BONES BEHIND THE BLOOD:
THE ECONOMIC FOUNDATIONS OF
GRANT'S FINAL CAMPAIGN

A Monograph
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First Term AY 91-92

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**Title:** Bones Behind the Blood: The Economic Foundations of Grant's Final Campaign

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**Abstract:** See Attached.
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Title of Monograph: Bones Behind the Blood: The Economic Foundations of Grant's Final Campaign

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Accepted this 8th day of December 1992
ABSTRACT

BONES BEHIND THE BLOOD: THE ECONOMIC FOUNDATIONS OF GRANT'S FINAL CAMPAIGN by COL James W. Townsend, USA, 38 pages.

This monograph explores the economic foundations behind General Ulysses S. Grant's 1864-1865 campaign, the final campaign of the American Civil War. This paper will compare and contrast the economic conditions in the Union and the Confederacy with respect to manpower, social systems, finance, infrastructure and industrial capacity. This will result in a calculus of relative strategic power to analyze the strength and protracted military capability of the two belligerents.

The campaign was long and bloody—truly a campaign that destroyed vast resources in people and national treasure. While the fighting was both protracted and vicious, the outcome was never in doubt. Based upon a strategic calculus of power, particularly industrial capacity and economic power, it was clear that the Union had a decisive advantage. While the South was primarily a traditional society with an agriculturally based economy, the North was in the stage of precondition for takeoff fully on the road to industrialization. Simply stated the South could ill afford to use up resources in manpower, military equipment and treasure at a rate near equal to the North. General Grant's final campaign was successful because it flowed from conditions set by a strong, vibrant economy and was guided by a strategy that thrived on this productive strength. Pressed into a corner due to Grant's final campaign, the South was sure to lose.
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1. Introduction

The United States of America, one Nation under God, indivisible, with liberty and justice for all.¹

These words of unity and freedom, taken from the Pledge of Allegiance to the Flag are commonly accepted today, but in 1864 it was not so. The United States was embroiled in a vicious and bloody civil war—a war that split the nation, tore it into two sections, and struck at the very heart of American social structure and values. In sharp contrast to the sense of the Pledge of Allegiance, the southern half of the nation stood against the Stars and Stripes. By Southern proclamation the nation was not one but divided in two. It was a land not only divided but in turmoil. It was a nation where a large segment of the population did not know freedom and justice, because they were chained by the evil of slavery. It was a land filled with hatred and fear.

President Abraham Lincoln was determined to subdue the South, restore the Union, and abolish slavery.² To accomplish these political objectives, the President needed to defeat the armies of the South, thereby removing the Confederacy's ability to resist federal control. By 1864 it was apparent that in order to defeat the South, it was necessary for General Ulysses S. Grant to destroy General Robert E. Lee's Army of Northern Virginia, the key to continued Southern resistance. Without an army the South had no hope of
continuing the conflict in the face of the overwhelming power in the North. This effort of destruction necessitated heavy fighting and resource-draining frontal assaults across the breadth of the military fronts.

In order to bring forth the full economic power of the North, the South would have to feel pressure everywhere—including the anguish of the destruction of its bases of operation and the strangulation of an economic blockade. This effort, forming the basis for the campaign of 1864-1865, chewed up people and national treasure. Though costly to the North, it had an even greater impact on the South, for it brought that segment of the society to the brink of exhaustion.

The main contention of this paper is that General Grant's final campaign was successful because it flowed from conditions fundamentally set by a strong, vibrant economy and was controlled by a strategy that fed on this productive strength. Because of its economic power, it was inevitable that the North would defeat the South and thus restore the Union.

The method of this paper, therefore, is to examine the economic base of the United States upon which General Grant's successful 1864-1865 campaign rested. This study is important because the Civil War serves as a useful model depicting the value of economic power in a modern, large scale, protracted war that consumes tremendous resources.
To develop this thought the paper will be organized into three primary sections: theory, history, and analysis. The theory section will set the stage for further economic analysis, and will include the relationship between a people, their government and their army as described by Carl von Clausewitz. In addition it will describe Clausewitz's theory of the center of gravity, and it will describe naval blockade concepts as detailed by Sir Julian S. Corbett. Finally, the theory section will outline models for economic growth as described by W.W. Rostow and a calculus of strategic power as described by John Spanier.

Using the theory as a framework, the historical section will describe the key social, political and economic factors that set the stage for the final year of the Civil War. This includes discussion of industrial growth, westward expansion, and the development of the national rift over slavery.

In the analysis section the theory and the history discussion will merge to determine the relative economic strengths of the North and the South, and to compare and contrast their economic capabilities, ability to project sustained power and the resulting impact on the war. The last section will draw conclusions from this study and implications for future conflicts.
II. Theory

Theory and history provide a workable structure for the analysis of the economic basis for General Grant's final campaign of the American Civil War. As Clausewitz said, "Theory exists so that no one need start afresh each time." In this sense the task of theory is to study the nature of ends and means. In examining these relationships this section will clarify concepts and ideas that are illustrated later in the historical section and facilitate follow-on analysis.

In assessing peace-war relationships and their connectivity, Clausewitz developed the theory of a paradoxical trinity to explain the interrelationship between the people, their government and the army. Of the three, the people are key, for they man the armed services and provide moral and financial support to the government. Without this support, the government would soon lose the capacity to wage war.

In the waging of war, a center of gravity is "the hub of all power and movement." From the center of gravity a nation draws the capacity for great strength; defeating the capability of the enemy's center of gravity should have the greatest, most jarring effect on national will. Important enemy centers of gravity may include his army, capital or allies.
The ability to destroy the enemy's center of gravity often depends on the relative calculus of power: a compilation of the strategic strengths, limitations and consequent power projection capabilities of the two adversaries. Dr. John Spanier, in *Games Nations Play*, includes geography, economic health, political stability, social structure, military capabilities and national leadership to determine the relative strategic strength of the belligerents.9

W.W. Rostow, in *Stages of Economic Growth* takes the economic factor in the calculus of power and develops it further to assess a nation's economic strength, stability and production potential.10 In his model he outlines five stages of economic growth:

1. Traditional
2. Preconditions for Take-Off
3. Take-Off
4. Drive to Maturity
5. High Mass-Consumption

Of the five stages, we will only be concerned with the first three since for the United States, stages four and five did not emerge until long after the ashes of the Civil War had become cool. In stage one, the traditional society, the production functions are limited and there are great resources invested in the agricultural section. Politically, most power in a traditional society like the South is held by large landowners.
In stage two of Rostow's model, called the preconditions for take-off, society begins to seek to improve the economic strength of the land and the populace. In this stage external influences begin to cause change; risk is taken in pursuit of profit, and some modern manufacturing enterprises begin to appear.

In stage three, the take-off, the political power group supports modernization and we begin to notice commercialization of agriculture and the reinvestment of profits into industry. For the society in the take-off stage of economic development, growth becomes the normal condition.

Assessing a country's economic status, and hence its economic potential and capability to produce and sustain a military baseline, can help one forecast effectively the direction victory will take when comparing the internal power and structure of two belligerents.

If a nation must go to war to preserve or protect a vital national interest, it may have great advantage if it is a maritime power. In Some Principles of Maritime Strategy, Professor Julian Corbett explained that in true maritime strategy ground and naval components complement one another so that each benefits and the outcome achieves national objectives. One way that a strong maritime power can facilitate wartime national objectives is to secure command of the sea by blockading enemy ports. In this sense blockade is an effective, though negative aim, for it seals enemy
commerce and prevents enemy naval vessels from attacking friendly shipping on the high seas. If a blockade effectively cuts sea communication routes, it forces the affected belligerent to place greater emphasis on internal bases of operation for economic and military support. Additionally a naval blockade makes it much more difficult for the blockaded belligerent to secure new alliances.

In summary, economic theory provides a model for the analysis of the economic dimension of total war. W.W. Rostow's model of economic growth, discussed above, will be particularly useful in focusing on the economic issues of the Civil war that led to Grant's final campaign.

III. The Historical Stage

The history of the American Civil War is one rooted in economic, social and political change resulting from industrialization and western expansion. This change occurred rapidly and was multidimensional in scope. The process had two striking aspects: it was so profound as to be revolutionary, and it affected the North much more dramatically than the South. As a result the North developed a mechanized production base and an educated manpower pool that was much more capable of waging modern mobile warfare on a sustained basis than was the agricultural production base and smaller manpower pool of the South. The North was able to win the war because it was able to build economic and military
power over time and gradually grind the less capably resourced South into submission. The economic power of the North allowed it to overwhelm the strategic and economic weakness of the South, and so placed the Confederacy on the road to doom and the Union on the road to certain victory.

The purpose of this section is to describe the economic, social and political events that led the North to certain victory. This study of history will illustrate these historical events and the development of the Union's successful strategy for the prosecution of the war. This section will answer the question: What was the linkage between the economic, social and political structure of the Union and the strategy executed by President Lincoln for the defeat of the South?

To answer the linkage question the section will be organized into key pieces for both North and South. First, the economic situation will be discussed, with a view toward developing a relative strategic power calculus. Second, the social situation will be described as it relates to economic growth and western expansion. Third, the political picture will be described as it emerged from the economic and social base. Fourth, the strategy of Lincoln will be described as it emerged from the economic, social, and political pictures of both North and South. The concept of this section is to set the historical basis for economic, social, political
phenomenon leading to a strategy that, in time, resulted in a successful campaign.

The start of Grant's successful final campaign really begins with the pre-Civil War era economic picture of America. A period snapshot would depict tremendous leaps in technological areas and great economic development, reflected in the products of factories including munitions, shipbuilding, canning and preservation of food, machine tools, micrometers, watches, clothing and agricultural machinery. All of these illustrate a process of industrialization that was focused primarily in the Northeast. By and large, that region of America continued expansive growth even during the expensive, resource draining war years.

The South, however, was already in a relatively retarded economic state. She had not yet entered a period of take-off toward industrialization due to the constraints imposed by a closed agricultural society that was heavily dependent on export of cotton and import of most manufactured goods. The destructive effects of the Civil War contributed to the further economic decline of the South. For instance, most of the property destroyed across the land was located in the South.13 In terms of relative growth the North and South reflected a state of opposites; the North experienced real growth and the South real decline.14

From 1860 to 1865 the South's productive output was keyed to land, slavery and cotton farming. The United States
contained, according to the 1860 census 31,443,321 people. Of these the South had 9,103,332 people including 4,000,000 slaves. These slaves produced cotton amounting to 57 percent of U.S. export total, valued at 191 million dollars. As a result of the focus on cotton and the heavy investment in slaves, valued at 2 billion dollars, the South felt tremendous economic pressure to maintain slavery as a necessary low cost resource.

In addition to cotton, economic growth in the U.S. during the two decades prior to the Civil War contained other factors including the emergence of factories and a heavy flow of immigrants from war-torn and economically ravaged Europe. However, in this picture of expansion and economic take-off "it was the growth of the cotton textile industry and the demand for cotton which was decisive." Cotton was a product with strategic impact because it was the major independent structure of internal and international trade. Cotton proved to be the base piece of demand for food from the West and manufactured goods from the Northeast.

The North in the 1850's grew in strength and capacity, fueled by cotton grown in the South. The South was totally dependent on trade with the North. "A marked characterization of the South was that income received from the export of cotton (and sugar, rice and tobacco) flowed directly out of the regional economy again in the purchase of goods and services." The South was an agrarian economy that depended
on cotton export and in turn imported consumer goods. "The Northeast provided not only the services to finance, transport, insure, and market the South's cotton, but also supplied the South with manufactured goods." The market conditions of the North and the drive to expansion of manufacturing capability were also facilitated by Congressional legislation in the 1860's in the form of the Homestead Act, the Land Grant College Act and the Pacific Railroad Act. The opening of homesteads and the development of land grant colleges encouraged immigration, increased expansion and thusly increased demand for manufactured goods. Construction of the transcontinental railroad was fundamental to the process of expansion because it opened the wealth of the West, provided employment for immigrants, increased demand on production and consequently fueled prosperity.

Immigration increased with perceived opportunity and prosperity in the United States between 1800 and 1850. The population expanded at a rate four times that of Europe because the phenomenal immigration was accompanied by natural population growth as a function of a higher birth rate and a lower death rate than Europe. Most of the immigrants settled in the North thus adding strength to the region. Of the 32 million people in the U.S. more than 22 million lived and worked in the North. The large population of workers in the Northeast manufacturing areas could produce and send goods to markets.
both internally and externally over a rapidly expanding railroad network. By 1860 the U.S. had over 30,000 miles of railroads which was more than the rest of the world combined. Significantly for the Union war strategy, most of the rail lines were located in the North.

The growth in rail lines coupled with canal construction helped ignite a transportation revolution that inspired the economy of the North to further production. The railroad industry encouraged technological experimentation and steel production. Further, "the transportation revolution made possible a division of labor and specialization of production for even larger and more distant markets." Railroads enabled production, and the natural resources fueled and stoked the furnaces that led to new levels of manufacturing. These resources included water power, river transportation systems and iron ore from Lake Superior. From this source of ore, foundries in Pittsburg produced cannon, mortars, railroad rails and iron plating for ironclad ships and locomotives. War demands for these products accelerated growth and "pushed the North into the industrial age."

Because of a strong production base coupled with skillfully coordinated financial management, the North was able effectively to finance the war. This smooth financing was organized by Secretary of the Treasury Salmon P. Chase and a Philadelphia banker, Jay Cooke. Cooke arranged the sale of two billion dollars in government land. Additionally Congress
issued 450 million dollars in "Greenbacks", paper money that was considered legal tender even though they were not secured by gold reserves. The Greenbacks were valued in a fluctuating manner, and they served as a "circulating medium of exchange." Finally to tie the whole system together, a national currency was established by the National Bank Act of 1863. Comparatively speaking the North was in good financial shape throughout the war.

While the North had a well structured and organized financial system designed to fund the war effort, and while it had natural resources, manpower and a production base to match, this situation did not exist in the South. The key to the entire Southern production base was cotton, and it was all geared to the export of raw cotton to the North in return for manufactured goods. Fully seventy-five percent of the manufactured goods used in the South were imported from the North or Europe. Additionally, most of the South's capital was cemented to the rigid system of cotton production linked to investment in slaves and land. Consequently, the region had little financial flexibility. In 1860 the value of land and slaves was thirty percent of the worth of the total wealth in the U.S., but the region had only twelve percent of the circulating currency.

As a result of low levels of circulating currency and a virtually nonexistent revenue system, the Confederacy faced significant trouble financing the war. In the South the
agricultural system forced little demand for services so there was marginal development of such structure. The government had no established tax system. As a result the South's prime mode for financing the Confederate war effort was to raise revenue by borrowing. Demand for money thus caused spiraling inflation that worked a hardship on non-slaveholding poor people. As early as 1862 the Southern economy was in trouble, and was in a reactive, unmanageable condition.

In spite of its troubled state the economy of the South actually suffered less of a decline than did the economy of the North as a result of the Panic of 1857. The Panic reflected a tightening money supply that resulted from Europeans pulling investment capital out of the United States in order to help finance Crimean War (1854-56) expenditures. This was combined with overproduction of wheat and speculation in Western lands. As Europeans withdrew money, prices of U.S. stocks and bonds fell and the Panic of 1857 was on. Ironically the telegraph, a technological innovation, compounded the impact of panic by spreading the word in a rapid and efficient manner. The spread of panic and the loss of real wages and purchasing power caused hardship on free workers in the Northeast, resulting in strikes in 1859 as Trade Union's attempted to recover lost wages.

Far beyond the status of wages, freedom of labor was the main social issue emerging in the U.S. in 1860. Should the nation be slave or should it be free, or should it continue
half slave and half free? Abraham Lincoln clearly felt that free labor "opened the way for all - gives hope to all."\footnote{38} The U.S. emerged from the midpoint of the century as a house divided because the slave-holding South blocked progress and curtailed "hope and energy." Slavery was a significant social disease that tore at the guts of America. The notion of slavery rose counter to human dignity and social mobility. Families were broken and young children were even sold in the interest of economy of scale and misguided rights of property.\footnote{39}

While the South viewed slaves as property, not people, "in the eyes of a growing number of Yankees, slavery degraded labor, inhibited economic development, discouraged education, and engendered a domineering master class determined to rule the country in the interests of a backward institution."\footnote{40} The stage for the Northern anti-slavery view that such bondage degraded labor and inhibited economic development was further inflamed by Harriet Beecher Stowe's novel, \textit{Uncle Tom's Cabin}, first published in 1852. The book sold over 300,000 copies in the first year and influenced the North and angered the South because of its clear anti-slavery position.\footnote{41} The anti-slavery issue moved quickly from the social mode to a raging political issue that centered not on the future of slavery in the South, but the future of the freeworker in the West.

As Americans looked to expand into the new Western
territories, the zeal to limit the spread of slavery became paramount. In 1854 Senator Stephen A. Douglas of Illinois introduced the Kansas-Nebraska Act that was designed to get a railroad from Chicago to the Pacific. It led to violence and bloodshed because this act introduced the idea of popular sovereignty to determine the slave or free status of the new territories. Four years later, in 1858 during the Lincoln-Douglas debates for the Illinois Senate seat election, Douglas stated that "slavery could not live a day unless it were supported by protective local legislation." This statement offended the South, caused a split in the Democratic Party and helped Lincoln win the 1860 Presidential election.

Through the social and political controversy of the 1850s, driven by the textile industry's machinery and specialization of workers, a system of manufacturing that was uniquely American began to emerge. This system of industrial capitalism began to form new relationships between free laborers and capitalists who owned the means of production. This process of factory production required skilled workers that consequently led to improvement in the education system. Meanwhile, in the South, a region driven by agricultural requirements, not industrialization, the education system and literacy fell behind.

A literate population, transportation facilities and new Western markets and resources contributed to the industrialization of the Northeast. Additionally the 1848
discovery of California gold contributed another log to fuel the fire of expansion, rupturing the dominant sphere of Southern cotton export and textile production. The North had grown beyond absolute dependence on the South and had entered an era of industrialization.

A key part of industrialization was the emergence of Pittsburg as a steel production center. The Pennsylvania city soon became the number one producer of bituminous coal and smelted iron. During the war years such metal would prove invaluable for production of weapons and armor plating for ironclad ships. When coupled with machine produced weaponry that allowed relative interchange of parts, steel production gave strength to the war potential of the North.

The South could not improve its war potential on a commercial level without significant change in the social and economic structure below the Mason-Dixon line. To even approach parity with the North such venture would require trade directly with Europe, unimpeded by middlemen, river and labor improvements and expansion of railroad construction that included a southern route for a railroad to the Pacific. In a display of raw economic power the Northern system of mercantile firms, factories, and shipping lines continued to dominate the southern trade. Where the South invested in land and slaves, the North invested in production.

Farming in the North also contributed mightily to the war potential. In spite of high rates of immigration and a high
birth rate, the North suffered spot manpower shortages that contributed to the mechanization of farming.\(^5\) As a result when the masses of men marched to the sound of the guns, production stayed high so the farm exports of wheat and other grains did much to help win the war for the North.\(^5\)

Additionally the rail network in the North efficiently moved grain exports to ports. As a result northern grain was an effective diplomatic counter to the South's cotton in emerging Civil War era trade relations with Great Britain.\(^5\)

Regardless of the foreign relations picture, the internal economic calculus of power in 1860 appeared to present the South in a position of disadvantage. The following table, set in 1860, lays out some comparisons between the two.\(^5\)

<table>
<thead>
<tr>
<th></th>
<th>North</th>
<th>South</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing Establishments</td>
<td>110,000</td>
<td>18,000</td>
</tr>
<tr>
<td>Industrial Workers</td>
<td>1,300,000</td>
<td>110,000</td>
</tr>
<tr>
<td>Railroad miles</td>
<td>21,973</td>
<td>9,283</td>
</tr>
</tbody>
</table>

In addition the North enjoyed advantages in locomotive production, draft farm animals, crop value, and merchant shipping. In the North all indicators pointed to expanding economic power and industrialization, whereas in the South the society was static.

Though the South had static, non-progressive economic and social systems, the region was not without resources and advantages that could become economic factors in a prolonged war with the North. Politically and socially, those in power
were unified in preservation of the status quo. The 3500 miles of regional coastline included 189 harbors and navigable river mouths. Coupled with the border with Mexico, the South was provided with numerous opportunities to infiltrate any economic blockade. Additionally the South covered an immense geographic area that was larger than the total area of Great Britain, Germany, France and Spain combined. Though production capacity lagged behind the North, when combined with imports from Europe and captured weapons, the South was able to produce sufficient quantities of war goods for the opening phases of the Civil War.

Beyond mere trade with and arms imports from Europe, the South sought diplomatic recognition from the principal powers of the continent. Great Britain was the main cog in the machinery of the recognition process. To the end of gaining diplomatic recognition from the British, President Jefferson Davis of the Confederacy sent three emissaries to London. These diplomatic efforts hinged on two strengths of the South—the economic power of cotton and military victories over the North. In addition to recognition the Confederacy sought military support and assistance in breaking the strangling effects of the Northern naval blockade of Southern ports.

The naval blockade of Southern ports was one of the first actions ordered by President Abraham Lincoln following the secession of Southern states and the seizure of Fort Sumpter.
by Confederate forces. On 4 July 1861 President Lincoln declared a blockade of Southern ports, but it was an order that was problematic because the Union navy lacked the numerical strength or force design required for execution of the order. Second, the order seemingly inferre recognition of the belligerent status of the South as a separate nation.  

Manpower to prosecute the war and fill the expanding armies and navies was a problem throughout the Civil War. Most of the soldiers in the opening months were ninety-day volunteers, and this seemed sufficient during the days of fun and frolic before the real bloodletting began.  

Soon it became clear that ninety-day enlistments would not provide trained manpower for sustained conflict, and in May 1861 President Lincoln called for three-year volunteers. For the Union this was not an efficient way to draw people but it did effectively provide the manpower required by the strategy of strangulation, a concept designed to seal off the Confederacy by naval blockade.  

The naval blockade began to be effective and by early 1862 six of the ten ports critical to resupply of the South had been seized by the Union Navy. After that the South had limited seaport capability in terms of facilities linked to the interior by river or railroad. These few remaining ports included Mobile, Savannah and Charleston. Because of this strangulation the North was able to exert significant economic pressure on the South through the blockade system.
In contrast to the North's ability to execute pressure through a naval blockade, the South lacked the tools and resources necessary for classification as a maritime power. "The South lacked a merchant marine and seafaring population, and it had very little in the way of shipyards and the industrial plant that could build machinery and armaments for warships."\(^1\) Even when the South developed ironclad ships like the Merrimac, it lacked the industrial facilities for first class maintenance and damage repair.\(^2\)

Though the South lacked industrial facilities, it did possess clarity of war aims. Virtually every Southerner could understand the unifying political and social objectives of the South.\(^3\) Southerners were absolutely determined to maintain the status quo of slavery and the existing social structure tied to employment of land. Additionally they visualized themselves as defending against invasion. "By contrast, the Federal government seemed to be fighting for an abstraction."\(^4\) Yet, as strange and abstract as it seemed the South failed to calculate the full value of the idea of union to the people in the North. President Lincoln was able to call on millions of men who were willing to make war to save the national structure.\(^5\)

President Abraham Lincoln was indeed the rallying point that led so many people to war, even if for seemingly abstract reasons. Earlier in his political career (September 1859) Lincoln argued strongly against the notion that slaves were
better off than hired labor. Lincoln visualized a free laborer's opportunity to work, save, and eventually invest in land or business on his own. Thus the laborer, as he prospered through saving, became a capitalist; hiring other workers and spreading the opportunity for self-improvement. As Lincoln said, "There is no such thing as a man who is a hired laborer, of a necessity, always remaining in his early condition." Improvement of the individual man in turn leads to improvement of the nation through a growing economy.

In addition to his views on the rights of man, Lincoln was driven by his vision of the value of the Union to the peoples of the nation as a whole. In his Annual Message to Congress, 3 December 1861, Lincoln stated, "One strong nation promotes more extensive, valuable and reliable commerce, then can the same nation broken into hostile fragments." Three years later on 6 December 1864 he stated, "Thus it is hoped with the return of domestic peace the country will be able to resume with energy and advantage its former high career of commerce and civilization." Lincoln had the intellectual and spirited qualities required to mold diverse groups of people into sharing his view of preservation of the Union. Lincoln had a vision of America. Moreover, he had the strength of character to realize that vision regardless of the personal and political consequences.

In spite of Lincoln's strength of character and his strong desire to preserve the Union, the states of the South
fulfilled their pledge of secession, a political act that led to the continuation of politics by other means - in this case war. To prosecute the war using all available components of military power, the North stepped beyond the blockade established in 1861. The strategy was expanded to include seizure and control of the Mississippi River and defeat of the armies of General Joseph Johnston and General Robert E. Lee.  

Following the years of stalemate, General U.S. Grant emerged from the 1863 victory at Vicksburg as the Commander of Union Armies and in charge of the 1864-65 campaign, designed to defeat Johnston and Lee. The campaign he developed was structured to secure President Lincoln's strategic objectives of defeat of Confederate armies, reunification of the United States and the elimination of the Confederacy. The plan was organized to put pressure on the Confederacy on a broad front that was intended to strain the economic structure of the South to the breaking point while utilizing the Northern industrial and manpower advantages. The idea was to grind down the Confederacy until the South lost all capacity to resist. Because of this, 1865 saw Admiral David Farragut attacking with naval forces to seize Mobile; General William T. Sherman attacking south out of Tennessee to seize Atlanta and Savannah; General Phillip Sheridan attacking to run the Confederates out of their base of supply for the Army of Northern Virginia, the Shenandoah Valley; and General Meade, under the direct supervision of General Grant, attacking
directly toward Richmond to destroy General Lee's Army and capture the city.\textsuperscript{72}

As the Union's 142,000-man Army of the Potomac pressured Lee's fortified positions guarding Petersburg and the approach to Richmond, Grant was determined to apply the industrial and manpower advantage of his army. "The fearful losses of the first months of 1864 had taught the Federals the folly of trying to drive Lee's men out of prepared positions. Grant's tactics ever since had been to extend his lines to the west, using his superior manpower to compel Lee to stretch his own army past the breaking point."\textsuperscript{73} By 2 April 1865 the Confederate forces had stretched so thin that Grant's blow at the center of the Petersburg lines achieved the desired penetration and led to the achievement of Lincoln's strategic objective - the destruction of Lee's army, the South's last source of power.\textsuperscript{74}

The surrender of Lee's Army at Appomatox on April 9, 1865 ended years of immense political pressure from radical Republicans and firebrand newspaper editors like Horace Greeley. The cry of "on to Richmond" had been met and victory was at hand.\textsuperscript{75} The North, through Lincoln and Grant, had demonstrated the linkage between economic power political and strategic objectives, and an operational level campaign.
IV. Analysis: Peeling the Historical Skin

Earlier sections of this paper described theoretical concepts relative to the strategic level of war and the era of history with impact on the Union's political process. The purpose of this section, analysis, is to provide additional insight into the nature of the U.S. economy upon which General Grant's final campaign rested. This will be done by expanding discussion of Rostow's model of economic growth and Spanier's model of strategic power calculus. Within these frameworks the conditions and actions of the North and of the South will be compared and contrasted. Key to the focus of effort will be whether or not an event actually contributed to the strategy of an operational level campaign. This will, consequently, include discussion of the vital interests and political systems in relation to the two belligerents.

As we have seen from Clausewitz, war is a continuation of politics by other means. In this sense it is also the continuation of the projection of economic power, molded into military might, designed to compel obedience to a nation's will. It can be said that the main ingredient of victory in any protracted campaign is economic power.

In examining economic power of the North and the South during the later stages of the Civil War, it becomes clear that there existed a comparative capability differential. In virtually any aspect of economic power during the 1864-65 time period, the North enjoyed a significant advantage. The focus
of the Northern advantages lay in comparative economic vitality displayed in growing industrial power. The United States had entered the economic condition described by W. W. Rostow as the take-off in the two decades prior to 1860. For the most part the growth of production that contributed to the take-off occurred in the North. Conversely the South remained fundamentally a traditional society with an agriculturally based economy, centered on the growth of cotton. Political control was held in the hands of the landowners, and there was no impetus to change social, economic or political systems.

In the North, production growth was not limited to the industrial sector, but farming experienced gains as well. The North had the heavy industries it needed to build the tools, armaments and munitions of farming as well as war. In spite of the loss of manpower to service in the Union Army and Navy, the farming sector in the North was successful because of the efficiency of new labor saving machinery that included corn planters, cultivators, mowers and reapers. "With all of this, the Northern farm belt not only met wartime needs for food and fibers, but it also helped to feed Great Britain." During the Civil War forty percent of Great Britain's wheat was imported from the Union. By 1864 the northern economy had achieved "new lengths of production" including farming, machinery, coal, and iron systems. As a result in the final year of the war, the large Union army was well equipped with rifles and artillery.
In addition to industrial production and farming, rail transportation contributed to a solid northern economy that was more than able to provide the sinews of war. As an adjunct to the rapid movement of goods to market and raw material to factories and food to the cities, the rail network facilitated the rapid operational level movement of large armies in response to changes in strategic direction.79

When coupled with a fairly complete railroad net and marked industrial production and growth, the northern economy emerged "more adaptable to the demands of war."80 Among many economic advantages the North enjoyed over the South was a pre-Civil War system of providing government revenue that include an established treasury and a tariff mechanism. Additionally Secretary of the Treasury Salomon P. Chase established a sale of government land to citizens as well as banks. These government lands were extremely popular and were highly accessible because they sold for as low as fifty dollars. Additionally in August 1861 Congress passed legislation to start a Federal Income Tax. Next the Union issued fifty dollars in treasury notes that were considered legal tender throughout the Union.81 During the war the North continued to prosper and grow so the armed forces were well supported by financial structure.

Prosperity in the north at the height of the Civil War went beyond industrialized segments. Farming in the North also improved and as we have noted because of labor saving
devices the average yield actually increased. However, in the South, mechanization of farming was not deemed necessary due to the heavy monetary investment in slave labor. There was simply no incentive to streamline or modernize ancient agrarian processes. The South produced seventy-five percent of the world's supply of cotton and the existing status quo seemed fine to those in control of the social and economic systems. Scientific experimentation and mechanization would have meant tinkering with the entire societal structure and values. By 1860 with the North in a take-off stage of economic growth, the differences in economic capabilities between the commercial North and the agricultural South were clear. In the North the agricultural segment represented forty percent of production, whereas in the South agriculture represented eighty percent of production.

Moreover, literacy in the North was running ninety-four percent but only fifty percent in the South, and the North had a six to one advantage in scientists and inventors. Finally in 1860 seven out of eight immigrants settled in the North, perhaps the most compelling indicator of opportunity and potential.

Late in the war, as the naval blockade began to have effect and as Grant's armies bore down on key geographic strategic points, the South, under pressure across a broad front, attempted to apply industrial mechanization practices already established in the North. They needed shipyards,
powder mills, armories and textile factories, and they needed
to tap iron and coal from Alabama. The great Tredegar Iron
Works at Richmond became one of the busiest factories in
America. These efforts, though locally effective, were not
accomplished on the massive scale required to make a
difference in the economic portion of the strategic calculus
of power between North and South.

The South also had macro-level problems in solidifying
economic production because of major shortfalls in the entire
societal structure. In addition to the external pressure
generated by the Union blockade that prevented the import of
armaments and manufactured goods, the South suffered shortages
in raw materials, capital, machinery and skilled labor - all
essential to the production of the goods of war. Even if the
basic elements would have been present, the Civil War era
education system in the South was not progressively geared to
produce literate masses of workers capable of training and
absorption into the factory system.

"By the spring of 1865, when the military effort, of the
Southland was at last brought to a halt, the Confederate
economy had suffered an all but total collapse. The nation
was able to keep an army in the field at all only because of
the matchless endurance and determination of its surviving
soldiers. Its ability to produce, transport, and pay for the
necessities of national life was almost entirely exhausted;
the nation remained on its feet only by a supreme and
despairing effort of will, and it moved as in a trance. Opposing it was a nation which the war had strengthened instead of weakened - a nation which had much the greater strength to begin with and which had now become one of the strongest powers on the globe."" 

Throughout the war the South sought to gain economic, diplomatic and military support by forming a coalition with Great Britain or France. If the South could have so done, she might have negated many of the economic power advantages of the North. This, however, the South was never able to achieve, for she was never able to convince the European powers that she would obtain victory. The South came close to diplomatic recognition in 1863 but it was never consummated because of the Union victories at Vicksburg and Gettysburg in July 1863. The Europeans had too much potential trade at stake. They did not want to join the war sided with the loser, and even cotton, as valuable as it was, failed to unhinge the logjam of diplomatic recognition. 

In support of Lincoln's personal views against slavery, he issued the final Emancipation Proclamation 1 January 1863 in a political move designed to rally support of radical Republicans behind the Union war effort. Even as the North began to turn the tide toward victory in a series of bloody battles and campaigns that culminated in victory at Vicksburg and Gettysburg, war weariness began to tell in the North. Lincoln continued to receive great criticism in and out of
newspapers because of the high casualties and seeming lack of strategic progress toward victory. Horace Greeley even pressured for peace in an editorial in his newspaper, the "New York Tribune". Even as General Sherman moved from Atlanta to Savannah, Georgia, people in the North emoted fear that he would be surrounded and cut off behind enemy lines. Through it all, victories were needed to prop up the people's morale and attitude toward final victory in a protracted campaign.

In examining the calculus of power, though victory was not certain, the one thing never in doubt was the mental toughness, moral steadfastness and raw determination of President Abraham Lincoln. Though, at times, the will of the people was uncertain, the will of the Union leader was not. He was in clear opposition to slavery, and he let his views be known to Congress and to the media. In espousing his views and leading the nation through four terrible years of war, Lincoln as the first modern war leader, demonstrated strong leadership traits that included an ability to organize, manage and motivate people, a brilliant mind that facilitated a grasp for detail as well as a vision of future strategic requirements. Binding all this together, Lincoln was extremely confident in his own abilities and he possessed a sense of humor and a relaxed demeanor that allowed him to work with a wide array of people and special interest groups. Furthermore, Lincoln was driven by a strong nationalistic fervor that caused him to relentlessly pursue his strategic
objective of reunifying the nation. "With no knowledge of the
theory of war, no experience in war, and no technical
training, Lincoln by the power of his mind, became a fine
strategist. He was a better national strategist then were
most of the trained soldiers. He saw the big picture of the
war from the start. The policy of the government was to
restore the Union by force; the strategy performed had to be
offensive. Lincoln knew that numbers, material resources, and
sea power were on his side."92

Actually the power of the North was not only stronger at
the beginning of the war but increased in economic strength
during the course of the fighting. In December 1864,
President Lincoln told Congress that the strength of the North
grew during the Civil War. As examples he was able to cite
western expansion, the development of the Pacific railroad,
discovery of gold and increases in manpower.93 Meanwhile, the
South though not beaten militarily was doomed to defeat, and
was suffering economic exhaustion.

In addition to economic superiority, the North had an
advantage in strategic leadership as well. Strategy, by and
large, was determined by the respective presidents. "In
supreme leadership the North was clearly superior. Lincoln
was an abler and a stronger man than Davis."94 Comparatively
speaking Lincoln had an advantage in mental capacity and in
strength of character.
The strength of character and intellect of Lincoln helped formulate a winning strategy for the Union that took advantage of the geography and economic and political strength of the North. This strategy was a "cordon offense." It was "the strategy that Lincoln had pressed upon his generals almost from the beginning of the war - to make the enemy agencies their objective and to move all Federal forces against the line simultaneously." To execute the strategy the Union needed a unified command system and a commander with the intellect and leadership to execute the strategy.

President Lincoln found the commander willing and able to execute the Union's strategy, and thereby employ the North's power to the maximum extent. "Not until he found Grant did Lincoln find a general who was original enough to employ his strategy. Grant's master design for 1864 called for an advance of Federal armies all along the line. It was the operation that broke the back of the Confederacy." Lincoln viewed Grant as "the rising general of the war." The high level of trust between the President and General Grant was largely responsible for the unity and effective employment of resources that followed.

Manpower, as a function of population, was one of the resources that favored the North. It was a function of the birthrate and immigrants from Europe, attracted to the North because of a stronger economic situation resulting in greater opportunity. To employ the manpower to an advantage, in 1864
Grant proposed concentrating men "in the actual firing line" for the campaign in Virginia to capture Richmond. As a result he pulled troops from Florida, Georgia and Carolina, and he reduced troops in rear areas. Grant's concept was to defeat the South by "continuous hammering."

Gradually the constant hammering would have a telling effect on the South's field armies. Externally the calculus of strategic power seemed certain, in time, to favor the North by a considerable margin. Internally, in 1864 the outcome was less certain because President Lincoln faced an election. Interestingly, all candidates in opposition favored a cease-fire and a negotiated end to the war. Lincoln was the only candidate clearly in favor of continuing the fight to defeat the South and restore the Union. Had Lincoln lost to General McClellan, the North's main political and strategic driving force would have been eliminated by political decision of the people. Fortunately for the Union, encouraged by the success of General Sherman at Atlanta and Admiral Farragut at Mobile Bay, the electorate rallied behind Lincoln and he won handily. With that election victory the South's last hope of secession, independence, and preservation of the status quo disappeared.

The positioning of the "Grand Nationalist," President Abraham Lincoln in another 4-year term allowed the decisive hammering campaign of General U.S. Grant to continue unimpeded. For both sides it meant thousands of casualties
and seemingly endless bloodletting. For the South, in particular, it meant the loss of the status quo, the end of slavery, and the subordination to federal control. For the North once again to be the economic leader in a true Union, it meant the achievement of political and strategic objectives, opportunity for unparalleled growth and a new sense of strategic purpose in the world.

V. Conclusion

The purpose of this paper was to examine the economic base of the United States upon which General Ulysses S. Grant's final campaign of the American Civil War rested.

In comparing the stages of growth between the North and the South, it is apparent that the North was much more advanced than the South. In economic terms, the North was experiencing unparalleled growth in virtually all sectors of the economy, while the South, as a whole, was stagnant, experiencing little relative growth. The South was in the traditional society stage of economic growth. The North, on the other hand, was experiencing fundamental growth that would leap to rapid industrial expansion and take-off.

The growth in the South was limited primarily to cotton production and that was constrained by the available land and the crop that could be produced through slave labor. Manufactured goods that were required were produced mostly by the North and European nations. Even the textiles resulting
from Southern cotton were produced in the North. Since the South was so dependent on imports, she suffered greatly because of the naval blockade imposed by the North. Import of manufactured goods was shut off, and consequently the South’s ability to supply, arm and pay for a modern army for protracted conflict was reduced.

Paying for an army and governmental services required a financial system. Prior to 1860 financial institutions and systems had been based in the North. Consequently the South had no established national mechanism to pay for the cost of the war through tariff or tax or bond. As a result the Confederacy borrowed heavily and caused spiraling inflation that passed most of the financial burden on to lower and middle class whites.

Where the picture in the South was one of economic and social stagnation that limited opportunity for expansion of the production base required to support armed forces, the picture in the North was the opposite in almost every respect that contributed to a calculus of national power. In economic and social terms the North was dynamic and progressive. The North was in a state of economic take-off, and it was entering the age of industrialization. Its production and financial systems were capable of arming and equipping and sustaining large armies in the field. The North’s transportation network of rails and rivers allowed men and materiel to move rapidly and continuously to support the Union’s strategy. And the
North's navy was able to blockade effectively the South - forcing it, when pressured across a distributed front by Grant's relentless final campaign, to the point of social and economic collapse.

President Abraham Lincoln, the great nationalist, provided the will to defeat the South and thusly preserve the Union; the Federal Army of General U.S. Grant provided the flesh and blood, and the robust Northern economy provided the bones, the structure that led to Union victory in the American Civil War. Armies rise from the economic and productive power of a people. Without a favorable economic power base, an army will turn itself inside out as it marches down the road to exhaustion.
ENDNOTES

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