Part I:
The Slide into Disunity; 1776 – 1859
An Analysis of Antebellum Economic Capabilities
in the United States

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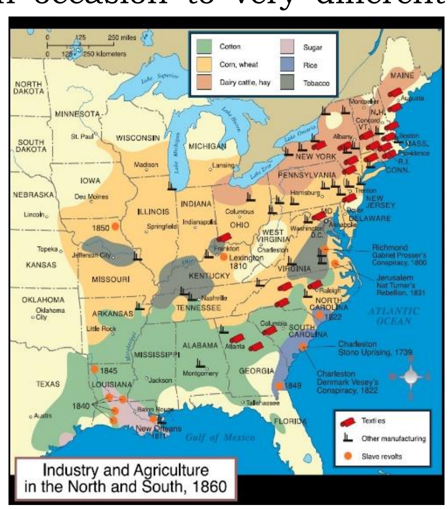
The American Civil War was the first to be considered a "modern war" in that it would involve the total assets and debits of the competing sides. Economically, the north could win such a war while the south could not. Given that simple statement, this paper will take a look at some of the things that support it in order to give the reader an idea of the comparative economic strengths and weaknesses of the opposing sides, North and South.

I will accomplish this by doing the following:

1. Demonstrating the industrial advantage of the north, including shipbuilding and weapons,
2. Describing the "Anaconda Plan" and how it worked,
3. Discussing the economic and military advantages of the railroads,
4. Discussing Union and Confederate financial policies,
5. Classifying three ways in which the sides financed the war,
6. Identifying the process of "runaway inflation" in the south, and finally,
7. Discussing how revenues were accrued and the importance of "King Cotton",

But let's start by just taking a general look at where the two sides stood at the beginning of the war, comparing their economic realities and capabilities.

In his book *Wealth of Nations*, published on 9 March 1776, English economist Adam Smith said, "Scarce any nation has dealt equally and impartially with every sort of industry . . . [some are] more favorable to industry . . . than to agriculture . . . Yet they have given occasion to very different theories of political economy, . . . Some magnify the importance of that industry which is carried on in towns [read: cities], others of that which is carried on in the country."



Industry and Agriculture in the North and South, 1860

In essence, this was a perfect description of the antebellum American situation. And so, 75 years later, we would see his words played out in the basic economic differences between the North and the South.

Granted, both sides engaged in agriculture, and both sides also had industry, but the degree into which they were invested as well as the types of products they produced were vastly inequitable.

Those inequities would show themselves in the decades culminating with the Civil War.

To emphasize that point, look at this map exemplifying the degree and types of industry and agriculture in the Northern and Southern states in 1860:

The concentration of industry is almost instantly obvious, but also pay close attention to the colors indicating the types of crops that were predominate in each section's agriculture. They illustrate another important point: Southern agriculture was almost entirely devoted to cotton and sugar except in Virginia and the border states where corn and tobacco predominated.

Why is this important? Because it points to a key deficiency in what would become the South's wartime economy: It couldn't produce the foodstuffs necessary to sustain itself and more importantly, its troops in the field. Most of its corn, grain, and meats were "imported" from either the North or from Texas, and once hostilities commenced, imports from neither of those areas nor the border states would be readily available for long.

In 1860, as shown in the illustration, the South was still predominantly agricultural, highly dependent upon the sale of staples to a world market. But while the southern states produced two-thirds of the world's supply of cotton, the South had little manufacturing capability, about 29 percent of the railroad tracks, and only 13 percent of the nation's banks. The South did experiment with using slave labor in manufacturing, but for the most part it was well satisfied with its agricultural economy.

The North, by contrast, was well on its way toward a commercial and manufacturing economy, which would have a direct impact on its war making ability. By 1860, 90 percent of the nation's manufacturing output came from northern states. They produced 17 times more cotton and woolen textiles than the South, 30 times more leather goods, 20 times more pig iron, and 32 times more firearms. And as far as war-making capability, the North produced 3,200 firearms to every 100 produced in the South.

Furthermore, only about 40 percent of the Northern population was still engaged in agriculture by 1860, as compared to 84 percent of the South. Rather, by 1860, 26 percent of the Northern population lived in urban areas as compared to their Southern counterparts of whom only about a tenth of the southern population similarly lived in urban areas.

In the 1860's South, from a total of ninety-six foundries and eighty-two rolling mills, only eleven were of sufficient size to meet production needs. Tennessee founding father James Robertson and his partners established the first iron furnace in the Western Highland Rim region in 1797. By the 1830s Tennessee iron had earned a reputation, according to 19th century ironmaster George Lewis, as being "superior to all other makes in America" and equal to iron from Sweden and Scotland. As a result, by the 1850s, Lewis reported, 20 furnaces, 10 forges and two rolling mills operated along the Cumberland River, producing annually 30,000 tons of pig metal, 10,000 tons of blooms (cross sections of ingots measuring at least 36 Square inches), and 5,000 tons of bar and boiler plate iron, valued at $1.7 million and employing 3,500 men. Montgomery County alone boasted seven blast furnaces, tuning out 8,000 tons of pig iron a year. But, as another indicator of southern industrial insufficiency, most of this iron was shipped to other states to be cast into usable items; the area had few foundries to mold the pig into cast iron products.

By comparison, in the Union the industrial output of Pennsylvania alone swamped the entire output of the South.

The production of military ordnance was another limiting factor in the success of the South, as in 1860 only Tredegar Ironworks in Richmond, could cast guns. (In the sixteen years prior to that date Tredegar had cast nearly 900 guns). Later, other foundries and ordnance centers, such as the one at Selma, were established, but these had to compete for the limited supply of iron and manpower.

One of the Union's main goals from the outset of the war was the implementation of a blockade against the Confederacy, as set out by General-in-Chief Winfield Scott in a letter to MG George McClellan on 6 May 1861. He would follow that up by planning to brief the cabinet on 29 June, but by then, the blockade had already been proclaimed. To accomplish this, shipbuilding would be critical! The North, in fact, having long had a maritime tradition, had plenty of facilities.

One of the North's greatest achievements was to develop a navy almost from zero. Three days after the bombardment of Fort Sumter, on April 15, 1861, Lincoln called for 75,000 volunteers to enlist for three months, including 18,000 sailors. When President Lincoln declared the blockade to be in effect, there were only 51 serviceable warships available in the fleet, only 27of which being in active service, and many of these were representing the flag in ports around the world. Of those, only 8 were in home waters where they were expected to blockade 3500 miles of coastline and about 180 ports of entry.

To achieve its goal, the North began by purchasing or chartering all suitable vessels, quickly arming them, and rushing them into service with crews who, in many cases, were as fresh to naval service as the ships, themselves. Within a year a vast construction program was under way. Shortly, about 300 new vessels were added to the navy and these started to make the blockade effective. By the end of the war, 418 vessels had been purchased, of which 313 were steamers, and an extra 208 warships were built under contract, over sixty of which were ironclads.

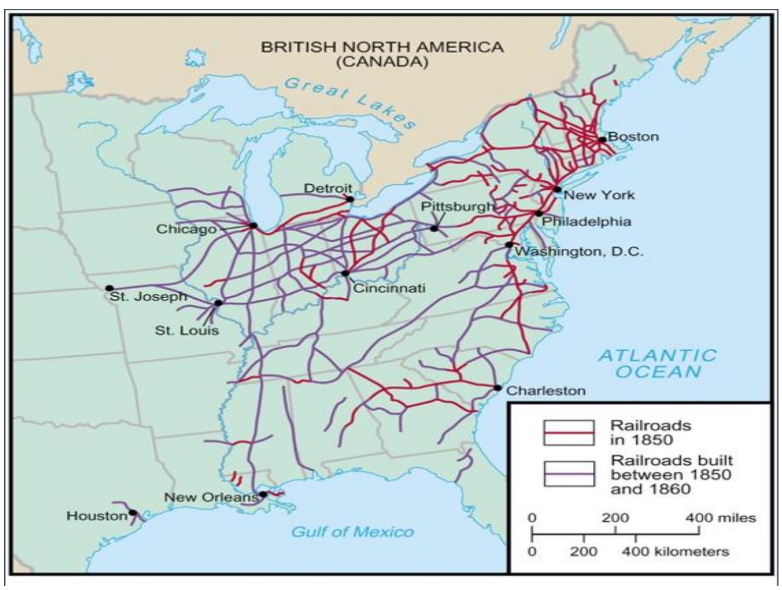
It had long been anticipated that Southern shipbuilding facilities would not be able to cope with demand, so by August 1861 Secretary of the Navy Stephen Mallory had already contracted for several powerful ironclads in the west. Few Southern shipyards were of sufficient size, and plants for the manufacture of machinery and armor were also inadequate.

To compensate, many small concerns sprang up throughout the South, but these were often sited on a riverbank in a hastily prepared clearing and frequently lacked adequate facilities. To put a number on it, in 1860 there were only thirty-six regular shipbuilding yards in the soon-to-be Confederate states. Between 1849 and 1858 the volume of ship construction throughout the United States was enormous. More than 8000 vessels were built, 1600 of them in the South.

Of the ten yards belonging to the US Navy in 1860, only two were in the South - one at Norfolk, and a smaller one at Pensacola, which was better suited to refitting vessels, although it had built several large warships. Norfolk was a far superior facility, having constructed thirteen major warships prior to 1861. But even this potential source of large output would not be enough when compared with the enormous shipbuilding resources of the Union which had many well-equipped navy yards and an abundant supply of private companies.

The American Civil War was the first in which large armies depended heavily on railroads to bring supplies. Railways were a liability in the South where the system was fragile and was designed for short hauls of cotton to the nearest river or ocean port. To make matters worse, during the war, new parts were hard to obtain, and the system deteriorated from overuse, lack of maintenance, and systematic destruction by Union raiders

In addition, the Confederacy suffered from two key deficiencies in its rail network. First was the route structure: most rail lines connected ports and river terminals to points inland. This lack of inter-railway connections made many railroads useless once the Union blockade was in place. Second was break of gauge; much of the Confederate rail network was in the broad gauge format, but much of North Carolina and Virginia had standard gauge lines. As troop movement began in earnest in May and June 1861, another crippling problem was discovered; many rail lines terminated in towns without connecting to continuing lines. Instead, cargo would have to be unloaded, driven across town, and then reloaded.



By 1861, two-thirds of all railroads in America were located in northern states. The Union had many industrial centers, and therefore could produce more railroads. And it also had more manpower to maintain those trains. Then, the Pacific Railway Act was established in 1862. Lincoln signed this law because it allowed help in construction of railroad and telegraph lines from the Missouri River to the Pacific Ocean. It also secured the ability for the government to use these same lines for postal, military, and other purposes, and placed all employees and officers under military authority.

By the fall of 1864, most southern railways were taken over by Union armies, and by the spring of 1864 those Union soldiers had demolished most of them. Advantage Union.

To sum up, let's take a look at a graph showing how the two sides compared resource-wise:

Notice that the only data set where there is any sense of parity is in "Exports", and that "advantage" began to disappear as early as 1862 in direct proportion to the effectiveness of the Union blockade coupled with the disastrous effects of "King Cotton"

Despite the disparity, the South came closer to winning than perhaps they should have. Let's take a look at HOW Economic and Fiscal policies were employed during the way, and what steps were taken, especially by the Confederacy, to maximize their opportunities.

Classical economic theory says that the labor shortage caused by a wartime decline in immigration and by the enlistment of workers in the army should normally enable wages to keep up with the cost of living if not exceed it. In other words, war should also combat inflation. This didn't happen at the start of the Civil War. Inflation soared in the North, and, while far less serious than in the south, price increases caused a 20% decline in real wages by 1864. James McPherson cites three reasons for this:

1. Slack in the economy left by the panic of 1857 and recession in 1861, causing a labor-shortages in the following years,
2. A speedup in the mechanization of key industries like harvesters, reapers, and mowers eased the demand for agricultural labor, and
3. A great increase in the employment of women.

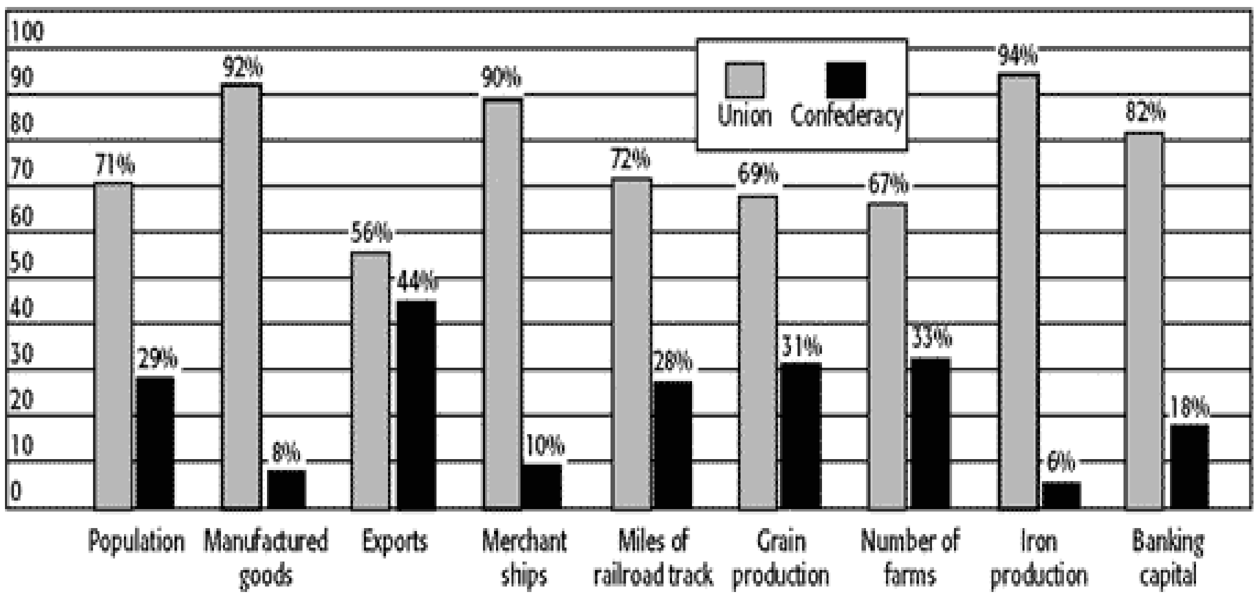
Let's look at how both sides handled their wartime economies and why one was more successful than the other.

Succinctly put, the Union financed the Civil War through war bonds, selling federal lands and instituting an income tax. The Union's greater tax and industrial base was obviously a major financial advantage. But they also get credit for recognizing that the war was going to be costly, and drastic measures might be necessary if the revenues necessary to support it were to be obtained.

The primary source of war revenue for the Union was war bonds. These were notes sold to individuals that promised repayment after a set period and interest paid in the interim. As much as 65 percent of the Union's war expenditures were funded by these bonds, although their value and the ease with which they could be sold varied along with the tide of the war. When Confederates attacked Union shipping and found success in the field, bond sales dropped, while Union victories helped increase revenue.

Another source of revenue came from direct taxes: first, excise and property taxes (from the 18th Century), then later, income taxes. These revenue laws were initially passed in order to reassure the financial community that the Union could repay its bonds. The excise and property tax laws were then repealed in 1807 as tariffs rose to prominence. But in 1861, Union Secretary

Resources of the Union and of the Confederacy



Source: Historical Statistics of the United States

of the Treasury Salmon P. Chase recognized the coming revenue shortfall and proposed doubling the war tax and reinstituted the excise tax on whiskey plus a new income tax. He expected a yield of some $50 million annually.

Treasury had to cover a $20 million shortfall for the first fiscal year of the war, and the solution was the first income tax in American history. Passed August 5, 1861, the legislation levied a 3 percent tax against incomes over $800 and was increased twice during the war. By 1864, the rates were 5 percent on incomes between $600 and $5,000, 7.5 percent for incomes between $5,000 and $10,000, and 10 percent for incomes above $10,000.

The Confederacy also instituted an income tax, but not until much later in the war. In fact, it didn't authorize its first national income tax measure until 1863.

The Confederate bill that finally passed after great debate was a graduated income tax. It exempted wages up to $1,000, levied a 1% tax on the first $1,500 over the exemption, and 2% on all additional income. The share of direct taxes in total for the South was only about 8%.

A major part of the reason why tax revenue did not play as large a role for the Confederacy was the individual states' opposition to a strong central government and the belief in states' rights, which precluded giving too much taxing power to the government in Richmond. But finally, the realities of the prolonged war, the necessity of paying interest on existing debt, and the dropin revenues from other sources, forced both the central Confederate government and the individual states to reach an agreement – of sorts.

President Lincoln wasn't sure as to whether or not the president had the Constitutional authority to "collect [such] duties." And he was particularly concerned about maintaining federal authority over collecting revenue from ports along the southeastern seaboard, which he worried, might fall under the control of the Confederacy. Those worries would prove to be correct.

From 1861 to 1864, there were two great changes in American financial policy: the establishment of a national banking system and the issue of paper currency.

Lincoln appointed William P. Fessenden United States Secretary of the Treasury upon Salmon P. Chase's resignation. Chase had just withdrawn a loan from the market for want of acceptable bids, and the capacity of the country to lend seemed exhausted. Currency had been enormously inflated: the paper dollar was worth only 34 cents; gold was at $280/ounce.

Fessenden at first refused the office, but at last accepted in obedience to the universal public pressure. When his acceptance became known, gold fell to $225/ounce. He declared that no more currency should be issued, and, making an appeal to the people, he prepared and put upon the market the seven-thirty loan, which proved a triumphant success.

The seven-thirty loan was established in the form of bonds bearing interest at the rate of 7.30%, which were issued in denominations as low as $50 so that people of moderate means could take them. He also framed and recommended the measures, adopted by congress, which permitted the subsequent consolidation and funding of the government loans into the 4% and 4.5% bonds. It not only secured an immediate market for government bonds, but also provided a permanent, uniform, and stable national currency. The financial situation now becoming favorable, he resigned on March 3, 1865, in accordance with his expressed intention, to return to the Senate to which he had now for the third time been elected.

The Confederacy, on the other hand, relied mostly on tariffs on imports and taxes on exports to raise revenues. These customs dues were preferred because they could be easily collected at the ports of entry into the country. However, with the imposition of a voluntary self-embargo in 1861 (intended to "starve" Europe of cotton and force diplomatic recognition of the Confederacy), as well as the blockade of Southern ports enforced by the Union Navy, the revenue from taxes on international trade declined.

Likewise, the financing obtained through early voluntary donations of coins and bullion from private individuals in support of the Confederate cause, which early on were quite substantial, dried up by the end of 1861. As a result, the Confederate government was forced to resort to other means of financing its military operations.

One of these, a "war-tax" was enacted but proved difficult to collect. Other direct taxes were available, but the Confederacy shunned them on principle. One legislator reportedly said, "Do you think, gentlemen, that I will consent to load my constituents with taxes when we can send to our printer and get a wagon load of money, one quire of which will pay for the whole?" A "Quire" is a sheet of paper folded to produce 8 leaves.

The Confederacy thusly had trouble raising revenue with taxes; nor could they borrow effectively in the international bond market. So CSA Treasury Secretary Christopher Memminger turned to an old stand-by — the printing press.

The Treasury bills issued during the war had a peculiar feature: They were redeemable for gold two years after the war ended, which meant that the value of the bills was partially tied to expectations of victory for the Confederacy. But so rapid was the expansion of the Confederate money supply that at one point during the war, the orders for new currency exceeded the printing capacity of the Treasury's presses. To fill the order, the Treasury began to accept counterfeit currency as valid to further expand the supply of money. This promptly precipitated an era of hyperinflation resulting in the price level in the South rising by roughly 10 percent per month during the conflict and by the end of the war, the price level had increased in the Confederacy by a factor of 92.

In contrast with the South, the Union successfully raised the $2.3 billion necessary to fund its war effort without causing hyperinflation. Though inflation was high in the North during the war — prices doubled in most Northern cities

Most of the available capital in the Confederate states was invested in slaves or in land dedicated to the production of cotton. There was no way to monetize these to support the war effort, and with a weak banking system unable to handle the financial demands, it largely collapsed. Richmond turned to smaller houses and speculators, who bought $15,000,000 in Confederate bonds with gold. That gold was then used to buy warships and supplies to be brought in by blockade runners.

While, unsurprisingly, military spending constituted the largest part of the national government's budget over the course of the war, over time the payment of interest and principal on acquired debt grew as a share of the Confederate government's expenditure. Initially, in early 1861, war expenditure was 95% of the budget, but by October 1864 that share fell to 40%, with the majority of the rest (56% overall) being accounted for by debt service. Civilian expenditures and spending on the Navy (recorded separately from general war expenditures in Confederate records) never exceeded 10% of the budget.

Effective monetary policy was a key factor in the Civil War as it is in any government; unfortunately however, it was a concept the Confederacy never mastered. In the early years of the American experiment, most of her revenues were derived from tariffs. All governments loved tariffs and import duties - they were extremely easy to collect when ships came to port, and that's why they comprised a major portion of American revenues prior to the Civil War. But with the onset of secession, things became a little less rosy.

The Southerners' main dislike of tariffs was that they really didn't get anything out of them. Why? Because tariffs were primarily designed to benefit manufacturing, which was mostly located in the North. Southerners believed they only served to drive up import costs for the South, causing them to spend more for needed products. So in essence, the South was perceived to be paying a penalty to increase the profits of the North.

This difference was exacerbated by the South's dependence on cotton. It had to be exported to find the looms needed to make it into cloth. So first, the South paid a duty to send it north for milling, and then they had to pay another tariff on importing the cloth for their necessities. Since they refused to invest in infrastructure, the process became a vicious circle.

Now let's talk about another economic factor: Money

On February 25, 1862, the Federal Congress passed the Legal Tender Act authorizing the issue of $150 million in treasury notes, commonly called "Greenbacks". This law began the issue of fiat money and changed the history of the nation's monetary policy.

Fiat money is inconvertible paper money made legal tender by a government decree. It only has value because the government maintains that value, or because two parties agree on said value. Fiat money was first introduced as an alternative to commodity-backed money – particularly that of gold and silver. Then in 1863 and 1864, Congress followed up on that by passing National Banking Acts to established a system of national banks, and create the United States National Banking System.

They encouraged development of a national currency backed by bank holdings of U.S. Treasury securities and established the Office of the Comptroller of the Currency as part of the United States Department of the Treasury and a system of nationally chartered banks. The Act shaped today's national banking system and a uniform U.S. banking policy.

The National Banking era was ushered in by the passage of the National Currency (later renamed the National Banking) Acts of 1863 and 1864. These Acts marked a decisive change in the monetary system, confirmed a quarter-century-old trend in bank chartering arrangements, and played a crucial role in financing the Civil War. One of the main objectives of the legislation was to provide a uniform national currency.

Prior to the establishment of the national banking system, the national currency supply consisted of a confusing patchwork of bank notes issued under a variety of rules by banks chartered under different state laws. Notes of sound banks circulated side-by-side with notes of banks in financial trouble, as well as those of banks that had failed (not to mention forgeries). In fact, bank notes frequently traded at a discount, so that a one dollar note of a smaller, less well-known bank (or, for that matter, of a bank at some distance) would likely have been valued at less than one dollar by someone receiving it in a transaction.

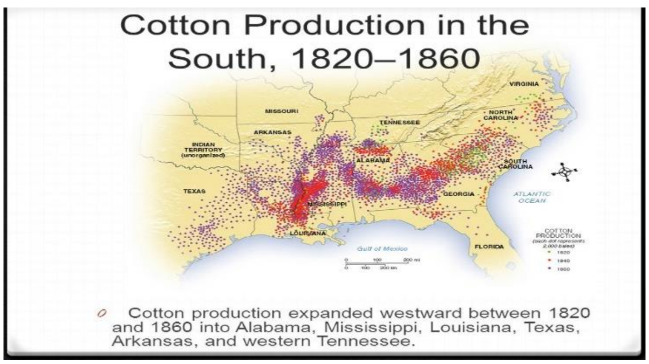
The confusion was such as to lead to the publication of magazines that specialized in printing pictures, descriptions, and prices of various bank notes, along with information on whether or not the issuing bank was still in existence. The legislation also placed a tax on notes issued by state banks, effectively driving them out of circulation.

A second element of the Act was the introduction bank charters issued by the federal government. From the earliest days of the Republic, banking had been considered primarily the province of state governments. By regularizing and removing legislative discretion from chartering decisions, the National Banking Acts spread free banking on a national level.

A third important element of the National Banking Acts was that they helped the Union government pay for the war. Adopted in the midst of the Civil War, the requirement for banks to deposit US bonds with the Comptroller maintained the demand for Union securities and helped finance the war effort. Surely, this element was an unintended consequence.

So, given all we have discussed, how did the Southern Confederacy ever think they could finance and maintain a successful secession?

This is a chart showing southern cotton production between 1820 and 1860. Each dot represents 2000 Bales. The GREEN dots, mostly in South Carolina, show production in 1820, the ORANGE, 1840, and the PURPLE, 1860. It's apparent that production soared in the two decades before the Civil War.



Here's another stat to back the picture up: Cotton production expanded from 750,000 bales in 1830 to 2.85 million bales in 1850. The standard size for a bale is 470 pounds. It sold for about 13.5 cents/pound, or $3.45 in today's dollars. In 1850, those cotton sales amounted to around $181 million in 1850 dollars ($4.6 billion today).

One more stat: The Report of the Treasury, Dec. 4, 1860 lists total exports as $400,122,296. The export of cotton alone for 1860 was $191,806,555. That equates to a hefty 47.9%; not too shabby.

On March 4, 1858, Southern planter James Henry Hammond delivered a speech to the United States Senate on the topic of the admission of Kansas to the Union under the Lecompton Constitution. His speech, best known as "Cotton is King," exemplified the powerful role of cotton in the American economy and the blurred lines between Southern slave labor and Northern industrial work. The ideas he expressed became a key ingredient of the nascent Confederacy's financial plan.

King Cotton Diplomacy became the Confederate strategy employed during the Civil War to withhold cotton from Europe so as to draw them into war. The South thought it had an ace in its sleeve with that policy, reasoning that winning international diplomatic recognition was essential for achieving independence. The hope was that if England or France got involved, it would include breaking up the Union blockade. So to add more leverage, the South began intentionally withholding cotton exports. The general assumption about cotton diplomacy was that cotton was such a valuable commodity it could be leveraged for diplomatic recognition.

At the outbreak of the war, though, Europe had a surplus of cotton, and by the time it started running out, it had successfully replaced the American cotton by cotton from India and Egypt. Besides, both France and Britain had strong economic interests in the North as well, and poor harvests there in 1861 and 1862 made King Corn far more important than King Cotton.

At the same time any eventual European intervention in the war was successfully prevented by Lincoln and Secretary of State William H. Seward by creating an impression that any support to the South would be regarded as a declaration of war on the Union. Neither Britain nor France wanted to get involved in the war in America. Even more, both preferred the status quo as advocated by the Union. The strategy was a failure.

Having looked at all these factors, what outcome, then, could one expect?

The first and most important point to make in this summary is that the Civil War was very expensive. In 1860 the U.S. national debt was $65 million. To put that in perspective, the national debt in 1789, the year George Washington took office, was $77 million. In other words, from 1789 to 1860, the United States spanned the entire continent, fought two major wars, and began its industrial growth—all the while reducing its national debt by nearly 16% in unadjusted dollars.

In 1865 the national debt stood at $2.7 billion. Just the annual interest on that debt was more than twice our entire national budget in 1860. In fact, that Civil War debt was almost twice what the federal government spent before 1860. Before the war, we had limited government, few federal expenses, and low taxes. In 1860, on the eve of war, almost all federal revenue derived from the tariff. We had no income tax, no estate tax, and no excise taxes. Even the hated whiskey tax was gone. We had seemingly fulfilled Thomas Jefferson’s vision: “What farmer, what mechanic, what laborer ever sees a tax-gatherer of the United States?” But four years of civil war changed all that forever.

All things considered, the war's most immediate legacy was growth: the federal government, the population, and the country itself all got bigger.

The size and role of the federal government began a dramatic expansion, starting a trend that has never reversed. Aggressive federal action spurred economic development from the war's outset. In 1862 alone, Congress passed the Homestead Act, the Morrill Land Grant Colleges Act, and the Pacific Railway Act, all of which helped pave the way for postwar industrialization, urbanization, and westward expansion. Legal scholars posit that this political victory of the Republicans was paralleled by a judicial revolution, a veritable "Second American Republic," with a strong nation-state governing a populace of national--not state--citizens, whose rights would be guaranteed by the federal authorities. Population growth kept pace with that of the central government. In the thirty years after the war's end, ten new states were admitted into the Union, and the country's population grew 142 percent between 1860 and 1900; 31 percent of that growth was due to immigration.

In effect, the Civil War completely altered the social, political, and economic landscape of the United States.