1952/truman-doctrine>, accessed October 5th, 2014.
4. James I. Matray. “Dean Acheson’s Press Club Speech Revisited”, *The Journal of Conflict Studies*, volume 22. No. 1, Spring, 2002, <http://journals.hil.unb.ca/index.php/jcs/article/view/366/578>, accessed October 5th, 2014.
5. U.S. Department of State, *The Truman Doctrine, 1947*, <http://history.state.gov/milestones/1945-1952/truman-doctrine>, October 5th, 2014; U.S. Department of State, *The National Security Act of 1947*, <http://history.state.gov/milestones/1945-1952/national-security-act>, October 5th, 2014.
6. Ernest and Trevor Dupuy. *The Encyclopedia of Military History*, (New York: Harper Collins, 1977), 1267. U.S. Department of State, *The Chinese Revolution of 1949*, <http://history.state.gov/milestones/1945-1952/chinese-rev>, October 5th, 2014.
7. Chen Jian, *China’s Road to the Korean War: The Making of the Sino-American Confrontation*, (New York: Columbia University Press), 1994,

- ix–xi, 14–15, 18–19, Shu Guang Zhang, *Mao's Military Romanticism: China and the Korean War, 1950-1953*, (Lawrence, KS: University Press of Kansas, 1995), 33, 38–40.
8. Dupuy and Dupuy, *Encyclopedia of Military History*, 1202.
  9. Ibid, 1202.
  10. Dupuy and Dupuy, *Encyclopedia of Military History*, 1240–1253; Jian, *China's Road to the Korean War*, 10–11; Zhang. *Mao's Military Romanticism*, 46–47, 63–64, 79–81, 90.
  11. Dupuy and Dupuy, *Encyclopedia of Military History*, 1240–1253; Jian, *China's Road to the Korean War*, 10–11; Zhang. *Mao's Military Romanticism*, 46–47, 63–64, 79–81, 90.
  12. U.S. Air Force. National Museum of the United States Air Force, *USAF Established*, (Wright Patterson AFB: Dayton, OH), <http://www.national-museum.af.mil/factsheets/factsheet.asp?id=1845>, accessed January 25th, 2015.
  13. National Bureau of Economic Research. *U.S. Business Cycle Expansions and Contractions* (Boston, MA: National Bureau of Economic Research) <http://www.nber.org/cycles.html>, accessed August 14th, 2014.
  14. Shu Guang Zhang, *Economic Cold War: America's Embargo against China and the Soviet Alliance, 1949-1953*, (Stanford, CA: Stanford University Press), 2001, 52.
  15. Zhang, *Economic Cold War*, 28.
  16. Board of Governors of the Federal Reserve System (U.S.), 1935- and Federal Reserve Board , 1914-1935. "1949," *Annual Report of the Board of Governors of the Federal Reserve System* (1949). <https://fraser.stlouisfed.org/title/?id=117#!2406>, accessed on January 25, 2015.
  17. United States. Bureau of the Census. "Volume 2" in *Historical Statistics of the United States: Colonial Times to 1970* (1975). <https://fraser.stlouisfed.org/title/?id=237#!5808>, accessed on January 6, 2015.
  18. United States. Bureau of the Census. "Volume 2" in *Historical Statistics of the United States: Colonial Times to 1970* (1975). <https://fraser.stlouisfed.org/title/?id=237#!5808>, accessed on January 6, 2015.
  19. United States. Bureau of the Census. "Volume 2" in *Historical Statistics of the United States: Colonial Times to 1970* (1975). <https://fraser.stlouisfed.org/title/?id=237#!5808>, accessed on January 6, 2015.
  20. Allan H. Meltzer. *A History of the Federal Reserve: Volume 1, 1913-1951*, (Chicago: University of Chicago Press, 2003), 629; Library of Congress. U.S. Statutes at Large, 80, 1, 103–105, [http://www.constitution.org/uslaw/sal/061\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/061_statutes_at_large.pdf), accessed June 24th, 2014.
  21. Meltzer. *A History of the Federal Reserve*, 632; Hugh Rockoff, *America's Economic Way of War: War and the U.S. Economy from the Spanish-American War to the Persian Gulf War*, (Cambridge, UK: Cambridge

- University Press, 2012), 247; The Urban Institute and the Brookings Institution, *Tax Legislation 1950-1959*, <http://www.taxpolicycenter.org/legislation/1950.cfm#Excess1950>; Library of Congress; U.S. Statutes at Large, 81st Cong., 2nd sess., 906-967, [http://www.constitution.org/uslaw/sal/064\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/064_statutes_at_large.pdf), accessed June 24th, 2014.
22. Meltzer. *A History of the Federal Reserve*, 630, 657–658; Richard M. Miller Jr., *Funding Extended Conflicts: Korea, Vietnam and the War on Terror*, (Westport, CT: Praeger Security International), 2007, 15.
  23. Meltzer. *A History of the Federal Reserve*, 671.
  24. Meltzer. *A History of the Federal Reserve*, 685–690.
  25. *Ibid*, 685–690.
  26. Board of Governors of the Federal Reserve System (United States), 1935- and Federal Reserve Board , 1914–1935. “1949,” *Annual Report of the Board of Governors of the Federal Reserve System* (1949). <https://fraser.stlouisfed.org/title/?id=117#!2406>, accessed on January 24, 2015.
  27. United States. Bureau of the Census. “Volume 2” in *Historical Statistics of the United States: Colonial Times to 1970* (1975). <https://fraser.stlouisfed.org/title/?id=237#15808>, accessed on January 6, 2015.
  28. Wilbur D. Jones, *Arming the Eagle: A History of U.S. Weapons Acquisition Since 1775*, (Fort Belvoir, VA: Defense Systems Management College Press), 1999, 323; Zhang, *Mao’s Military Romanticism*, 41; U.S. Department of State, *The Truman Doctrine, 1947*, <https://history.state.gov/milestones/1945-1952/nato>, October 5th, 2014.
  29. U.S. Military Academy Department of History, <http://www.westpoint.edu/history/SiteAssets/SitePages/Korean%20War/01KWPrincipalCampaigns.gif>, accessed June 1st, 2014.
  30. Secretary of State Dean G. Acheson, *Crisis in Asia - An Examination of U.S. Policy in the Institute of Oriental Culture*, (Tokyo; University of Tokyo), <http://www.ioc.u-tokyo.ac.jp/~worldjpn/documents/texts/docs/19500112.SIE.html>, accessed October, 5th, 2014.
  31. The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/ws/index.php?pid=13537>, accessed October 5th, 2014.
  32. United Nations High Commissioner for Refugees, Resolution 82 (1950) of 25 June 1950, <http://www.refworld.org/cgi-bin/texis/vtx/rwmain?docid=3b00f15960>, accessed October 5th, 2014.
  33. Dupuy and Dupuy. *Encyclopedia of Military History*, 1242.
  34. United Nations High Commissioner for Refugees, <http://www.refworld.org/docid/3b00f1e85c.html>, accessed October 5th, 2014.
  35. Rockoff. *America’s Economic Way of War*, 243; Jian, *China’s Road to the Korean War*, 135; Zhang. *Mao’s Military Romanticism*, 58–59, 63–64.
  36. U.S. Military Academy Department of History, <http://www.westpoint.edu/history/SiteAssets/SitePages/Korean%20War/Korea10.gif>, accessed June 1st, 2014.

37. Meltzer. *A History of the Federal Reserve*, 691; U.S. Federal Reserve, <http://www.federalreserve.gov/monetarypolicy/files/FOMChminec119500710.pdf>, accessed June 1st, 2014.
38. Richard M. Miller, *Funding Extended Conflicts: Korea, Vietnam and the War on Terror*, (Praeger International: Westport, CT, 2007), 19–24; Library of Congress. U.S. Statutes at Large, 81, 2, 381–382, [http://www.constitution.org/uslaw/sal/064\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/064_statutes_at_large.pdf), accessed June 24th, 2014.
39. Meltzer. *A History of the Federal Reserve*, 691; U.S. Federal Reserve, <http://www.federalreserve.gov/monetarypolicy/files/FOMChistmin19500818.pdf>, accessed June 1st, 2014.
40. U.S. Statutes at Large, 81st Cong, 2nd sess., 798–822, [http://www.constitution.org/uslaw/sal/064\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/064_statutes_at_large.pdf), accessed June 24th, 2014.
41. Rockoff. *America's Economic Way of War*, 246; Library of Congress. U.S. Statutes at Large, 81st Cong., 2nd sess., 906–966, [http://www.constitution.org/uslaw/sal/064\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/064_statutes_at_large.pdf), accessed June 24th, 2014.
42. Dupuy and Dupuy. *Encyclopedia of Military History*, 1242–1243; U.S. Military Academy Department of History, <http://www.westpoint.edu/history/SiteAssets/SitePages/Korean%20War/Korea11a.gif>, accessed June 1st, 2014.
43. Dupuy and Dupuy. *Encyclopedia of Military History*, 1243; Zhang. *Mao's Military Romanticism*, 70.
44. Dupuy and Dupuy. *Encyclopedia of Military History*, 1244–1245; Zhang. *Mao's Military Romanticism*, 77.
45. Zhang. *Mao's Military Romanticism*, 82–83.
46. Zhang. *Mao's Military Romanticism*, 84.
47. Zhang. *Mao's Military Romanticism*, 87–88, 94.
48. Dupuy and Dupuy. *Encyclopedia of Military History*, 1244. The Truman Library, *Notes on the Wake Island Conference*, [http://www.trumanlibrary.org/whistlestop/study\\_collections/koreanwar/documents/index.php?documentid=ki-9-9&pagenumber=1](http://www.trumanlibrary.org/whistlestop/study_collections/koreanwar/documents/index.php?documentid=ki-9-9&pagenumber=1), accessed June 1st, 2014.
49. Meltzer. *A History of the Federal Reserve*, 696.
50. Dupuy and Dupuy. *Encyclopedia of Military History*, 1245–1246.
51. U.S. Military Academy Department of History, <http://www.westpoint.edu/history/SiteAssets/SitePages/Korean%20War/Korea15.gif>, accessed June 1st, 2014.
52. Board of Governors of the Federal Reserve System (United States), 1935- and Federal Reserve Board, 1914-1935. “1950,” *Annual Report of the Board of Governors of the Federal Reserve System* (1950). <https://fraser.stlouisfed.org/title/?id=117#!2407>, accessed on January 24, 2015.
53. Dupuy and Dupuy. *Encyclopedia of Military History*, 1246.
54. The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/ws/index.php?pid=13776>, accessed October 5th, 2014; Library of Congress. U.S. Statutes at Large, 81, 2,

- 1137–1220, [http://www.constitution.org/uslaw/sal/064\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/064_statutes_at_large.pdf), accessed June 24th, 2014.
55. The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/ws/index.php?pid=13788&st=Truman&st1=>, accessed October 5th, 2014.
  56. Meltzer. *A History of the Federal Reserve*, 700–701.
  57. Dupuy and Dupuy. *Encyclopedia of Military History*, 1247.
  58. Ibid, 1247.
  59. Federal Reserve Bank of Richmond, “*The Treasury-Fed Accord*”, [http://www.richmondfed.org/publications/research/special\\_reports/treasury\\_fed\\_accord/](http://www.richmondfed.org/publications/research/special_reports/treasury_fed_accord/), accessed October 5th, 2014.
  60. Harry S. Truman, “Dismissal of MacArthur”, (Independence, MO: Truman Library), [http://www.trumanlibrary.org/exhibit\\_documents/index.php?tldate=0000-00-00&groupid=3461&pagenumber=1&collectonid=firem](http://www.trumanlibrary.org/exhibit_documents/index.php?tldate=0000-00-00&groupid=3461&pagenumber=1&collectonid=firem), accessed October 5th, 2014.
  61. Dupuy and Dupuy. *Encyclopedia of Military History*, 1247–1248; The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/ws/?pid=14058>, accessed October 5th, 2014.
  62. Dupuy and Dupuy. *Encyclopedia of Military History*, 1248–1249; Zhang. *Mao’s Military Romanticism*, 150–152.
  63. Dupuy and Dupuy. *Encyclopedia of Military History*, 1249.
  64. Dupuy and Dupuy. *Encyclopedia of Military History*, 1250; Zhang. *Mao’s Military Romanticism*, 218–221.
  65. Dupuy and Dupuy. *Encyclopedia of Military History*, 1250; Zhang. *Mao’s Military Romanticism*, 218–221.
  66. The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/ws/index.php?pid=13851>, accessed October 5th, 2014.
  67. Board of Governors of the Federal Reserve System (United States), 1935–and Federal Reserve Board , 1914–1935. “1951,” *Annual Report of the Board of Governors of the Federal Reserve System* (1951). <https://fraser.stlouisfed.org/title/?id=117#!2408>, accessed on January 24, 2015.; The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/ws/index.php?pid=13903>, accessed October 5th, 2014.
  68. Zhang. *Mao’s Military Romanticism*, 163.
  69. Library of Congress. U.S. Statutes at Large, 82nd Cong., 1st sess., 452–569, [http://www.constitution.org/uslaw/sal/065\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/065_statutes_at_large.pdf), accessed June 24th, 2014.
  70. Board of Governors of the Federal Reserve System (United States), 1935–and Federal Reserve Board, 1914–1935. “1951,” *Annual Report of the*

- Board of Governors of the Federal Reserve System* (1951). <https://fraser.stlouisfed.org/title/?id=117#!2408>, accessed on January 24, 2015.
71. The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/ws/index.php?pid=14083>, accessed October 5th, 2014.
  72. The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/ws/index.php?pid=14418>, accessed October 5th, 2014.
  73. The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/ws/index.php?pid=14172&cst=Truman&st1>, accessed October 5th, 2014.
  74. Dupuy and Dupuy. *Encyclopedia of Military History*, 1250–1251.
  75. Dupuy and Dupuy. *Encyclopedia of Military History*, 1251.
  76. Mao Tse Tung. “Our Great Victory in the War to Resist U.S. Aggression and Aid Korea and Our Future Tasks”, September 12th, 1953, *Selected Works of Mao Tse Tung*, (Beijing: Foreign Languages Press), 1977, 115–118; Zhang. “Mao’s Military Romanticism”, 12.
  77. James R. Schlesinger. *The Political Economy of National Security: A Study of the Economic Aspects of the Contemporary Power Struggle*, (London: Atlantic Books), 98–100.
  78. Schlesinger. *The Political Economy of National Security*, 101–102.
  79. United States. Bureau of the Census. “Volume 2” in *Historical Statistics of the United States: Colonial Times to 1970* (1975). <https://fraser.stlouisfed.org/title/?id=237#!5808>, accessed on January 6, 2015.
  80. United States. Bureau of the Census. “Volume 2” in *Historical Statistics of the United States: Colonial Times to 1970* (1975). <https://fraser.stlouisfed.org/title/?id=237#!5808>, accessed on January 6, 2015.
  81. United States. Bureau of the Census. “Volume 2” in *Historical Statistics of the United States: Colonial Times to 1970* (1975). <https://fraser.stlouisfed.org/title/?id=237#!5808>, accessed on January 6, 2015.
  82. Meltzer. *A History of the Federal Reserve*, 702, 707–712; Miller, *Funding Extended Conflicts*, 41; Rockoff. *America’s Economic Way of War*, 249–251.
  83. United States. Bureau of the Census. “Volume 2” in *Historical Statistics of the United States: Colonial Times to 1970* (1975). <https://fraser.stlouisfed.org/title/?id=237#!5808>, accessed on January 6, 2015.
  84. Zhang, *Economic Cold War*, 111–112, 139.

## The Never Ending Nightmare: Resourcing the Vietnam War

### ENDS

#### *Pre-War Political Culture*

Following the end of the Korean War, American grand strategy took a number of twists and turns as different administrations took power. Dwight D. Eisenhower was elected president in 1952 and immediately began making plans for exiting the Korean morass. Upon winning reelection in a landslide four years later,<sup>1</sup> he was immediately bombarded with criticism from both sides of the aisle. Given the substantial budget surplus generated that year, Republicans on Capitol Hill demanded big cuts in taxes and spending as well even if this meant a lower level of military preparedness. Democrats, by contrast, argued that his efforts to maintain a lean defense budget by restraining growth in the “military-industrial complex” had created a “missile gap” with the Soviet Union.<sup>2</sup> However, Eisenhower, based on the experience of Korea, saw how the country turned away from higher military spending if the conflict was perceived to be stalemated; to that end, he attempted to educate the American public of the necessity of longer term defense budgets in order to meet national security needs as opposed to the massive increases in taxes and subsequent deficits caused by unanticipated and immediate cri-



ses. These spikes in taxes and spending caused inflation to skyrocket if not controlled; otherwise, the net effect might be victory on the battlefield at the expense of the economy.<sup>3</sup>

Eisenhower formally announced the Eisenhower Doctrine in January 1957 under which “a country could request American economic assistance and/or aid from U.S. military forces if it was being threatened by armed aggression from another state.”<sup>4</sup> This doctrine was formulated in response to increased Arab hostility toward the West following the Suez Crisis of 1956. On July 26, 1956, Egyptian President Gamal Abdel Nasser announced the nationalization of the Suez Canal Company. The company, a joint venture between the French and British governments, had run the canal’s operations since its construction in 1869. The nationalization was the culmination of long simmering tensions between the Europeans, anxious to hold on to some vestige of their political influence, and Nasser, who saw British and French opposition as emblematic of imperialist policy to retain part of their existing colonial empires in the Middle East. The United States was caught in between, on the one hand, wanting to preserve NATO unity in the face of the heels of the formation of the Soviet dominated Warsaw Pact in 1955 and on the other, its denunciation of the Soviet invasion of Hungary that very same week as an attempt to establish a colonial empire of its own in Eastern Europe.<sup>5</sup>

The administration attempted to broker an agreement between the sides but unbeknownst to Eisenhower, the British and French had entered into secret talks with the Israelis to launch a surprise attack on the Egyptian forces deployed along the canal. On October 29, 1956, the Israelis attacked across the Sinai Peninsula, advancing to within ten miles of the canal. The French and British landed their own forces a few days later under the pretext of maintaining safe passage through the canal. The United States applied political pressure and the threat of financial warfare to both France and Britain by voting for resolutions condemning the military intervention while at the same time essentially blackmailing the British into withdrawing by using its dominant voting privileges at the IMF to deny Britain emergency loans. The British treasury, believing financial collapse inevitable, prevailed on Prime Minister Anthony Eden, who had replaced Winston Churchill at the helm of the government, to back down, which he did on November 7, 1956, leaving his forces, who also exercised operational command over French troops, stranded halfway down the canal.<sup>6</sup>

Eisenhower also placed strong emphasis on the use of nuclear weapons in order to deter the Soviet Union in Europe while at the same time reducing the size of the Army and Navy in order to save money and reduce the federal budget deficit. As Eisenhower left office, the new Kennedy administration, after a razor thin victory in the general election, took a much different approach to foreign policy. Seeing his predecessor's policy as "stultified, slow moving, overly reliant on brinkmanship and massive retaliation, and complacent," the young and vigorous Kennedy instead opted for delegating policy power to White House and NSC staffers while also mounting a more determined effort to engage the newly emerging countries in Asia, Africa, and Latin America who were only just beginning to throw off the shackles of colonialism. This would result in several foreign policy setbacks.<sup>7</sup> First, Kennedy agreed to launch the Bay of Pigs operation seeking to overthrow the communist regime of Fidel Castro in Cuba; the military action failed when promised American air support never materialized. Second, Kennedy, then 44 years old, seemed out of his league after meeting with veteran Soviet leader Nikita Khrushchev at the June 1961 Vienna Summit. Finally, Kennedy opted not to confront the specter of communism in Laos, as Eisenhower advocated, but rather in South Vietnam instead. As such, the United States lost the ability to use South Vietnam as a backup rather than becoming the front line in the battle to stop communism in Southeast Asia. Kennedy also drove the reorientation of U.S. military strategy toward counterinsurgency; "wars of limited means replaced wars of limited objectives". To his credit, he faced down the Soviets during the Cuban Missile Crisis in October, 1962. However, Kennedy's assassination in Dallas on November 22, 1963, meant he did not live long enough to see the implementation of his doctrine in Southeast Asia.<sup>8</sup>

The Chinese and Vietnamese made different assumptions than the Americans in the early 1960s. For its part, China still saw the United States as its primary threat (although this would change by the end of the decade following a low-intensity shooting war along the Ussuri River, the formal border between the Soviet Union and China). While they looked to support the North Vietnamese in their effort to unify the country under communist rule, they were equally determined to check any strategy for domination of Laos and Cambodia on the part of the Hanoi government. As for the Vietnamese, they were not willing to submit to either Soviet or Chinese domination. However, given their need for outside support in

any war in the south, they were careful not to be dragged into the nascent Sino-Soviet split either, where they had no significant interests. Eventually, however, Mao Tse Tung would drive them into the arms of the Soviets based on his own perceptions of China's place on the world stage, in particular, his desire for China to be seen as the standard bearer of anti-imperialist revolution anywhere in the world.<sup>9</sup>

Upon his ascent to the presidency upon Kennedy's death, former Vice President Lyndon B. Johnson first invoked his own doctrine on September 29, 1967, following the American intervention in the Dominican Republic by declaring

“There are questions about this difficult war that must trouble every really thoughtful person. I am going to put some of these questions. And I am going to give you the very best answers that I can give you. First, are the Vietnamese—with our help, and that of their other allies—really making any progress? Is there a forward movement? The reports I see make it clear that there is. Certainly there is a positive movement toward constitutional government. Thus far the Vietnamese have met the political schedule that they laid down in January 1966. The people wanted an elected, responsive government. They wanted it strongly enough to brave a vicious campaign of Communist terror and assassination to vote for it. It has been said that they killed more civilians in 4 weeks trying to keep them from voting before the election than our American bombers have killed in the big cities of North Vietnam in bombing military targets. On November 1, subject to the action, of course, of the Constituent Assembly, an elected government will be inaugurated and an elected Senate and Legislature will be installed. Their responsibility is clear: To answer the desires of the South Vietnamese people for self-determination and for peace, for an attack on corruption, for economic development, and for social justice.”<sup>10</sup>

## WAYS

### *Pre-War Military Strategy*

From the viewpoint of military and operational strategy, the United States, despite Kennedy's fascination with counterinsurgency, planned to fight any conflict in Southeast Asia as it would in Europe; that is, by relying on superior resources and above all, firepower. As a result, Johnson chose to devote substantial conventional forces to the Vietnam conflict. However, as the Army, in particular, would find out, it was employing the wrong strategy in the wrong place.<sup>11</sup>

## MEANS

*Pre-War Economic Culture*

The years following the end of the Korean War had generally been prosperous ones for the United States. There were only two economic downturns of any consequence during this time frame, both of which lasted less than one year; however, one occurred shortly after Kennedy took office in 1960 (Table 6.1).<sup>12</sup>

To that end, in his annual State of the Union speech on January 30, 1961, Kennedy noted

“The present state of our economy is disturbing. We take office in the wake of seven months of recession, three and one-half years of slack, seven years of diminished economic growth, and nine years of falling farm income. Business bankruptcies have reached their highest level since the Great Depression. Since 1951 farm income has been squeezed down by 25 percent. Save for a brief period in 1958, insured unemployment is at the highest peak in our history. Of some five and one-half million Americans who are without jobs, more than one million have been searching for work for more than four months. And during each month some 150,000 workers are exhausting their already meager jobless benefit rights.

In short, the American economy is in trouble. The most resourceful industrialized country on earth ranks among the last in the rate of economic growth. Since last spring our economic growth rate has actually receded. Business investment is in a decline. Profits have fallen below predicted levels. Construction is off. A million unsold automobiles are in inventory. Fewer people are working—and the average work week has shrunk well below 40 hours. Yet prices have continued to rise—so that now too many Americans have less to spend for items that cost more to buy.”<sup>13</sup>

Table 6.1

<i>Peak date</i>	<i>Trough date</i>	<i>Peak to trough months</i>
8/1/1957	4/1/1958	8
4/1/1960	2/1/1961	10
Average		9

### *Pre-War Fiscal Policy*

Individual income and other internal taxes provided approximately 77% of federal government revenue on average between the end of the Korean War and the commencement of the Vietnam conflict. From an expenditure standpoint, outlays on national defense as a percentage of expenditures declined considerably from 1954 to 1960 before trending upward once again during the early years of the Kennedy administration. What is interesting about this table is that the Army and Navy bore the brunt of these reductions both in raw numbers and percentages, reflecting the Eisenhower administration's emphasis on nuclear weapons, by default the province of the Air Force through its control of the Intercontinental Ballistic Missile (ICBM) and continental bomber forces, which continued to see budget increases throughout the period. Overall, the United States fluctuated between budget surpluses and deficits prior to the Vietnam conflict (Tables 6.2, 6.3, and 6.4).<sup>14,15,16</sup>

### *Pre-War Monetary Policy*

As the Korean War wound down in 1953, the Federal Reserve released its Annual Report, noting

**Table 6.2**

<i>Year</i>	<i>Individual income taxes (%)</i>	<i>Other internal revenue (%)</i>	<i>Customs (%)</i>	<i>Social insurance income taxes (%)</i>	<i>Excise taxes (%)</i>	<i>Estate taxes (%)</i>	<i>Federal reserve earnings (%)</i>	<i>Other (%)</i>	<i>Total receipts (%)</i>
1954	43%	28%	1%	13%	13%	2%	0%	0%	100%
1955	45%	28%	1%	12%	13%	2%	1%	-1%	100%
1956	44%	30%	1%	14%	13%	2%	1%	-5%	100%
1957	46%	30%	1%	15%	13%	2%	1%	-8%	100%
1958	44%	31%	1%	16%	13%	2%	1%	-8%	100%
1959	44%	33%	1%	17%	13%	2%	1%	-10%	100%
1960	46%	32%	1%	13%	17%	2%	1%	-12%	100%
1961	45%	34%	1%	19%	12%	2%	1%	-13%	100%
1962	43%	35%	1%	20%	12%	2%	1%	-14%	100%
1963	44%	31%	1%	15%	13%	2%	1%	-7%	100%
1964	44%	31%	1%	15%	13%	2%	1%	-7%	100%
Average	44%	31%	1%	15%	13%	2%	1%	-8%	100%

Table 6.3

<i>Year</i>	<i>Department of the Army (%)</i>	<i>Department of the Navy (%)</i>	<i>Department of the Air Force (%)</i>	<i>Defense wide (%)</i>	<i>Veterans compensation (%)</i>	<i>Interest on the public debt (%)</i>	<i>Other (%)</i>	<i>Total outlays (%)</i>
1954	18%	16%	22%	1%	4%	9%	31%	100%
1955	13%	14%	24%	1%	4%	9%	35%	100%
1956	12%	14%	24%	1%	4%	10%	36%	100%
1957	11%	13%	24%	1%	4%	9%	37%	100%
1958	11%	13%	22%	1%	4%	9%	40%	100%
1959	10%	13%	21%	1%	4%	8%	43%	100%
1960	10%	13%	21%	1%	4%	10%	41%	100%
1961	10%	13%	20%	1%	4%	9%	43%	100%
1962	11%	12%	19%	1%	3%	9%	44%	100%
1963	10%	13%	19%	2%	3%	9%	45%	100%
1964	10%	12%	17%	2%	3%	9%	46%	100%
Average	12%	13%	21%	1%	4%	9%	40%	100%

**Table 6.4**

<i>Year</i>	<i>Total receipts (\$)</i>	<i>Total outlays (\$)</i>	<i>Surplus/Deficit (\$)</i>
1954	\$69,719,000	\$70,889,744	(\$1,170,744)
1955	\$65,451,000	\$68,509,184	(\$3,058,184)
1956	\$74,547,000	\$70,460,329	\$4,086,671
1957	\$79,990,000	\$76,740,583	\$3,249,417
1958	\$79,636,000	\$82,575,093	(\$2,939,093)
1959	\$79,249,000	\$92,104,459	(\$12,855,459)
1960	\$92,492,000	\$92,223,354	\$268,646
1961	\$94,389,000	\$97,794,579	(\$3,405,579)
1962	\$99,676,000	\$106,812,594	(\$7,136,594)
1963	\$106,560,000	\$111,311,144	(\$4,751,144)
1964	\$112,662,000	\$118,563,708	(\$5,901,708)
Total	\$954,371,000	\$987,984,771	(\$33,613,771)
Average	\$86,761,000	\$89,816,797	(\$3,055,797)

“Nineteen fifty-three was another year of record production and price stability for the national economy and of further advance in the economic strength of the free world. Domestic conditions during much of the year were nevertheless characterized by important realignments and adjustments in production, employment, and the credit markets. With the purpose of contributing to national stability and growth, monetary policy was promptly and flexibly adapted to these shifts of economic forces. Additional steps were taken to promote more self-reliant financial markets.”<sup>17</sup>

By 1964, the Board of Governors of the Federal Reserve in its Annual Report noted:

“At home, the economy extended its vigorous upward surge for the fourth successive year without undergoing cyclical interruption or showing much evidence of overheating or of important imbalances. By the end of 1964, the expansion from the cyclical trough in February 1961 had become one of the longest periods of advance on record. In the past, periods of cyclical expansion have rarely endured for more than 3 years. Furthermore, the economy was still expanding, and commodity prices and production costs were continuing to be relatively stable.”<sup>18</sup>

### *Pre-War Debt Policy*

Following the end of the Korean conflict, one might have expected to see U.S. government debt levels decrease but this was not the case. Spending

in the “other” category associated with such programs as Social Security and eventually Medicare more than doubled as expenditures associated with these programs accelerated toward the mid-1960s; as such, even though defense spending decreased, debt levels increased to cover these increased expenditures. This increase was driven by Johnson’s “Great Society” policy, designed to improve the lives of all American, in particular, those in the lowest economic strata of the country. Johnson would soon learn, however, a basic law of economics: generally speaking, a government can fund guns (national security) or butter (social programs) but not both for any sustained period of time (Table 6.5).<sup>19, 20</sup>

### *Pre-War Mobilization Policy*

Prior to departing office in 1960, Dwight D. Eisenhower delivered his final address to the country. Most notably, he warned Americans of the growth of what he referred to as the “military industrial complex” that followed the end of World War Two.

“A vital element in keeping the peace is our military establishment. Our arms must be mighty, ready for instant action, so that no potential aggressor may be tempted to risk his own destruction. Our military organization today bears little relation to that known by any of my predecessors in peacetime, or indeed by the fighting men of World War II or Korea. Until the latest of our world conflicts, the United States had no armaments industry. American makers of plowshares could, with time and as required, make

**Table 6.5**

<i>Year</i>	<i>Interest on the public debt (\$)</i>	<i>Total debt (\$)</i>	<i>Interest as a % of total debt</i>
1954	\$6,382,486	\$271,259,599	2.4%
1955	\$6,370,362	\$274,374,222	2.3%
1956	\$6,786,599	\$272,750,612	2.5%
1957	\$7,244,193	\$270,527,171	2.7%
1958	\$7,606,774	\$276,343,217	2.8%
1959	\$7,592,769	\$284,705,907	2.7%
1960	\$9,179,589	\$286,320,760	3.2%
1961	\$8,957,242	\$288,970,938	3.1%
1962	\$9,119,760	\$298,200,822	3.1%
1963	\$9,895,304	\$305,859,632	3.2%
1964	\$10,665,858	\$311,712,899	3.4%
Average	\$8,163,721	\$285,547,798	2.8%



swords as well. But now we can no longer risk emergency improvisation of national defense; we have been compelled to create a permanent armaments industry of vast proportions. Added to this, three and a half million men and women are directly engaged in the defense establishment. We annually spend on military security more than the net income of all United States corporations. This conjunction of an immense military establishment and a large arms industry is new in the American experience.

The total influence—economic, political, even spiritual—is felt in every city, every State house, every office of the Federal government. We recognize the imperative need for this development. Yet we must not fail to comprehend its grave implications. Our toil, resources and livelihood are all involved; so is the very structure of our society. In the councils of government, we must guard against the acquisition of unwarranted influence, whether sought or unsought, by the military industrial complex. The potential for the disastrous rise of misplaced power exists and will persist. We must never let the weight of this combination endanger our liberties or democratic processes. We should take nothing for granted. Only an alert and knowledgeable citizenry can compel the proper meshing of the huge industrial and military machinery of defense with our peaceful methods and goals, so that security and liberty may prosper together.”<sup>21</sup>

Kennedy, following his election, sought to professionalize military operations by bringing some continuity to what many believed to be an out of control situation. The infighting between the services over roles, missions, and perhaps most importantly, resources, had damaged American military capabilities in his opinion, although not to the point where any foe, including China and the Soviet Union, posed a serious conventional threat (the nuclear side of the equation was an altogether different matter). To that end, Kennedy brought Robert S. McNamara into his administration as his Secretary of Defense. McNamara became the longest serving Secretary in history, occupying the office from 1961 to 1968. A former president of the Ford Motor Company, he is perhaps most famous for his introduction of the principles of systems analysis into the formulation of public policy, a field now referred to as policy analysis.

The Merriam-Webster dictionary defines systems analysis as

“the act, process, or profession of studying an activity (as a procedure, a business, or a physiological function) typically by mathematical means in order to define its goals or purposes and to discover operations and procedures for accomplishing them most efficiently.”<sup>22</sup>

The net effect of using such an approach was the development and implementing of the Programming, Planning, and Budgeting System

(PPBS), now known as the Programming, Planning, Budgeting, and Execution System (PPBES), which helped to formalize the role of the defense industrial base in American national security planning.<sup>23</sup> While an exceptionally good program for preparing for war, the United States would learn to its regret that the PPBS was not designed to fight the war itself.<sup>24</sup>

### CHRONOLOGY OF POLITICAL, STRATEGIC/OPERATIONAL, AND RESOURCE MANAGEMENT EVENTS

Earlier, in November 1953, the French suffered a catastrophic defeat at the hands of the Viet Minh, the northern forebears of the Viet Cong (VC), who were native southerners, following the siege of Dien Bien Phu. The following May, the Conference on Far Eastern Affairs, composed of nineteen different countries, met in Geneva, Switzerland, to discuss the future of Indochina, in anticipation of a French withdrawal from the region. The participants agreed to divide the Tonkin and Annam regions along the seventeenth Parallel into North and South Vietnam, respectively, while providing Cambodia and Laos with the status of neutral independent states. The United States, anticipating future conflict in the region, accepted the agreements but refused to sign them, instead reserving the right to intervene in the event the agreements were breached by any party while supplying friendly governments in the area with training, equipment, and economic assistance.<sup>25</sup>

That fear came to fruition in 1956, when the VC began waging a low-intensity insurrection against the Saigon government, aided and abetted by North Vietnam and China; in response, the U.S. Military Assistance Advisory Group (MAAG) was established on April 28, 1956. Following an aborted military coup against the government of Ngo Dinh Diem, the United States agreed to support Diem's regime against VC offensive operations. The first U.S. support units began arriving in December 1961 and on February 8, 1962, the U.S. Military Assistance Command (MACV) was established. However, in November 1963, the Diem government was overthrown, resulting in the death of Diem and his brother, Ngo Dinh Nhu, at the hand of the coup plotters (Fig. 6.1).<sup>26,27</sup>

#### 1964

On January 30, 1964, the South Vietnamese government was again overthrown in a military coup d'état. A few days later, the VC launched an offensive in Tay Ninh province and in the Mekong Delta, apparently look-



Fig. 6.1

ing to take advantage of the political turmoil in Saigon. By August 1964, the United States had significantly expanded its military presence both on land and off the coast of South Vietnam. On August 2, 1964, three North Vietnamese torpedo boats attacked the destroyer USS Maddox (although the nature of the incident remains somewhat hazy even to this day); the

Maddox, in concert with American naval aviation, returned fire and sank the torpedo boats. Two days later, a similar incident occurred. On August 7, 1964, Congress passed the Gulf of Tonkin resolution, authorizing the president “to take all necessary measures to repel any armed attack against the forces of the United States and to prevent further aggression.”<sup>28</sup>

Meanwhile, given that one of Kennedy’s (and later Johnson’s) major focuses upon assuming office was a rationalization and reduction of corporate individual taxes, Congress passed the Revenue Act of 1964 in February 1964, a bi-partisan measure that saw individual income taxes reduced by about 20%; marginal tax rates previously in the 20–91% range were likewise reduced to 14–70%, respectively.<sup>29</sup> The 1964 Annual Report of the Secretary of the Treasury stated

“Net administrative budget receipts for the fiscal year 1964 totaled \$89.5 billion, an increase of \$3.1 billion over the preceding year, due principally to accelerated collections of corporate taxes and increased collections of individual income taxes. Net administrative budget expenditures for the year amounted to \$97.7 billion, an increase of about \$5.0 billion over fiscal 1963. The administrative budget deficit for fiscal 1964 was \$8.2 billion. Public debt outstanding at the end of the fiscal year was \$311.7 billion, an increase of about \$5.9 billion over that of a year ago.”<sup>30</sup>

This relatively stable financial situation would be altered dramatically by 1969 as the war heated up and Johnson attempted to finance his military and social programs simultaneously.

### 1965

By January 1965, American planners had formulated a basic operational plan for a ground war in Vietnam consisting of three stages. The first called the commitment of American and allied forces necessary “to halt the losing trend” by the end of the year. The second was to take the offensive with these forces “in high priority areas” to destroy enemy formations and re-establish an effective pacification program by the first half of 1966. The third phase of the plan, in the event the VC persisted, planned for the destruction of their forces and base areas during a period of a year to a year and a half following the conclusion of the second phase of the plan.<sup>31</sup> The North Vietnamese likewise put together a battle plan for 1965. This called for holding attacks near the Demilitarized Zone

(DMZ) and around Saigon while simultaneously mounting its main attack in the central part of the country in order to divide South Vietnam in two before the United States could bring its massive resources to bear in support of the Saigon government.<sup>32</sup> The VC also did not wait for the United States to implement its operational plan. On February 7, 1965, the VC attacked U.S. support installations near Pleiku Air Base in central South Vietnam. Johnson, who considered the attacks “a deliberately hostile act,” immediately called for a retaliatory strike against North Vietnam while ordering all U.S. dependents out of the country. The next day, the United States and South Vietnamese air forces struck enemy bases just north of the DMZ. The strikes were the first in a limited series of attacks against specially selected military targets in the north. Exactly one month later, the first American ground troops in theater, the Ninth Marine Amphibious Brigade, landed at Da Nang, in Quang Tri Province (Fig. 6.2).<sup>33</sup>

Meanwhile, on June 28, 1965, the Americans launched its first major combat operation of the war when the 173rd Airborne Brigade, newly arrived from the United States, airlifted two Army of the Republic of Vietnam (ARVN) battalions and two battalions of the 503rd Infantry Brigade into the battle zone at Bien Hoa, some twenty miles northeast of Saigon. The Americans followed this up in mid-August 1965, when 5,000 Marines cornered a VC regiment in the Chu Lai region of Quang Ngai province.<sup>34</sup> The North Vietnamese still continued to hold out hope of pinning the American and South Vietnamese forces down while mounting a major attack across the center of the country for the express purpose of severing the country in two. However, in an effort to forestall this operation, the United States conducted its largest combat operations to date between October 23 and November 20, 1965, in the Battle of the Ia Drang Valley. The First Cavalry Division (Airmobile), after a bloody firefight, defeated a large force of North Vietnamese regulars who had gathered in western Pleiku province in anticipation of a drive east to the coast.<sup>35</sup>

In the meantime, C. Douglas Dillon released his 1965 Annual Report of the Secretary of the Treasury stating

“Therefore, the Presidents January 1966 budgetary recommendations combined strict economy in nondefense expenditure programs with proposals for further tax action to augment the increases in social security and Medicare taxes already going into effect at the beginning of 1966. Prompt

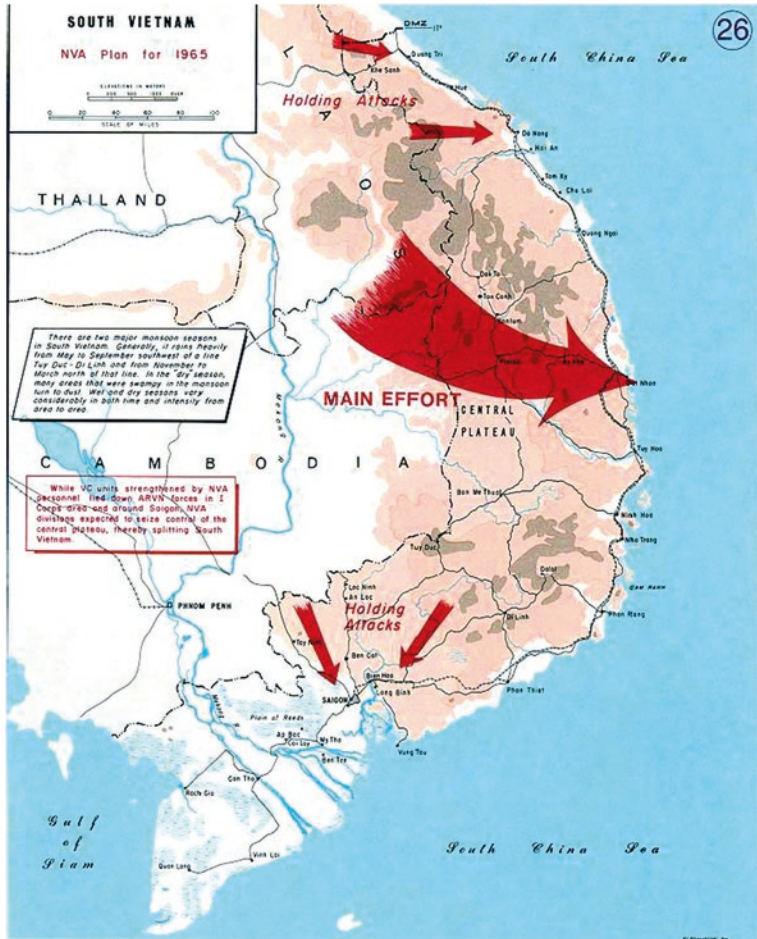


Fig. 6.2

congressional enactment of that further tax action, in almost the exact form requested, was an impressive demonstration of the flexibility of fiscal policy, and of the willingness of the Congress to act promptly to prevent overstraining the economy. Whether further fiscal action would be required was uncertain, but the President had made it amply clear in his Budget Message, that:

if ... events in Southeast Asia so develop that additional funds are required, I will not hesitate to request the necessary sums. And should that contingency arise, or should unforeseen inflationary pressures develop, I (Kennedy) will propose such fiscal actions as are appropriate to maintain economic stability.”

On the taxation front, the report also noted that

“Tax reduction and reform was again a central element in overall economic policy. Forward impetus was provided to the economy by the second-stage tax reductions of the Revenue Act of 1964, which has convincingly demonstrated its success, and by the first stage of the Excise Tax Reduction Act of 1965, signed into law by President Johnson on June 21, 1965...the tax repeals or reductions under the final legislation amounted to \$4.7 billion at fiscal 1966 levels of income, rather than the \$3.9 billion recommended by the President.”<sup>36</sup>

The Federal Reserve, under the leadership of Chairman William Martin, likewise released its Annual Report for 1965 stating

“The fifth year of sustained expansion in the U.S. economy was one of unusually vigorous expansion in demand, output, and employment. Growth was especially marked in the fourth quarter, and at the year-end the economy was operating closer to full potential in terms of manpower and industrial resources than at any other time in nearly a decade. The economy also was in greater danger of damaging inflation than it had been since the current long upswing began in early 1961. In contrast to the situation at the beginning of 1965, when national economic attention was still being focused on the need to expand employment and to accelerate economic growth, toward the end of 1965 attention was being directed toward the need to contain demand as war in Viet Nam was beginning to add to pressures already evident in the booming civilian economy.”<sup>37</sup>

## 1966

Beginning in 1966, as the United States deployed more forces in theater, MACV began conducting more search and destroy operations in conjunction with their South Vietnamese counterparts. Perhaps more importantly, the United States initiated a more aggressive air war against North Vietnamese targets. On April 12, 1966, U.S. Air Force B-52 s carried out their first strikes of the war, in this case, against North Vietnamese infiltration routes near the Laotian border. On June 29, 1966, U.S. forces conducted air raids against North Vietnamese oil installations located near the capital of Hanoi and the harbor facilities at Haiphong.<sup>38</sup>

Meanwhile, Chairman Martin released the Federal Reserve Board's annual report for 1966, noting that

“1966 presented to monetary policy the challenge of coping first with a too-exuberant upsurge in economic activity, and later with a less ebullient economic outlook. The expansionary forces in the economy, which had gathered momentum after mid-1965, accelerated even more rapidly later that year and into 1966—with demands for goods, services, and credit expanding faster than resource availability and financial savings. The convergent pressures on resources resulted in a strong and pervasive rise in costs and prices—a rise that threatened the life of the economic expansion—and in a further larger rise in U.S. imports, which greatly reduced our surplus on international trade transactions. Before the year ended, however, final demands for goods and services were expanding at a more moderate pace. Monetary policy therefore shifted toward less restraint on bank credit expansion, and interest rates began to decline from the high levels attained during the year.”<sup>39</sup>

### 1967

By this point in the war, the United States and its South Vietnamese allies were conducting major conventional search and destroy operations against the Viet Cong. One example of this was Operation Cedar Falls between January 4 and 24, 1967, in an area called the “Iron Triangle.” The first and twenty fifth Infantry Divisions, accompanied by the 173rd Airborne Brigade, the eleventh Armored Cavalry Regiment, and associated ARVN forces, mounted a major operation against a VC regional command headquarters and its supporting base area. Meanwhile, on January 10, 1967, against a backdrop of mounting anti-war protest, Johnson presented his Annual State of the Union address to the nation. In it, he indirectly acknowledged that his attempt to fund the war and his social programs simultaneously was failing, thus resulting in higher taxes.

“We shall continue on a sensible course of fiscal and budgetary policy that we believe will keep our economy growing without new inflationary spirals; that will finance responsibly the needs of our men in Vietnam and the progress of our people at home; that will support a significant improvement in our export surplus, and will press forward toward easier credit and toward lower interest rates. I recommend to the Congress a surcharge of 6 percent on both corporate and individual income taxes—to last for 2 years or for so



long as the unusual expenditures associated with our efforts in Vietnam continue. I will promptly recommend an earlier termination date if a reduction in these expenditures permits it. This surcharge will raise revenues by some \$4.5 billion in the first year.”<sup>40</sup>

However, the president’s call for increased taxes found little favor in Congress especially members of his own party such as Congressman Wilbur Mills (D-AR), the chairman of the House Ways and Means Committee, which initiated tax related legislation. Mills was skeptical of the Administration’s request, believing it insufficient to close the looming budget deficit, which would balloon from \$8.7 billion to just over \$25 billion between 1967 and 1968. He also took the administration to task on his perception of their lack of budget discipline—the federal government provided 45% of U.S. Gross Domestic Product (GDP) in World War Two, a number that had dropped to 16% by the outbreak of the Korean War; by 1967, federal government spending had increased by 25% to 20% percent of GDP.<sup>41</sup>

The United States continued to accelerate the pace of military operations as well, both quantitatively and geographically. Between February 22 and May 14, 1967, 22 U.S. and 4 ARVN battalions conducted major search and destroy operations against VC and North Vietnamese forces in Tay Ninh province and neighboring provinces north of Saigon situated along the Cambodian border.<sup>42</sup> Meanwhile, on May 29, 1967, Congress continued to appropriate funds for the war effort, although not without opposition from the Hill, in particular, from House Democrats who wanted domestic spending cuts. Johnson, however, saw this as an opportunity for Republicans cut appropriations for his “Great Society” policy.<sup>43</sup> On August 3, 1967, he made an impassioned plea for spending cuts, noting

“The Nation now faces these hard and inescapable facts for fiscal 1968:—Expenditures are likely to be between the January budget figure of \$135 billion and \$143.5 billion—as much as \$8.5 billion higher—depending upon the determination and ability of the Congress and the Executive to control expenditures. Revenues are now estimated some \$7 billion lower than in January, even with a 6% tax surcharge. These changes in the January budget estimates would result in a deficit of \$23.6 billion. Without a tax increase and tight expenditure control, the deficit could exceed \$28 billion. And that

does not include an estimated \$700 million higher cost of interest on the public debt that such a deficit would involve.”<sup>44</sup>

In the end, Johnson proposed a 10% surcharge on both corporate and individual taxes; meanwhile, Congress continued to appropriate funds for an increasingly unpopular war. Chairman Martin’s Federal Reserve’s Annual Report for 1967 noted

“The Federal Reserve followed a monetary policy of relative ease during most of 1967, but moved toward restraint in the final months of the year... Toward the end of the year, with the Federal budget continuing to be a major stimulative force in the economy, monetary policy became more restraining in an effort to dampen the inflationary price pressures that were accompanying renewed and rapid economic growth and to encourage improvement in the U.S. balance of payments position.”<sup>45</sup>

### *1968*

Things continued to go badly on both military and political fronts for the United States as 1968 dawned. Beginning on January 21, 1968, nearly 5000 Marines were pinned down and besieged by a communist force four times their number at the isolated outpost of Khe Sanh, in the northern province of Quang Tri. Not until April 15, 1968, was a force of 30,000 U.S. (mainly from the first Cavalry Division) and ARVN soldiers able to lift the siege. An even bigger disaster was to unfold in late January 1967 and early February 1968. On January 30 and February 1, 1968, a combined force of 50,000 North Vietnamese regulars and VC launched surprise attacks across South Vietnam, including the northern city of Hue and the capital of Saigon. House to house fighting ensued in Hue while enemy troops reached inside the perimeter of the U.S. embassy in Saigon. Although the operation was not a military success (the VC suffered such serious losses, it virtually ceased to a viable and effective military force), the surprise achieved by the Communist forces resulted in a considerable psychological victory that hardened American public opinion against the war (Fig. 6.3)<sup>46</sup>. On March 31, 1968, Johnson surprised many observers when he announced his intention not to run for re-election later in 1968, stating

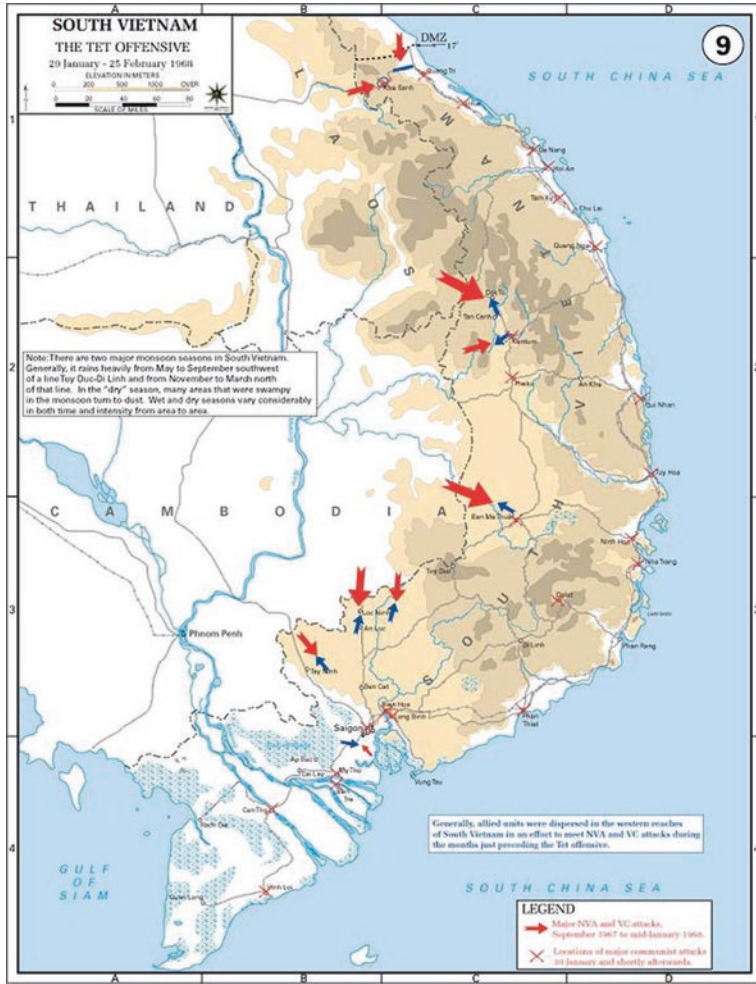


Fig. 6.3

“With America’s sons in the fields far away, with America’s future under challenge right here at home, with our hopes and the world’s hopes for peace in the balance every day, I do not believe that I should devote an hour or a day of my time to any personal partisan causes or to any duties other than the awesome duties of this office—the Presidency of your country.

Accordingly, I shall not seek, and I will not accept, the nomination of my party for another term as your President.”<sup>47</sup>

On May 10, 1968, formal peace negotiations between the United States and North Vietnam commenced in Paris (although the talks would drag on until the signing of a final peace treaty on January 23, 1973); meanwhile, on July 3, 1968, General Creighton Abrams replaced General William Westmoreland as the commander of MACV. On October 31, 1968, the United States ceased attacks on North Vietnam and a few days later, Richard Nixon defeated Senator Hubert Humphrey (D-MN) for the presidency.<sup>48</sup> Not long after his election, on May 14, 1969, Nixon announced the planned withdrawal of American troops from Southeast Asia in favor of a new policy called “Vietnamization” seeking to upgrade South Vietnamese military capabilities in order to facilitate the prosecution of the war.<sup>49</sup>

On December 9, 1968, Treasury Secretary Henry Fowler released the 1968 Annual Report of the Secretary of the Treasury stating

“Enactment of the fiscal restraint package in late June marked a significant change in the national financial position. The budget deficit, which had become excessively large, was turned decisively in the direction of balance. Internationally, the enactment of fiscal restraint greatly strengthened foreign confidence in the dollar. Our balance of payments has shown steady improvement during the course of the year and a small surplus was actually registered on the liquidity basis during the third quarter—the first such quarterly surplus in 3 years.”<sup>50</sup>

The 1968 Federal Reserve Annual Report likewise noted

“In 1968 restraint of inflationary pressures was the principal economic problem facing monetary policy. Federal Reserve efforts to curb such pressures, to foster a sustainable rate of economic expansion, and to help attain reasonable equilibrium in the balance of payments were aided by enactment in June of a package of fiscal restraint, including a 10 per cent surtax on personal and corporate income and certain constraints on Federal spending. As fiscal restraint was added to the monetary fiscal policy mix, the rate of expansion in economic activity began to moderate in the second half of the year. But the rate of economic expansion remained higher than had generally been expected, and higher than appeared desirable in view of the need to restrain price advances and reduce inflationary expectations. As a result,

monetary policy, which had become somewhat easier in the summer, moved toward greater restraint in the autumn. And as the year drew to a close, the banking system was again under reserve pressure, and most interest rates had reached new highs.”<sup>51</sup>

### 1969

By 1969, the war had settled into a series of small unit actions involving conventional U.S. forces and their North Vietnamese counterparts, with no significant gains by either side. In the meantime, the drumbeat for withdrawal continued to beat louder not just on college campuses but in American streets as well. In the meantime, the financial picture was equally dismal. The 1969 Annual Report of the Secretary of the Treasury, released on February 4, 1970, stated

“The most immediate domestic problem facing the incoming administration was an accelerating rate of inflation. Already, rapidly rising prices had eroded the purchasing power of millions of Americans who counted on their Government to provide sound money. Internationally, the dollar remained strong but continued inflation at home would eventually undercut the position of the dollar abroad. Therefore, the situation in the early part of calendar year 1969 clearly required the firm application of fiscal and monetary restraint. Expenditure restraint and congressional approval of the administration tax recommendations were counted on to produce a budget surplus in fiscal 1970—estimated during the summer at just under \$6 billion. Despite deep cuts in controllable areas of expenditure, it unfortunately proved impossible to achieve a surplus of this size. Overruns in uncontrollable areas pushed expenditures higher and trimmed the estimated surplus for the fiscal year down to \$1.5 billion. Even so, fiscal policy had exercised an appreciable degree of restraint throughout the year.”<sup>52</sup>

Chairman Arthur Burns, who had replaced William Martin, released the Federal Reserve’s Annual Report for 1969, on May 6, 1970, likewise stating

“During 1969 the Federal Reserve moved to a very restrictive monetary policy in an effort to slow the expansion of aggregate money demands in the

economy and to dissipate deeply rooted expectations of continuing inflation...The policy of monetary restraint was conducted against a background of generally taut fiscal policy, although the over-all degree of fiscal restraint slackened somewhat during the year. Moreover, at certain times when the Congress was deliberating over various items of tax legislation—notably in the spring and again near the year-end—prospects for continued fiscal restraint became quite uncertain. Nevertheless, Federal purchases of goods and services were considerably less expansive than in 1968, and a significant slowing in total economic activity developed as the year progressed, even though price and wage increases remained sizable and inflationary psychology persisted.”<sup>53</sup>

By July 1969, the formal withdrawal of American forces commenced. Nixon continued to mount sporadic operations against the North such as intensified air raids, an abortive offensive into Cambodia between April and June 1969, and mining North Vietnamese harbors such as Haiphong but for all intents and purposes, American involvement in combat operations ceased as of August 12, 1972, when the last U.S. ground forces were withdrawn. Meanwhile, the war continued to drag on for another three years before South Vietnamese forces, by now deprived of much needed U.S. logistical support, collapsed under the overwhelming pressure of their northern enemies.<sup>54</sup>

### 1970

On April 1, 1970, sensing the Nixon administration had enough of the conflict, the North Vietnamese launched another spring offensive across South Vietnam although the attack ground to a halt due to logistical difficulties. Still, the attack proved the resilience of the North Vietnamese and their resolve to outlast the Americans and their South Vietnamese allies. The United States launched one last abortive offensive of its own into Cambodia later that month but withdrew all of its forces by June while intensifying air strikes against North Vietnamese. However, by August 1971, responsibility for all ground combat was turned over to the South Vietnamese, followed by the end of the presence of American troops a year later. As mentioned earlier, the war would drag on for another three years before the final Communist victory in 1975.<sup>55</sup>

## ENDS

As pertains to Mead's model of American political philosophy. I argue that the Jacksonian approach best exemplifies the United States approach to the Vietnam War, given the Jacksonians "believed that the most important goal of the U.S. government in both foreign and domestic policy should be the physical security and economic well-being of the American people...Jacksonians believe that the United States should not seek out foreign quarrels but when other nations start war with the United States...there is no substitute for victory." Certainly, Johnson's focus on his "Great Society" program as a way to better all Americans economically, but most importantly those with a lower standard of living, fit the first part of the Jackson philosophy. On the foreign policy front, while the United States was not directly attacked prior to the war (if one discounts the murky circumstances regarding the attack on the USS Maddox in the Tonkin Gulf), one can make a very strong argument, as I do, the American political and military establishment intended to seek total victory in Southeast Asia, as evidenced by the numbers of troops and expenditure of resources in the region in the decade from the early 1960s to the early 1970s.

America's involvement in Southeast Asia in terms of Beaufre's model might be best described as *Ends Limited, Means Abundant* strategy— "when resources are abundant the mere threat of force may be sufficient to satisfy objectives, if vital enemy interests are not imperiled." The United States entered the conflict believing, much as it did in Korea, by bringing to bear superior resources within the context of a limited war scenario, it could avoid escalation outside of Southeast Asia, even if the overall goal was to halt the spread of communist inspired liberation movements in Asia, Africa, and Latin America. However, the United States failed to achieve its strategic and grand objectives for a number of reasons.

To begin with, there were three distinct periods of U.S. grand strategy between 1949 and 1968. During the first (1949–1962), basic American policy was to resist communist aggression wherever and whenever encountered. Phase two (1962–1968) saw the embrace of counterinsurgency in Asia, Latin America, and Africa as a way of countering Soviet and Chinese efforts to win these new governments over to the communist side. Finally, the third phase (post 1968) consisted of preserv-

ing remaining American commitments.<sup>56</sup> To that end, Johnson failed to mobilize the American people, “invoking the national will” as it were, in support of this grand strategy. There was never any declaration of war nor did the military, in particular the Army, inform the president of the need to get the assent of the American people before committing the military to the conflict.<sup>57</sup>

As for the North Vietnamese and their VC allies, Beaufre’s *Ends Critical, Means Limited* strategy— “when objectives are critical, but resources are limited and freedom of action is abridged, piecemeal actions that combine direct and indirect pressures with controlled military force may be effective.” This approach favors those that are in a strong defensive position and are content to proceed slowly,” seems most applicable. The North Vietnamese on the other hand, while they could not match the military resources of the United States, had every reason to believe that morale was the weak link in the American grand strategic approach to the conflict and that by simply not losing, they could win in the long run. Even with the reorientation of American military strategy away from nuclear weapons and the policy of massive retaliation as employed by the Eisenhower administration toward Kennedy’s fascination with the doctrine of counterinsurgency, the North Vietnamese believed American public opinion would soon tire of the war, especially if casualties were heavy, exactly what happened. Moreover, American grand strategy was now dominated by civilian academicians employed at think tanks like the RAND Corporation who had an inordinate if misplaced amount of faith in their quantitative models; however, it should be noted that the military was largely responsible for allowing this to happen in that senior officers by and large failed to show sufficient interest in strategic analysis.<sup>58</sup>

## WAYS

The major failure of American military strategy is rooted in one very simple miscalculation, a mistake the North Vietnamese took full advantage of: using conventional methods to fight an unconventional war. As then Lieutenant Colonel Andrew Krepinevich succinctly put it

“To paraphrase General of the Army Omar Bradley, the United States can look back on Vietnam as the wrong war – at the wrong place, at the wrong time, with the wrong army. Simply stated, the United States Army was



neither trained nor organized to fight effectively in an insurgency conflict environment. The key to understanding this condition is a recognition that the Army's approach to war, referred to here as the Army Concept, is the product of an organizational character that has evolved over time and that, because of its high regard for tradition, has become deeply embedded in the services psyche or memory.

The Army Concept of War is, basically, the Army's perception of how wars *ought* to be waged and is reflected in the way the Army organizes and trains its troops for battle. The characteristics of the Army Concept are two: a focus on mid intensity, or conventional war and its reliance on high volumes of firepower to minimize casualties – in effect, the substitution of material costs at every available opportunity to avoid payment in blood.<sup>59</sup>

To this end, the Soviet and Chinese, by contrast, employed “wars of national liberation” or insurgencies to use another term, to counter American nuclear superiority. Moreover, the experience in Korea had not adequately prepared the United States to conduct a true counterinsurgency campaign. In Korea, the U.S. forces concentrated on the external threat (China), while leaving the South Koreans to deal with the threat of internal insurgency. In Vietnam by contrast, while American troops encountered North Vietnamese regulars on occasion, not until the end of the Tet Offensive in 1968 did the North Vietnamese Army (NVA) take the field in great numbers to fight in a more conventional manner. Until then, the VC had borne the brunt of the American war fighting machine, finally, being largely eliminated from the conflict as a result of the casualties suffered during Tet.

However, what is of interest to note is while the United States is generally perceived to have incurred the highest number of battle casualties (killed, wounded, and missing), the North Vietnamese/VC, South Vietnamese, and allied forces took the highest number of casualties on a percentage of forces deployed basis. However, an equally important qualitative conclusion may be drawn from the data as well. A determined enemy, willing to accept massive losses can still triumph in the face of a more highly resourced opponent, especially if that adversary loses the support of its domestic political base, which was the case in Vietnam.

## MEANS

From an economic perspective, the American economy performed reasonably well during the period of the heaviest American involvement in Vietnam, 1964–1970. Only one major recession took place and even then this only lasted less than a year (Table 6.6).<sup>60</sup>

*Post-War Fiscal and Debt Policy*

From a revenue perspective, as had become traditional since World War One, income taxes and other internal revenue were the largest sources of receipts for the Treasury with social security taxes likewise being a strong contributor. However, the major flaw in Johnson's economic strategy was his intense desire to fund both guns (Vietnam) and butter (his

Table 6.6

<i>Peak date</i>	<i>Trough date</i>	<i>Peak to trough months</i>
12/1/1969	11/1/1970	11
Average		11

Table 6.7

<i>Year</i>	<i>Individual income taxes (%)</i>	<i>Other internal revenue (%)</i>	<i>Customs (%)</i>	<i>Social insurance income taxes (%)</i>	<i>Excise taxes (%)</i>	<i>Estate taxes (%)</i>	<i>Federal reserve earnings (%)</i>	<i>Other (%)</i>	<i>Total receipts (%)</i>
1965	42%	35%	1%	19%	12%	2%	1%	-13%	100%
1966	42%	33%	1%	20%	10%	2%	1%	-10%	100%
1967	41%	35%	1%	22%	9%	2%	1%	-12%	100%
1968	45%	35%	1%	23%	9%	2%	1%	-16%	100%
1969	46%	33%	1%	21%	8%	2%	1%	-13%	100%
1970	47%	35%	1%	23%	8%	2%	2%	-19%	100%
Average	44%	34%	1%	21%	10%	2%	1%	-14%	100%

Table 6.8

<i>Year</i>	<i>Department of the Army (%)</i>	<i>Department of the Navy (%)</i>	<i>Department of the Air Force (%)</i>	<i>Defense wide (%)</i>	<i>Veterans compensation (%)</i>	<i>Interest on the public debt (%)</i>	<i>Other (%)</i>	<i>Total outlays (%)</i>
1965	10%	11%	15%	2%	3%	10%	48%	100%
1966	11%	12%	15%	2%	3%	9%	48%	100%
1967	13%	12%	14%	3%	3%	8%	46%	100%
1968	14%	12%	14%	2%	3%	8%	46%	100%
1969	14%	12%	14%	2%	3%	9%	46%	100%
1970	13%	11%	13%	3%	3%	10%	48%	100%
Average	12%	12%	14%	2%	3%	9%	47%	100%

**Table 6.9**

<i>Year</i>	<i>Total receipts (\$)</i>	<i>Total outlays (\$)</i>	<i>Surplus/(Deficit) (\$)</i>
1965	\$116,833,000	\$118,429,745	(\$1,596,745)
1966	\$130,856,000	\$134,651,927	(\$3,795,927)
1967	\$149,552,000	\$158,254,257	(\$8,702,257)
1968	\$153,671,000	\$178,832,655	(\$25,161,655)
1969	\$187,784,000	\$184,556,043	\$3,227,957
1970	\$192,807,000	\$196,587,786	(\$3,780,786)
Total	\$931,503,000	\$971,312,413	(\$39,809,413)
Average	\$155,250,500	\$161,885,402	(\$6,634,902)

**Table 6.10**

<i>Year</i>	<i>Interest on the public debt (\$)</i>	<i>Total debt (\$)</i>	<i>Interest as a % of total debt</i>
1965	\$11,346,455	\$687,500,000	1.7%
1966	\$12,013,865	\$755,800,000	1.6%
1967	\$13,391,068	\$810,000,000	1.7%
1968	\$14,573,008	\$868,400,000	1.7%
1969	\$16,588,237	\$948,100,000	1.7%
1970	\$19,303,670	\$1,012,700,000	1.9%

Great Society) at the same time. The tables below vividly demonstrate the incompatibility of this approach. While one would expect military spending to increase during a conflict the size of Southeast Asia, social spending (accounted for as “other”) like increased both in raw numbers and percentages. Not surprisingly, Johnson was forced to ask for the 10% income tax surcharge discussed above in an attempt to head off a budgetary disaster as federal government debt levels skyrocketed at the same time (Tables 6.7, 6.8, 6.9, and 6.10).<sup>61,62,63,64,65</sup>

### *Post-War Monetary Policy*

Meanwhile, the Federal Reserve’s Annual Report of 1970, released on May 21, 1971, stated

“Economic and financial conditions in the United States during 1970 were in a difficult transitional stage. Real output was stagnant and unemployment was rising, and at the same time prices continued upward under continued

cost pressures. Meanwhile, the balance of payments was affected by adverse shifts in capital flows, as a sharp drop in short-term interest rates in this country led to a reversal of the very large inflow of short-term capital that had contributed to surpluses in the U.S. official settlements balance in the previous two years. Substantial progress was made during 1970, however, in re-establishing the basis for sustainable economic expansion. Although wage increases—particularly under collective bargaining agreements—continued to be large, resumption of growth in productivity after the first quarter served to moderate the rate of increase in unit labor costs. The gains in efficiency that were effected in the business sector also worked toward an improvement in the international competitive position of the United States.”<sup>66</sup>

### *Post-War Mobilization Policy*

As for Koistinen’s four factors of economic mobilization, the most important during the Vietnam conflict were the political and military elements, inextricably linked together. The loss of political support for the war quickly translated into a loss of support for the military, a relationship that would take a decade to rebuild. Still, it would, as the result of determined leadership blooded in the jungles of Southeast Asia, prove itself on the desert sands of Southwest Asia in the early 1990s.

### NOTES

1. The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/showelection.php?year=1956>, accessed October 5th, 2014.
2. Robert D. Hormats, *The Price of Liberty: Paying for America’s Wars*, (New York: Henry Holt and Company, 2007), 204–205.
3. Ibid, 204–205.
4. U.S. Department of State, *The Eisenhower Doctrine, 1953-1960*, <https://history.state.gov/milestones/1953-1960/eisenhower-doctrine>, October 5th, 2014.
5. Special Report, An Affair to Remember, *The Economist* July 27th, 2006, <http://www.economist.com/node/7218678>, accessed October 5th, 2014; U.S. Department of State, *The Suez Crisis of 1956*, <https://history.state.gov/milestones/1953-1960/suez>, accessed October 5th, 2014.
6. Special Report: An Affair to Remember, *The Economist* July 27th, 2006, <http://www.economist.com/node/7218678>, accessed October 5th,

- 2014; U.S. Department of State, *The Suez Crisis of 1956*, <https://history.state.gov/milestones/1953-1960/suez>, accessed October 5th, 2014.
7. Carl von Clausewitz, *On War*, Book II, I, trans. Peter Paret and Michael Howard, (Princeton, NJ: Princeton University Press), 1331–1332; John M. Collins, *Grand Strategy: Practices and Principles*, (Annapolis, MD: Naval Institute Press), 1973, 250–251; Harry Summers, *On Strategy: A Critical Analysis of the Vietnam War*, (New York: Random House Publishing House), 1995, 4–5, 44–45, 68–69, 71–73, 94–95; Qiang Zhai, *China and the Vietnam Wars*, (Chapel Hill, NC: University of North Carolina Press), 2000, 217–222; U.S. Department of State, *Kennedy's Foreign Policy, A Short History of the Department of State*, <https://history.state.gov/departmenthistory/short-history/jfk-foreignpolicy>, October 5th, 2014.
  8. Carl von Clausewitz, *On War*, Book II, I, trans. Peter Paret and Michael Howard, (Princeton, NJ: Princeton University Press), 1331–1332; John M. Collins, *Grand Strategy: Practices and Principles*, (Annapolis, MD: Naval Institute Press), 250–251; Harry Summers, *On Strategy: A Critical Analysis of the Vietnam War*, (New York: Random House Publishing House, 1995), 4–5, 44–45, 68–69, 71–73, 94–95; Qiang Zhai, *China and the Vietnam Wars*, (Chapel Hill, NC: University of North Carolina Press), 217–222; U.S. Department of State, *Kennedy's Foreign Policy, A Short History of the Department of State*, <https://history.state.gov/departmenthistory/short-history/jfk-foreignpolicy>, October 5th, 2014.
  9. Zhai, *China and the Vietnam Wars*, 217–222.
  10. The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/ws/index.php?pid=28460&st=Lyndon+Johnson&st1=>, accessed October 5th, 2014.
  11. Andrew Krepinevich. *The Army and Vietnam*, (Baltimore, MD: Johns Hopkins University Press, 1988)
  12. *U.S. Business Cycle Expansions and Contractions* (Boston, MA: National Bureau of Economic Research), <http://www.nber.org/cycles.html>, accessed June 1st, 2014.
  13. The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/ws/index.php?pid=8045>, accessed October 5th, 2014.
  14. United States. Bureau of the Census. “Volume 2” in *Historical Statistics of the United States : Colonial Times to 1970* (1975). <https://fraser.stlouis-fed.org/title/?id=237#!5808>, accessed on January 6, 2015.
  15. United States. Bureau of the Census. “Volume 2” in *Historical Statistics of the United States : Colonial Times to 1970* (1975). <https://fraser.stlouis-fed.org/title/?id=237#!5808>, accessed on January 6, 2015.

16. United States. Bureau of the Census. "Volume 2" in *Historical Statistics of the United States : Colonial Times to 1970* (1975). <https://fraser.stlouisfed.org/title/?id=237#!5808>, accessed on January 6, 2015.
17. Board of Governors of the Federal Reserve System (United States), 1935- and Federal Reserve Board, 1914–1935. "1954," *Annual Report of the Board of Governors of the Federal Reserve System* (1954). <https://fraser.stlouisfed.org/title/?id=117#!2411>, accessed on January 24, 2015.
18. Board of Governors of the Federal Reserve System (United States), 1935- and Federal Reserve Board, 1914–1935. "1964," *Annual Report of the Board of Governors of the Federal Reserve System* (1964). <https://fraser.stlouisfed.org/title/?id=117#!2419>, accessed on January 24, 2015.
19. Centers for Medicare and Medicaid, *History*, <http://www.cms.gov/About-CMS/Agency-Information/History/index.html>, accessed January 30th, 2015.
20. United States. Bureau of the Census. "Volume 2" in *Historical Statistics of the United States : Colonial Times to 1970* (1975). <https://fraser.stlouisfed.org/title/?id=237#!5808>, accessed on January 6, 2015.
21. Dwight D. Eisenhower, *Eisenhower's Military Industrial Complex Speech*, Michigan State University, <http://coursesa.matrix.msu.edu/~hst306/documents/indust.html>, accessed June 1st, 2014.
22. Merriam-Webster Dictionary, *Definition of Systems Analysis*, <http://www.merriam-webster.com/dictionary/systems%20analysis>, accessed on October 23, 2014.
23. Defense Acquisition University, *The Programming, Planning, Budgeting and Execution System (PPBES)*, (Defense Acquisition University: Fort Belvoir, VA) <https://dap.dau.mil/acquipedia/Pages/ArticleDetails.aspx?aid=10fdf6c0-30ca-43ee-81a8-717156088826>, accessed October 5th, 2014.
24. Harry Summers, *On Strategy: A Critical Analysis of the Vietnam War*, (New York: Random House Publishing Group, 1995), 4–5, 44–45, 68–69, 71–73, 94–95.
25. Ernest and Trevor Dupuy, *Encyclopedia of Military History*, (New York: Harper Collins, 1986), 1296–1297; U.S. Department of State, *Foreign Relations of the United States, 1952–1954. The Geneva Conference: Volume XVI*, <https://history.state.gov/historicaldocuments/frus1952-54v16>, accessed October 5th, 2014.
26. Dupuy and Dupuy, *Encyclopedia of Military History*, 1296–1297; U.S. Department of State, *Foreign Relations of the United States, 1952–1954. The Geneva Conference: Volume XVI*, <https://history.state.gov/historicaldocuments/frus1952-54v16>, accessed October 5th, 2014.
27. U.S. Military Academy, Department of History, <http://www.westpoint.edu/history/SiteAssets/SitePages/Vietnam%20War/Vietnam01.gif>, accessed June 1st, 2014.

28. U.S. Statutes at Large, 88th Cong., 2nd sess., 384, [http://www.constitution.org/uslaw/sal/078\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/078_statutes_at_large.pdf), accessed June 24th, 2014.
29. Hugh Rockoff, *America's Economic Way of War: War and the U.S. Economy from the Spanish-American War to the Persian Gulf War*, (Cambridge, U.K.: Cambridge University Press), 2012, 277; U.S. Statutes at Large, 88th Cong., 2nd sess., 19–145, [http://www.constitution.org/uslaw/sal/078\\_statutes\\_at\\_large.pdf](http://www.constitution.org/uslaw/sal/078_statutes_at_large.pdf), accessed June 24th, 2014.
30. United States. Department of the Treasury. “Annual Report of the Secretary of the Treasury on the State of the Finances for the Fiscal Year Ended June 30, 1964,” *Annual Report of the Secretary of the Treasury on the State of the Finances* (Fiscal Year Ended June 30, 1964). <https://fraser.stlouisfed.org/title/?id=194#!5456>, accessed on January 24, 2015.
31. Summers, *On Strategy*, 118; William Westmoreland, *A Soldier Reports*, (New York: Random House Publishing Group, 1980), 32.
32. U.S. Military Academy, Department of History, <http://www.westpoint.edu/history/SiteAssets/SitePages/Vietnam%20War/vietnam%20war%20map%2026.jpg>, accessed June 1st, 2014.
33. Dupuy and Dupuy, *Encyclopedia of Military History*, 1213.
34. Dupuy and Dupuy, *Encyclopedia of Military History*, 1213.
35. Ibid, 1213.
36. United States. Department of the Treasury. “Annual Report of the Secretary of the Treasury on the State of the Finances for the Fiscal Year Ended June 30, 1965,” *Annual Report of the Secretary of the Treasury on the State of the Finances* (Fiscal Year Ended June 30, 1965). <https://fraser.stlouisfed.org/title/?id=194#!5458>, accessed on January 24, 2015.
37. Board of Governors of the Federal Reserve System (United States), 1935– and Federal Reserve Board, 1914–1935, 1965, *Annual Report of the Board of Governors of the Federal Reserve System (1965)*, <https://fraser.stlouisfed.org/title/?id=117#!2420>, accessed on October 23, 2014.
38. Dupuy and Dupuy, *Encyclopedia of Military History*, 1215.
39. Board of Governors of the Federal Reserve System (United States), 1935– and Federal Reserve Board, 1914–1935. “1966,” *Annual Report of the Board of Governors of the Federal Reserve System (1966)*. <https://fraser.stlouisfed.org/title/?id=117#!2421>, accessed on January 24, 2015.
40. The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/ws/index.php?pid=28338>, accessed October 5th, 2014.
41. Hormats, *The Price of Liberty*, 218–219; Rockoff, *America's Economic Way of War*, 277.
42. Dupuy and Dupuy, *Encyclopedia of Military History*, 1215.
43. The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/ws/index.php?pid=28338>, accessed October 5th, 2014. U.S. Statutes at Large, 89, 1, 863–879, <http://www>.



- [constitution.org/uslaw/sal/081\\_statutes\\_at\\_large.pdf](http://constitution.org/uslaw/sal/081_statutes_at_large.pdf), accessed June 24th, 2014.
44. The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/ws/index.php?pid=28371>, <http://www.presidency.ucsb.edu/ws/index.php?pid=28373>, accessed October 5th, 2014.
  45. Board of Governors of the Federal Reserve System (United States), 1935- and Federal Reserve Board, 1914–1935, 1967, *Annual Report of the Board of Governors of the Federal Reserve System (1967)*, <https://fraser.stlouisfed.org/title/?id=117#!2422>, accessed on October 23, 2014.
  46. U.S. Military Academy, Department of History, <http://www.westpoint.edu/history/SiteAssets/SitePages/Vietnam%20War/vietnam%20war%20map%2026.jpg>, accessed June 1st, 2014.
  47. The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/ws/index.php?pid=28772>, accessed October 5th, 2014.
  48. Dupuy and Dupuy, *Encyclopedia of Military History*, 1217.
  49. Dupuy and Dupuy, *Encyclopedia of Military History*, 1217–1221; The American Presidency Project, University of California, Santa Barbara, <http://www.presidency.ucsb.edu/showelection.php?year=1968>, accessed October 5th, 2014.
  50. United States. Department of the Treasury. “Annual Report of the Secretary of the Treasury on the State of the Finances for the Fiscal Year Ended June 30, 1968,” *Annual Report of the Secretary of the Treasury on the State of the Finances* (Fiscal Year Ended June 30, 1968). <https://fraser.stlouisfed.org/title/?id=194#!5602>, accessed on January 24, 2015.
  51. Board of Governors of the Federal Reserve System (United States), 1935- and Federal Reserve Board, 1914–1935. “1968,” *Annual Report of the Board of Governors of the Federal Reserve System (1968)*. <https://fraser.stlouisfed.org/title/?id=117#!2423>, accessed on January 24, 2015.
  52. United States. Department of the Treasury. “Annual Report of the Secretary of the Treasury on the State of the Finances for the Fiscal Year Ended June 30, 1969,” *Annual Report of the Secretary of the Treasury on the State of the Finances* (Fiscal Year Ended June 30, 1969). <https://fraser.stlouisfed.org/title/?id=194#!5605>, accessed on January 24, 2015.
  53. Board of Governors of the Federal Reserve System (United States), 1935- and Federal Reserve Board, 1914–1935, 1969, *Annual Report of the Board of Governors of the Federal Reserve System (1969)*, <https://fraser.stlouisfed.org/title/?id=117#!2424>, accessed on October 23, 2014.
  54. Dupuy and Dupuy, *Encyclopedia of Military History*, 1217–1221; The American Presidency Project, University of California, Santa Barbara,

- <http://www.presidency.ucsb.edu/showelection.php?year=1968>, accessed October 5th, 2014.
55. Dupuy and Dupuy, *Encyclopedia of Military History*, 1218.
  56. Board of Governors of the Federal Reserve System (United States), 1935- and Federal Reserve Board, 1914–1935, 1970, *Annual Report of the Board of Governors of the Federal Reserve System (1970)*, <https://fraser.stlouisfed.org/title/?id=117#!2425>, accessed on October 23, 2014.
  57. Summers. *On Strategy*, 4–5, 44–45, 68–69, 71–73, 94–95; Zhai, *China and the Vietnam Wars*, 217–222.
  58. Summers. *On Strategy*, 12–13.
  59. Ibid, 11–19, 43–44.
  60. Krepinevich. *The Army and Vietnam*, 4–5.
  61. *U.S. Business Cycle Expansions and Contractions*, (Boston, MA: National Bureau of Economic Research), <http://www.nber.org/cycles.html>, accessed June 1st, 2014.
  62. Hormats, *The Price of Liberty*, 208; Rockoff, *America's Economic Way of War*, 280–284.
  63. United States. Bureau of the Census. “Volume 2” in *Historical Statistics of the United States : Colonial Times to 1970* (1975). <https://fraser.stlouisfed.org/title/?id=237#!5808>, accessed on January 6, 2015.
  64. United States. Bureau of the Census. “Volume 2” in *Historical Statistics of the United States : Colonial Times to 1970* (1975). <https://fraser.stlouisfed.org/title/?id=237#!5808>, accessed on January 6, 2015.
  65. United States. Bureau of the Census. “Volume 2” in *Historical Statistics of the United States : Colonial Times to 1970* (1975). <https://fraser.stlouisfed.org/title/?id=237#!5808>, accessed on January 6, 2015.
  66. United States. Bureau of the Census. “Volume 2” in *Historical Statistics of the United States : Colonial Times to 1970* (1975). <https://fraser.stlouisfed.org/title/?id=237#!5808>, accessed on January 6, 2015.

## EPILOGUE: PREPARING FOR WAR ON THREE FRONTS

In the preface to this book, I argued that the United States over time has developed what I call a strategic resourcing culture. Having now reached the end of the manuscript, it should be readily apparent to the reader that, beginning with the American Revolution up until the present, the United States evolved from a politically disjointed group of self-serving colonies with little in the way of organized economic or financial systems to a nation of nearly 320 million citizens today served by one of the most unique (if still dysfunctional) political system supported by the world's largest economy and most sophisticated financial markets, all protected by the most powerful military force the world has ever seen, a formalized strategic resourcing culture if you will.

Yet, the United States, for all of its success, remains more vulnerable than ever due as much to those achievements as its failures. The reason lies in the American fascination with technology, whether it be on the battlefield or one's home computer. While stories abound about the riches that can be obtained through the pursuit of technological advancement, a dark side to this obsession also exists. Consider these recent examples:

In sum, while the United States clearly outclasses any potential adversary when it comes to conventional and unconventional warfare, we are clearly unprepared to combat enemies determined to engage us in the arcane third world of economics and finance. Yet it is in these areas that our adversaries can cause us the most damage in the sense that they are attacking America at

its most vulnerable—its economic and financial system. Yet, while substantial attention has been directed to the defensive nature of cyber warfare, for example, little public focus has been directed at using these techniques in an organized manner against these potential and actual foes. The purpose of this chapter is to suggest a *long-term oriented* strategic planning approach to resourcing and conducting both economic and financial warfare with the same intensity we apply to conventional and unconventional military warfare.

Lest the reader think economic and financial warfare do not belong in the same space as conventional and unconventional armed conflict, consider the following:

- “The federal budget deficit, which has fallen sharply during the past few years, is projected to hold steady relative to the size of the economy through 2018. Beyond that point, however, the gap between spending and revenues is projected to grow, further increasing federal debt relative to the size of the economy—which is already historically high... Although the deficits in CBO’s baseline projections remain roughly stable as a percentage of GDP through 2018, they rise after that. The deficit in 2025 is projected to be \$1.1 trillion, or 4.0 percent of GDP, and cumulative deficits over the 2016–2025 period are projected to total \$7.6 trillion. CBO expects that federal debt held by the public will amount to 74 percent of GDP at the end of this fiscal year—more than twice what it was at the end of 2007 and higher than in any year since 1950 (see figure below). By 2025, in CBO’s baseline projections, federal debt rises to nearly 79 percent of GDP.”<sup>1</sup>
- “As of April, 2011, the Federal Reserve (Fed) had a net worth of \$60 billion and assets approaching \$3 trillion. If the Fed’s assets decline in value by two percent, a fairly small event in volatile markets, the two percent decline applied to \$3 trillion in assets produces a \$60 billion loss—enough to wipe out the Fed’s capital. The Fed would then be insolvent... This has happened already, but the Fed does not report it because it is not required to revalue its assets to market value. This situation will come to a head when it comes time to unwind the Fed’s quantitative easing program by selling bonds. The Fed may ignore mark to market losses in the short run, but when it sells the bond, these losses will have to be shown on the books.”<sup>2</sup>
- Foreign holdings of U.S. securities totaled over \$6 trillion as of August 2014.<sup>3</sup>

- The May 2010 “flash crash” that caused the Dow Jones Industrial Average to fall some 1000 points within a few minutes before recovering.<sup>4</sup>
- The recent arrest by the Federal Bureau of Investigation (FBI) of a Russian national posing as bank official seeking information on electronic trading algorithms with an eye toward potentially disrupting financial markets.<sup>5</sup>
- The Pentagon’s annual report on Chinese military capabilities noted

“THE PEOPLE’S REPUBLIC OF CHINA (PRC) continues to pursue a long-term, comprehensive military modernization program designed to improve the capacity of its armed forces to fight and win short-duration, high-intensity regional military conflict. Preparing for potential conflict in the Taiwan Strait appears to remain the principal focus and primary driver of China’s military investment. However, as China’s interests have grown and as it has gained greater influence in the international system, its military modernization has also become increasingly focused on investments in military capabilities to conduct a wider range of missions beyond its immediate territorial concerns, including counter-piracy, peacekeeping, humanitarian assistance/disaster relief, and regional military operations. Some of these missions and capabilities can address international security challenges, while others could serve more narrowly defined PRC interests and objectives, including advancing territorial claims and building influence abroad.”<sup>6</sup>

This is not to say America’s adversaries do not have serious problems of their own. Russia’s economy, weighted down by sanctions, complicated by an ongoing Islamist insurgency in Chechnya and a dispute with the Ukraine, limits the Kremlin’s freedom of action. China remains highly dependent on the income derived from investments in American securities, without which the Communist Party would be unable to keep unprofitable state owned factories running and unemployed workers off the streets. Iran likewise struggles under severe economic sanctions while Islamic fundamentalism, beset by continuing Sunni–Shia religious divisions in general, seems to have entered into a new period of extended intramural carnage.

With these few examples in mind, it should be apparent to the reader that the United States possesses both strengths and weaknesses vis-a-vis these adversaries. Therefore, assuming economic and financial warfare will continue to play as important a role as military action in the future, a legitimate place to begin is to ask the question “how does one begin to

prepare a plan to conduct offensive and defensive economic and financial warfare?”

One potential intellectual inspiration for developing an economic and financial warfare strategy would be the Project Solarium exercises conducted by the Eisenhower administration in the early to mid-1950s. Prompted by deterioration in relations with the Soviet Union, an emerging threat in China, and the Korean conflict, new elected President Dwight D. Eisenhower realized the containment strategy of the Truman administration left much to be desired. To that end, he organized an exercise in which three different teams of security experts would argue for the implementation of different policy options:

“Team A would make the best possible argument for the existing policy of containment, seeking to prevent Soviet expansion in Europe while minimizing the risk of general war. Team A argued that the US should develop and implement a more dynamic campaign of political and psychological action against the Soviets. The group rejected any strategy that based its arguments on the acceptance of a risk of general war and recommended “waging peace” with US power by emphasizing the importance of negotiations. It also sought to prevent the use of an active military threat from driving national security strategy even though it gave the concept of force an important role to play—i.e., the role of augmenting diplomatic, economic, and political initiatives.

Team B would accept containment as a viable policy, but be less tentative about its implementation. It would assert that any Soviet or Soviet-sponsored aggression would lead to general war and threaten massive US and allied retaliation using any means necessary. Team B warned about the rigid nature of “drawing a line,” implying that it could actually increase the risk of war through inflexibility, but argued that a preponderant show of US force combined with a definitive geographical boundary line could lead to a change in Soviet policy and/or a mellowing of the overall regime. Team B further explained that 1) the allies would not readily accept where to draw the line; and 2) this strategy would be extremely expensive. However, it made the case that the external threat to the US ultimately outweighed the threat to domestic economic stability.

Team C would argue for “rollback,” meaning a policy to halt and then reverse Soviet efforts to hold territory by the presence of the Red Army. Team C argued that mere containment was flawed because it had no end-game and let the Soviets read American inaction as fear and acquiescence. It acknowledged that the benefits of “rollback” were speculative, but claimed that political and military actions short of general war (e.g., covert

operations and economic pressure) would be an effective way to take back regions from the Soviet area of control until, ultimately, the Soviet Union changed. Therefore, the US must first put indirect pressure on the Soviet Union by engaging its satellite states, then direct pressure on the Soviet Union itself.”<sup>7</sup>

Eisenhower eventually chose Team A’s recommendation on the grounds that it did not default to a military option immediately. However, regardless of the choice, the key conclusion was that any policy option was by definition needed to be *comprehensive in nature and built around a long-term strategy* (the Solarium experiment was a one off exercise lasting but a few weeks).

To that end, the logical place to start is with an organizational approach to long-range strategic planning. Many readers who have had the opportunity to participate in their corporate or military strategic planning processes may roll their eyes at this point. Consider the following quote from Anthony Cordesman, Arleigh A. Burke Chair in Strategy, The Center for Strategic and International Studies, on the process behind the Quadrennial Defense Review, the Pentagon’s premier strategic planning document:

“If God really hates you, you may end up working on a Quadrennial Defense Review: The most pointless and destructive planning effort imaginable. You will waste two years on a document decoupled from a real world force plan, from an honest set of decisions about manpower or procurement, with no clear budget or FYDP (Five Year Defense Plan), and with no metrics to measure or determine its success.”<sup>8</sup>

Still, the history of American economic warfare dates back to the War of 1812 with the failed Trade Embargo of 1807. More recently, the Treasury’s Office of Foreign Asset Control (OFAC) has traditionally taken the lead in administering and enforcing comprehensive or selective economic sanctions against individuals or organizations engaged in conduct considered hostile to the interests of the United States:

“OFAC is the successor to the Office of Foreign Funds Control (the “FFC”), which was established at the advent of World War II following the German invasion of Norway in 1940. The FFC program was administered by the Secretary of the Treasury throughout the war. The FFC’s initial purpose was to prevent Nazi use of the occupied countries’ holdings of foreign exchange

and securities and to prevent forced repatriation of funds belonging to nationals of those countries. These controls were later extended to protect assets of other invaded countries. After the United States formally entered World War II, the EFC played a leading role in economic warfare against the Axis powers by blocking enemy assets and prohibiting foreign trade and financial transactions. OFAC itself was formally created in December 1950, following the entry of China into the Korean War, when President Truman declared a national emergency and blocked all Chinese and North Korean assets subject to U.S. jurisdiction.”<sup>9</sup>

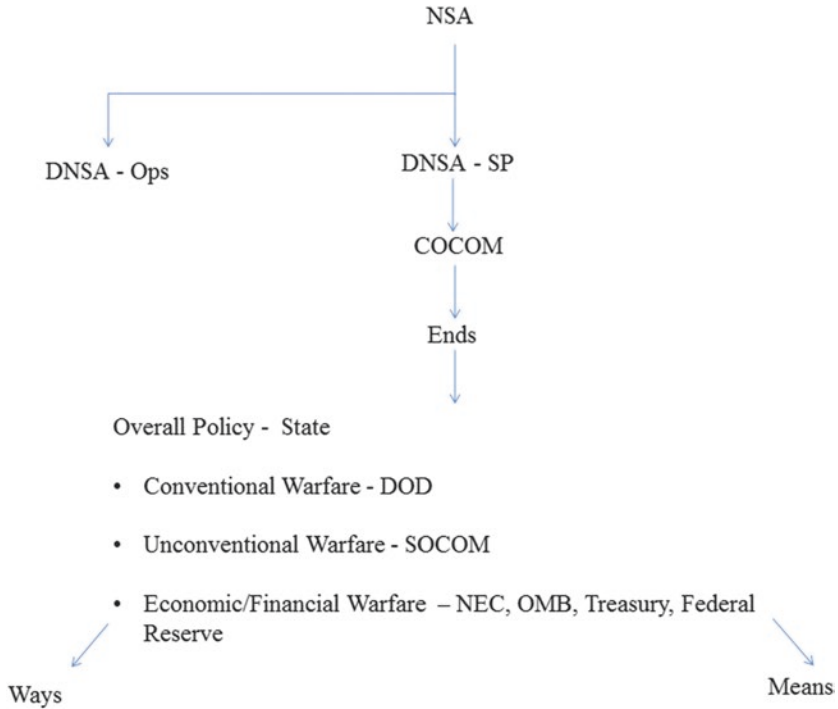
Economic and financial warfare therefore are not new weapons in the American arsenal. More recently, following the events of 9/11, the Treasury’s brief has broadened to focus on financial warfare as well. As Juan Zarate notes in his book *Treasury’s War*:

“But perhaps the most important insight powering Treasury’s campaign (against terrorism and organized crime) was its focus on the financial sector’s omnipresence in the international economic system. Financial activity – bank accounts, wire transfers, letters of credit – facilitates international commerce and relationships. The banks are the ligaments of the international system. In Treasury we realized that private sector actors – most importantly, the banks – could drive the isolation of rogue entities more effectively than governments – based principally on their own interests and desires to avoid unnecessary business and reputational risk.”<sup>10</sup>

If one accepts the notion that economic and financial warfare deserve the same level of attention that conventional and unconventional military warfare command, what might a potential organizational structure look like? For starters, the appropriate venue should be part of the NSC, run by the president’s National Security Adviser (NSA). However, those intimately familiar with the inner workings of the NSA (and I am not one of them) know that the NSC is truly a 24×7, 365 days a year operation with little or no time for long-range planning.

To that end, I would recommend the organizational structure outlined in Fig. 1. In other words, essentially divide the NSC in two while still maintaining the chain of command upward through the NSA to the president. On the one hand would be the current NSC structure under a deputy NSA for operations (DNSA—Ops), which would be left alone to function as it currently does. On the other would be a deputy NSA for strategic planning (DNSA—SP), organized around each combatant com-





**Fig. 1** Proposed NEW NSC Organizational Structure

mand (COCOM) much as the current Policy Coordinating Committees (PCC) are. Within the context of the ends, ways, and means model alluded to throughout the book, a senior State Department official would be responsible for implementing overall policy objectives (ends) relative to potential allies and adversaries in each of the geographic regions representing the relevant COCOM.

Meanwhile, the DOD (perhaps utilizing an organization along the lines of the Office of Net Assessment (ONA), the Pentagon's internal think tank or perhaps the ONA itself, given that it no longer reports directly to the Secretary of Defense) would take responsibility for analyzing and predicting future trends in conventional and unconventional warfare, the latter being directed by experienced personnel from the U.S. Special Operations Command (SOCOM). Finally, the third leg of the organization (means) would not only be responsible for assessing future

trends in economic and financial warfare but would also attempt to place a price tag on how to resource any policies that might result from this analysis, once again, with an eye toward allies and adversaries in each COCOM; this sub-organization would be manned and led by experienced personnel from the National Economic Council (NEC), the Office of Management and Budget (OMB), the Treasury, and the Federal Reserve to name but a few. In all cases, the intelligence and think tank communities would be utilized to provide some sense of current trends. The goal in all three cases would be to provide a long-term, non-traditional view of future potential threats without burying the organization within the confines of the traditional NSC structure.

Moreover, such an organization need not be hundreds strong. A few analysts, properly directed, serving rotating and overlapping tours of perhaps twenty-four months each in order to ensure some sense of continuity, would be preferable. Given the proposed nature of the organization, one might conceivably hope for even longer assignments, if personnel are not subject to the “burn out” pace one normally associates with NSC operations. *What is most important is that this be an ongoing exercise for one simple reason.* While the development of unforeseen threats such as the Islamic State in Iraq and Syria (ISIS) might take months or years to develop, detect, and react to, crashing the world’s financial markets can take but a few seconds. As one student of the Solarium exercise noted “the long-term benefits are clear: 1) it would provide strategic thinkers with an opportunity to move beyond just the day-to-day problems; 2) a solid methodology would help ensure the integrity of any final decision that is made; and 3) a methodology is reusable whereas a policy may not be.”<sup>11</sup> Simply put, producing an amorphous report ever year or so on current trends (the Quadrennial Defense Review (QDR) for example) to be thrown on a shelf to gather dust is a waste of time and resources. To that end, as anyone who has ever served in the national security establishment knows, it is equally critical that the organization have input, if not control, over its own funding.

Now that a potential organizational and personnel structure has been identified, *what should it actually do and more importantly accomplish?* The current *National Security Policy Process: The National Security Council and Interagency System* report provides one potential road map forward:

*Define the Problem* This includes assessing what U.S. national interests and strategic objectives are involved, reviewing intelligence reports, and seeking to determine some understanding of the dynamics of the situation (includ-

ing what is known, what is assumed, and what is unknown) and the interests and motivations of the actors involved. Is there a consensus on the issues at stake for the United States and the implications of acting or not acting? This part of the process also includes identifying additional information and intelligence needs and levying requirements to the intelligence and diplomatic communities. Issue Terms of Reference. Develop broad principles to guide the way the interagency group should think about a problem and craft a strategy for addressing it. Clarify Interagency Policy Committees (IPCs) processes and intra-group procedures for conducting meetings and accomplishing the task(s).

*Articulate Policy Objectives, Assess Options, and Develop an Overall Strategy for U.S. Policy.* Deliberations may include preventive strategies, or strategies for responses to possible developments as policies are implemented. Mission areas for the departments and agencies should be clarified and component strategies (including identifying capabilities and resource needs) developed that, eventually, are integrated into a single strategic approach. “Straw man” proposals are useful for clarifying departmental perspectives. Strategies usually are required for consulting with friends and allies, and developing multilateral consensus on strategic objectives and operational activities. Other considerations include monitoring the implementation of complex, multidimensional activities (which may include the activities of several departments), and anticipating transition dynamics as policies begin to produce expected and unanticipated effects.

*Identify Policy Instruments and Component Strategies (Including Ways and Means) to Achieve the Desired Policy Objectives.* Operational planning must be clarified and coordinated among the agencies involved and integrated missions must be identified and coordinated where appropriate. A process must be developed that steers around interagency and bureaucratic roadblocks. The standard operating procedures in departments and agencies may have difficulty working with coordinated interagency plans and gaps may develop in implementation. IPCs must seek ways to talk with operational-level staff to determine potential problems and solicit suggestions for effective implementation.

*Draft an Integrated Policy Options Document.* Ideally, this document should confirm the strategic approach, objectives, scope of effort and timelines, requirements and preparatory actions, chains of command, communication,

and responsibilities (independent and shared), and accountability for the departments. It also should identify assets, resources, and logistical requirements. Mechanisms should be established for integration at all levels as policies are implemented. Key judgments about the situation, the important policy issues, and recommendations should be identified for the Deputies and Principals Committees.<sup>12</sup>

Having said all this, it would be naïve for the author and reader not to believe that such an operational planning structure may already be in place and just not be visible to the general public. If not, it should be readily evident to the reader, based on history, that economic and financial competition will only intensify in the future. To that end, as military strength becomes less relevant over time as a measure of national power, American vulnerabilities on the economic and financial front will increase unless appropriate offensive and defensive measures are decisively taken in the very near future.

## NOTES

1. Congressional Budget Office, *The Budget and Economic Outlook: 2015 to 2025*, (Congressional Budget Office: Washington D.C.), January 26th, 2015, <http://www.cbo.gov/publication/49892>, accessed January 30th, 2015.
2. James Rickards. *Currency Wars: The Making of the Next Global Crisis*, (New York: Penguin Books, 2011), 174–175.
3. Ian Talley, U.S. Debt Held by Foreigners Hits Record \$6.07 Trillion in *The Wall Street Journal*, October, 17th, 2014, <http://blogs.wsj.com/economics/2014/10/17/u-s-debt-held-by-foreigners-hits-record-6-07-trillion/>, accessed February 1st, 2014.
4. U.S. Commodity Futures Trading Commission and the U.S. Securities and Exchange Commission, *Findings Regarding the Events of May 6th, 2010*, (U.S. Commodity Futures Trading Commission and the U.S. Securities and Exchange Commission: Washington D.C.), September 30th, 2010.
5. Nick Baumann, “The FBI Just Arrested an Alleged Russian Spy Who Wanted to Know How to Trigger an Economic Meltdown” in Mother Jones, January 26th, 2015, <http://m.motherjones.com/politics/2015/01/high-frequency-trading-russian-spies>, accessed January 30th, 2015.

6. Department of Defense. *Annual Report to the Congress: Military and Security Developments Involving the Peoples Republic of China*, (Department of Defense: Washington D.C., 2013), i.
7. Tyler Nottberg, *Once and Future Policy Planning: Solarium for Today*, (The Eisenhower Institute: Gettysburg, PA), [http://www.eisenhowerinstitute.org/about/living\\_history/solarium\\_for\\_today.dot](http://www.eisenhowerinstitute.org/about/living_history/solarium_for_today.dot), accessed February 3rd, 2015.
8. Anthony Cordesman, *Comments on the 2010 Quadrennial Defense Review (QDR)*, (Washington D.C.: dodbuzz.com), <http://www.dodbuzz.com/2010/02/04/qdr-garners-poor-reviews/>.
9. United States Department of the Treasury, *The Office of Foreign Assets Control*, (United States Department of the Treasury: Washington D.C.), <http://www.treasury.gov/resource-center/faqs/Sanctions/Pages/answer.aspx>, accessed January 31st, 2015.
10. Juan Zarate, *Treasury's War*, (New York: Public Affairs/Perseus Books, 2013), 10.
11. Nottberg, *Once and Future Policy Planning: Solarium for Today*, [http://www.eisenhowerinstitute.org/about/living\\_history/solarium\\_for\\_today.dot](http://www.eisenhowerinstitute.org/about/living_history/solarium_for_today.dot).
12. Whittaker, Alan G., Brown, Shannon A., Smith, Frederick C., & McKune, Elizabeth (2011). *The National Security Policy Process: The National Security Council and Interagency System*, (Research Report, August 15, 2011, Annual Update). Washington, D.C.: Industrial College of the Armed Forces, National Defense University, U.S. Department of Defense.

# BIBLIOGRAPHY

## PRIMARY SOURCES

- Acheson, Secretary of State Dean G., *Crisis in Asia – An Examination of U.S. Policy*, *Institute of oriental culture*. Tokyo: University of Tokyo. <http://www.ioc.u-tokyo.ac.jp/~worldjpn/documents/texts/docs/19500112.S1E.html>.
- Board of Governors of the Federal Reserve System (United States), and Federal Reserve Board. *Annual report of the board of governors of the federal reserve system*. <https://fraser.stlouisfed.org/title/?id=117>.
- Centers for Medicare and Medicaid. *History*. <http://www.cms.gov/About-CMS/Agency-Information/History/index.html>.
- Clausewitz, Carl von. 1976. *On War*. Ed. and trans. Michael Howard and Peter Paret, Princeton, NJ: Princeton University Press.
- Congressional Budget Office. 2015. *The budget and economic outlook: 2015 to 2025*. Washington, DC: Congressional Budget Office. 26 Jan 2015. <http://www.cbo.gov/publication/49892>.
- Corbett, Julian. 2004. *Principles of maritime strategy*. New York: Dover Publications.
- Defense Acquisition University. *The Programming, Planning, Budgeting and Execution System (PPBES)*. Fort Belvoir, VA: Defense Acquisition University. <https://dap.dau.mil/acquipedia/Pages/ArticleDetails.aspx?aid=10fdf6c0-30ca-43ee-81a8-717156088826>.
- Department of Defense. 2013. *Annual report to the congress: Military and security developments involving the peoples Republic of China*. Washington, DC: Department of Defense.
- Eisenhower, Dwight D. *“Farewell Address to the Nation” in the American Presidency Project*, Santa Barbara, CA: University of California. <http://www.presidency.ucsb.edu/ws/index.php?pid=12086>.

- Eisenhower, Dwight D. *Eisenhower's military industrial complex speech*, Michigan State University. <http://coursesa.matrix.msu.edu/~hst306/documents/indust.html>.
- Federal Reserve Bank of Richmond. [https://www.richmondfed.org/publications/research/special\\_reports/treasury\\_fed\\_accord/background](https://www.richmondfed.org/publications/research/special_reports/treasury_fed_accord/background). Accessed 25 April 2014.
- Jomini, Antoine. 1862. *The art of war*. Westport: Greenwood Press.
- Library of Congress, Statutes at Large, Volumes 1–125.
- Mahan, Alfred Thayer. 1988. *The influence of sea power upon history: 1660–1873*. New York: Dover Publications.
- Merriam-Webster Dictionary. <http://www.merriam-webster.com/dictionary/systems%20analysis>.
- National Bureau of Economic Research. *U.S. business cycle expansions and contractions*. Boston, MA: National Bureau of Economic Research. <http://www.nber.org/cycles.html>.
- Santayana, George. 2010. *The Life of Reason*. Vol. 1. Houston, TX: Halcyon Press Ltd.
- Smith, Adam. 2000. *The wealth of nations*. New York: Random House Publishing Group.
- Talley, Ian. 2014. U.S. debt held by foreigners hits record \$6.07 trillion in *The Wall Street Journal* 17 Oct 2014. <http://blogs.wsj.com/economics/2014/10/17/u-s-debt-held-by-foreigners-hits-record-6-07-trillion/>.
- Text of the Goldwater-Nichols Department of Defense Reorganization Act of 1986. 1 Oct 1986. <https://www.govtrack.us/congress/bills/99/hr3622/text>.
- The American Presidency Project. Santa Barbara: University of California. <http://www.presidency.ucsb.edu/>.
- The Truman Library. *Notes on the wake Island conference*. [http://www.trumanlibrary.org/whistlestop/study\\_collections/koreanwar/documents/index.php?documentid=ki-9-9&pagenumber=1](http://www.trumanlibrary.org/whistlestop/study_collections/koreanwar/documents/index.php?documentid=ki-9-9&pagenumber=1).
- The Urban Institute and the Brookings Institution. *Tax legislation 1950–1959*. <http://www.taxpolicycenter.org/legislation/1950.cfm#Excess1950>.
- Truman, Harry S. Dismissal of MacArthur. Independence, MO: Truman Library. [http://www.trumanlibrary.org/exhibit\\_documents/index.php?tldate=0000-00-00&groupid=3461&pagenumber=1&collectionid=firem](http://www.trumanlibrary.org/exhibit_documents/index.php?tldate=0000-00-00&groupid=3461&pagenumber=1&collectionid=firem).
- Tse Tung, Mao. 1967. *Selected military writings*. Peking: Foreign Languages Press.
- U.S. Department of State. *Biographies of the secretaries of state*. <https://history.state.gov/departmenthistory/people/monroe-james>.
- U.S. Department of State. Office of the Historian. <http://history.state.gov/>.
- U.S. Department of State. *The Monroe-Pinckney treaty*. <https://history.state.gov/milestones/1784-1800/pickney-treaty>.
- U.S. Department of the Navy. U.S. Naval Historical Center. <http://www.history.navy.mil/photos/sh-usn/usnsh-c/chesapke.htm>.

- U.S. Department of the Treasury. Annual report on the state of the finances. *Annual report of the secretary of the treasury on the state of the finances*. <https://fraser.stlouisfed.org/title/?id=194>.
- U.S. Air Force. National Museum of the United States Air Force, *USAF Established*, (Wright Patterson AFB: Dayton, OH), <http://www.nationalmuseum.af.mil/factsheets/factsheet.asp?id=1845>
- U.S. Army Center for Military History. 2004. *Toward a professional army*. Washington, DC: U.S. Army Center for Military History.
- U.S. Army Center for Military History. 2005. *American military history, volume II: The United States army in a global era, 1917-2008*. Washington, DC: Center for Military History.
- U.S. Army War College. 2008. *Guide to national security issues*. ed. J. Boone Bartholomees, Carlisle, PA: U.S Army Strategic Studies Institute.
- U.S. Commodity Futures Trading Commission and the U.S. Securities and Exchange Commission. *Findings regarding the events of May 6th, 2010*. Washington, DC: U.S. Commodity Futures Trading Commission and the U.S. Securities and Exchange Commission.
- U.S. Congress, House Ways and Means Committee. <http://waysandmeans.house.gov/about/history.htm>.
- U.S. Department of State. *Foreign relations of the United States, 1952–1954. The Geneva conference: Volume XVI*. <https://history.state.gov/historicaldocuments/frus1952-54v16>.
- U.S. Department of State. *Kennedy's foreign policy, A short history of the department of state*. <https://history.state.gov/departmenthistory/short-history/jfk-foreignpolicy>.
- U.S. Department of State. *The Chinese revolution of 1949*. <http://history.state.gov/milestones/1945-1952/chinese-rev>.
- U.S. Department of State. *The Eisenhower doctrine, 1953–1960*. <https://history.state.gov/milestones/1953-1960/eisenhower-doctrine>.
- U.S. Department of State. *The national security act of 1947*. <http://history.state.gov/milestones/1945-1952/national-security-act>.
- U.S. Department of State. *The Suez crisis of 1956*. <https://history.state.gov/milestones/1953-1960/suez>.
- U.S. Department of State. *The Truman doctrine, 1947*. <http://history.state.gov/milestones/1945-1952/truman-doctrine>.
- U.S. Department of State. *The Washington Naval conference, 1921–1922*. <http://history.state.gov/milestones/1945-1952/truman-doctrine>.
- U.S. House of Representatives. House Ways and Means Committee. <http://waysandmeans.house.gov/about/history.htm>. Accessed 18 June 2014.
- U.S. House of Representatives. *The McKinley tariff of 1890*. <http://history.house.gov/Historical-Highlights/1851-1900/The-McKinley-Tariff-of-1890/>.



- U.S. Military Academy, Department of History. *The West Point atlases*. <http://www.westpoint.edu/history/sitepages/our%20atlases.aspx>.
- United Nations High Commissioner for Refugees, Resolution 82 (1950) of 25 June 1950. <http://www.refworld.org/cgi-bin/texis/vtx/rwmain?docid=3b00f15960>
- United States Bureau of the Census. "Volume 2" in *Historical Statistics of the United States: Colonial Times to 1970* (1975). <https://fraser.stlouisfed.org/title/?id=237#!5808>
- United States Department of the Treasury. *The office of foreign assets control*. Washington DC: United States Department of the Treasury. <http://www.treasury.gov/resource-center/faqs/Sanctions/Pages/answer.aspx>.
- Wichita State University. *Papers related to the Seizure of American ships, 1793–1801*. <http://specialcollections.wichita.edu/collections/ms/82-04/82-4-A.HTML>.

## SECONDARY SOURCES

- Angell, Norman. 1913. *The Great Illusion: A Study of the Relation of Military Power to National Advantage*. New York: G. Putnam and Sons.
- Baugh, Daniel. 1987. British Strategy during the First World War in the Context of Four Centuries: Blue Water vs. Continental Commitment. In *Naval History: The Sixth Symposium of the U.S. Naval Academy*, ed. Daniel Masterson, Wilmington, DE: Rowman and Littlefield. Quoted in Brewer, *The Sinews of Power*, 174–175.
- Baumann, Nick. 2015. The FBI Just arrested an alleged Russian spy who wanted to know how to trigger an economic meltdown. *Mother Jones* 26 Jan 2015. <http://m.motherjones.com/politics/2015/01/high-frequency-trading-russian-spies>.
- Beard, Charles, and Beard Mary. 1921. *The History of the United States*. New York: MacMillan.
- Beaufre, Andre. 1965. *An Introduction to Strategy*. New York: Praeger.
- Brian McAllister Linn. 2002. The American Way of War Revisited. *Journal of Military History* 66(2): 501–530.
- Builder, Carl. 1989. *Masks of war: American Military Styles in Strategy and Analysis*. Washington, DC: RAND Corporation.
- Cashin, Paul, Nadeem Haque, Nils Olekalns. 1999. *Spend now and pay later: Tax smoothing and fiscal sustainability in South Asia*. Washington, DC: International Monetary Fund. 3 May 1999. <http://www.imf.org/external/pubs/ft/wp/1999/wp9963.pdf>.

- Chow, Edward C. and Anne Hudson. 2013. *The Russia-EU relationship: A partnership of necessity*. 20 Nov 2013 Washington, DC: Center for Strategic and International Studies.
- Collins, John M. 1973. *Grand Strategy: Principles and Practices*. Annapolis: Naval Institute Press.
- Collins, John M., Elizabeth Ann Severns, and Thomas P. Glaksas. 1982. *U.S. Defense Planning: A Critique*. Boulder, CO: Westview Press.
- Cordesman, Anthony. *Comments on the 2010 Quadrennial Defense Review (QDR)*. Washington DC: dodbuzz.com. <http://www.dodbuzz.com/2010/02/04/qdr-garners-poor-reviews/>.
- Crosby, Scott R. 2002. *Political Realism versus Political Idealism*. <http://faculty.valenciacollege.edu/scrosby/realismidealism.htm>. Accessed 18 June 2014.
- Crowl, Philip. 1986. *Alfred Thayer Mahan: The Naval Historian in Makers of Modern Strategy: From Machiavelli to the Nuclear Age*. Princeton: Princeton University Press.
- Delbruck, Hans. 1997. *History of the Art of War, Vol. I-IV*. Lincoln: University of Nebraska Press.
- Dewey, Davis Rich. 1903. *Financial History of the United States*. New York: Longmans, Green and Co.
- Douhet, Giulio. 1942. *Command of the Air*. New York: Coward-McCann.
- Dupuy, R. Ernest, and Trevor N. Dupuy. 1970. *Encyclopedia of Military History from 3500 B.C to the present*. New York: Harper and Row Publishers.
- Ferguson, Niall. *The Cash Nexus: Money and Power in the Modern World, 1700–2000*. New York: Basic Books.
- Fuller, J.F.C. 1955. *Military history of the western world: Volume II, 243*. New York: Da Capo Press.
- Gilbert, Charles. 1970. *American Financing of World War I*. Westport: Greenwood Publishing.
- Golay, Michael. 2010. *The Spanish-American War*. New York: Chelsea House Publishers.
- Goodwin, Crauford. 1991. National security in classical political economy. In *Economics and National Security: A Study of their Interaction*. Annual Supplement to Volume 23. Durham, NC: Duke University Press.
- Handel, Michael. 2006. *Masters of War: Classical Strategic Thought*. New York: Routledge.
- Hitch, Charles J., and Roland McKean. 1963. *The Economics of Defense in the Nuclear Age*. Cambridge: Harvard University Press.
- Hormats, Robert. 2008. *The Price of Liberty: Paying for America's Wars*. New York: Holt Henry & Co.
- Horton, Mark and Asmaa El-Ganainy. 2009. What is Fiscal Policy? *International Monetary Fund* 46, no. 2 (1 June 2009): 52. <http://www.imf.org/external/pubs/ft/fandd/2009/06/basics.htm>.

- Huntingdon, Samuel P. 1957. *The Soldier and the State: The Theory and Politics and Civil-Military Strategy Relations*. Cambridge: Harvard University Press.
- Jian, Chen. 1994. *China's Road to the Korean War: The Making of the Sino-American Confrontation*. New York: Columbia University Press.
- Jim Rickards: "Pentagon's financial war games playing out." FinancialSense.com. 20 September 2013. <http://www.financialsense.com/contributors/jim-rickards/world-playing-out-pentagon-financial-war-game>.
- Johnson, Jeannie. 2006. *Refining the strategic construct*, Alexandria, VA: Defense Threat Reduction Agency Advanced Systems Concepts Office. Contract No. DTRA01-03-D-0017.
- Johnston, Louis and Samuel H. Williamson. 2014. *The Annual Real and Nominal GDP for the United States, 1789-Present*. Boston, MA: National Bureau of Economic Research. <http://users.nber.org/~rosenbla/econ110/lecture/gdp-history.pdf>. Accessed 15 June 2014.
- Jones, Wilbur D. 1999. *Arming the Eagle: A History of U.S. Weapons Acquisition since 1775*. Fort Belvoir: Defense Systems Management Press.
- Jurgen, Brauer, and Hubert Van Tuyl. 2008. *Castles, Battles and Bombs: How Economics Explains Military History*, vol. 45. Chicago: University of Chicago Press.
- Kaldor, Mary. 1999. *Old and New Wars: Organized Violence in a Global Era*. Palo Alto: Stanford University Press.
- Kennan, George. July 1947. The Sources of Soviet Conduct, *Foreign Affairs Magazine* 25, no. 4: 566–582.
- Kennedy, Paul. 1976. *The Rise and Fall of British Naval Mastery*. Amherst, New York: Humanity Books.
- Kennedy, Paul. 1987. *The Rise and Fall of the Great Powers: Economic Change and Military Conflict from 1500–2000*. New York: Vintage Books.
- Kirshner, Jonathan. 2007. *Appeasing Bankers: Financial Caution on the Road to War*. Princeton: Princeton University Press.
- Koistinen, Paul A.C. 1996. *Beating Plowshares into Swords: The Political Economy of American Warfare, 1606–1865*. Lawrence: University Press of Kansas.
- Koistinen, Paul A.C. 1997. *Mobilizing for Modern Warfare: The Political Economy of American Warfare, 1865–1919*. Lawrence: University Press of Kansas.
- Koistinen, Paul A.C. 1998. *Planning War, Pursuing Peace: The Political Economy of American Warfare, 1920–1939*. Lawrence: University Press of Kansas.
- Koistinen, Paul A.C. 2004. *Arsenal of World War Two: The Political Economy of American Warfare, 1940–1945*. Lawrence: University Press of Kansas.
- Koistinen, Paul A.C. 2012. *State of War: The Political Economy of American Warfare, 1940–1945*. Lawrence: University Press of Kansas.
- Krepinevich, Andrew. 1988. *The Army and Vietnam*. Baltimore: Johns Hopkins University Press.

- Krooss, Herman, and Paul Studenski. 2003. *Financial History of the United States*. Washington, DC: Beard Books.
- Lambert, Nicholas. 2012. *Planning Armageddon: British Economic Warfare and the First World War*. Cambridge: Harvard University Press.
- Linn, Brian McAllister. 2000. *The Philippine War, 1899–1902*. Lawrence, KS: University Press of Kansas.
- Lynn, John. Rally Once Again. *The Military History Foundation*. <http://www.militaryhistoryfoundation.org/resources/lynn.html>.
- Maltby, William S. 1996. The Origins of a Global Strategy. In *The Making of Strategy: Rulers, States, and War*. Cambridge, UK: Cambridge University Press.
- Mankhen, Thomas. *United States Strategic Culture*. Alexandria, VA: Defense Threat Reduction Agency Advanced Systems Concepts Office, Contract No. DTRA01-03-D-0017.
- Matray, James I. Spring 2002. Dean Acheson's Press Club Speech Revisited. *The Journal of Conflict Studies* 22. no. 1.
- McIsaac, David. 1986. *Dohuet In Makers of Modern Strategy*, ed. Michael Howard and Peter Paret, Princeton, NJ: Princeton University Press.
- Mead, Walter Russell. 2002. *Special Providence: American Foreign Policy and How it Changed the World*. New York: Taylor and Francis.
- Meltzer, Allan H. 2003. *A History of the Federal Reserve: Volume 1, 1913–1951*. Chicago: University of Chicago Press.
- Miller, Edward S. 2007a. *Bankrupting the Enemy: The U.S. Financial Siege of Japan before Pearl Harbor*. Annapolis: Naval Institute Press.
- Miller Jr., Richard M. 2007b. *Funding Extended Conflicts: Korea, Vietnam and the War on Terror*. Westport: Praeger Security International.
- Morrison, Wayne and Marc LaBonte. 2013. *China's Holdings of U.S. Securities: Implications for the U.S. Economy*. Congressional Research Service, 19 Aug 2013.
- Nottberg, Tyler. *Once and Future Policy Planning: Solarium for Today*. Gettysburg, PA: The Eisenhower Institute. [http://www.eisenhowerinstitute.org/about/living\\_history/solarium\\_for\\_today.dot](http://www.eisenhowerinstitute.org/about/living_history/solarium_for_today.dot)
- Osgood, R.E. 1957. *Limited War*. Chicago: University of Chicago Press.
- Paret, Peter. 1986. *Makers of Modern Strategy: From Machiavelli to the Nuclear Age*. Princeton: Princeton University Press.
- Plehn, Carl. *Finances of the United States during the Spanish-American War*. Hathi Trust, University of California. <http://babel.hathitrust.org/cgi/pt?id=uc2.ark:/13960/t1jh3ds0m;view=1up;seq=3>.
- Remini, Robert V. 2008. *A Short History of the United States: From the Arrival of Native American Tribes to the Obama Presidency*. New York: Harper Perennial.
- Rickards, James. 2011. *Currency Wars: The Wars: The Making of the Next Great Global Crisis*. New York: Portfolio/Penguin.

- Rockoff, Hugh. 2012. *America's Economic Way of War: War and the U.S. economy from the Spanish-American War to the Persian Gulf War*. Cambridge: Cambridge University Press.
- Santayana, George. 1905. *The Life of Reason*, vol. 1. Houston: Halcyon Press Ltd.
- Schlesinger, James R. 1960. *The Political Economy of National Security: A study of the economic aspects of the contemporary power struggle*. London: Praeger.
- Shy, John. 1986. Jomini. In *Makers of Modern Strategy: From Machiavelli to the Nuclear Age*, ed. Howard Michael and Paret Peter. Princeton: Princeton University Press.
- Silber, William. 2008. *When Washington Shut Down Wall Street: The Great Financial Crisis of 1914 and the Origins of America's Financial Superiority*. Princeton: Princeton University Press.
- Snyder, Jack L. 1977. *The Soviet Strategic Culture: Implications for Limited Nuclear Operations*. Santa Monica: RAND Corporation.
- Special Report. 2006. An Affair to Remember. *The Economist* 27 July 2006. <http://www.economist.com/node/7218678>.
- Strachan, Hew. 2004. *Financing the First World War*. Oxford: Oxford University Press.
- Sumida, Jon. 1997. *Inventing Grand Strategy and Teaching Command: The Classic Works of Alfred Thayer Mahan Reconsidered*. Washington, DC: Woodrow Wilson Center Press.
- Summers, Harry G. 1995. *On Strategy: A Critical Analysis of the Vietnam War*. New York: Random House Publishing Group.
- The American Presidency Project. Santa Barbara: University of California, Accessed 6 June 2014.
- Trask, David F. 1996. *The War with Spain, 1898*. Lincoln: University of Nebraska Press.
- Upton, Emory. 1917. *The Military History of the United States since 1775*. Washington, DC: Government Printing Office.; U.S. Army Center of Military History. 2005. *American Military History, Volume One: The United States Army and the Forging of a Nation, 1775–1917*. Washington, DC: Center for Military History, United States Army.
- Van Creveld, Martin. 2004. *Supplying War*. Cambridge: Cambridge University Press.
- Weigley, Russell. 1977. *An American Way of War*. Bloomington: University of Indiana Press.
- Westmoreland, William. 1980. *A Soldier Reports*. New York: Random House Publishing Group.
- Whittaker, Alan G., Shannon A. Brown, Frederick C. Smith, and Elizabeth, McKune. 2011. *The National Security Policy Process: The National Security Council and Interagency System*. Research Report, 15 Aug 2011, Annual

- Update. Washington, DC: Industrial College of the Armed Forces, National Defense University, U.S. Department of Defense.
- Wright, Chester. 1943. The More Enduring Economic Consequences of America's Wars. *The Journal of Economic History* 3.S1.
- Wu, Yuan-Li. 1952. *Economic Warfare*. New York: Prentice Hall, Inc.
- Yale University. Lilian Goldman Law Library. The Avalon Project. <http://avalon.law.yale.edu/>.
- Yarger, Harry. 2008. *Towards a Theory of Strategy: Art Lykke and the U.S. Army War College Strategy Model in Volume I: Theory of War and Strategy, U.S. Army Guide to National Security Issues*. Carlisle Barracks: U.S. Army War College.
- Zarate, Juan. 2013. *The Treasury's War*. New York: Perseus Books.
- Zhai, Qiang. 2000. *China and the Vietnam Wars*. Chapel Hill: University of North Carolina Press.
- Zhang, Shu Guang. 1995. *Mao's Military Romanticism: China and the Korean War, 1950-1953*. Lawrence: University Press of Kansas.

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