FINANCIAL CIVIL WAR:

THE CONFEDERACY'S FINANCIAL POLICIES, 1861-1864

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Yale ICF Working Paper No. 04-45

Abstract

Facing a more resourceful and asset rich opponent, the Confederacy chose to fund its military efforts relying almost exclusively on inflation financing, and waited to enact significant tax legislation until the Winter of 1863. Addressing this puzzle, I argue that the ideological predispositions developed over the antebellum period as well as the south's commitment to protect slave assets dominated legislators' preferences for financial policies. Only when the war turned against the Confederacy in 1863 did legislators update their beliefs about the probability of success and began to reevaluate their policy preferences. Examining the relationship between preferences and policy choices, I use population-average models to analyze roll call data.

I thank Scott Adler, Richard Bensel, Sarah Binder, Gerald Gamm, Donald Green, Ira Katznelson, John Lapinski, David Mayhew, Nolan McCarty, Jonas Pontusson, Stephen Skowronek, and Richard Sylla for helpful comments and discussions, and especially Kenneth Sokoloff. Orkun Sahmali provided excellent research assistance. Jeffrey Jenkins and Roger Ransom provided several data sets used in this study. The Institution for Social and Policy Studies at Yale University provided funding for this research.

> *"The political independence and power of a people depend upon that people's financial ability. It is a trite saying that (these) are as often determined by the length of the purse as by that of the sword."*
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> *The Charleston Mercury*, July 9, 1861.

1. Introduction

The Confederacy lost not only their military campaign against the Union, but also their financial struggle. Once the South seceded and the North began its military drive, both governments had to mobilize their armies and navies, develop military strategies, and finance these efforts effectively. Each faced a formidable enemy; the key decision-makers knew each other well from previous experience in Washington; and the military and financial strategies that had been employed throughout the ante-bellum period were common knowledge.

Given the sizeable overlap in knowledge, it would be plausible, if not expected, that both the Confederate and Union governments would pursue similar financial policies to set in motion and maintain their military forces. But this was not the case. In fact, the Union government was substantially more successful in funding the war, financing 20% of the war with tax revenues, 31% with loans, and 14% with notes.[1] In effect, the Union pursued a financial strategy that was sustainable over the long-term and successfully extracted resources from an economy that had previously been privy to an almost tax-free existence. The Union's efforts to collect taxes, including taxes on goods, income, and licenses, improved the government's credibility in the bond market, providing a legitimate source of revenue to meet interest payments. In addition, the Union limited the issue of non-interest bearing notes, stalling inflationary pressures.[2]

In contrast, the Confederacy relied almost exclusively on non-interest bearing notes, a massive 54% of total revenue, and 19% on loans, while taxes made up an almost trivial fraction of total revenue, less than 4% (see Table 2).[3] In addition, the Confederacy's reliance on taxation increased as the war progressed, most starkly from 1.6%, from August 1862 to September 1863, to 10.2% from October 1863 to October 1864 (see Table 2). If the South's smaller revenue base had been a constraint on financial strategies, tax revenues should not have expanded but shrunk over the course of the war.

From the privileged position of twenty-twenty hindsight, the South's attempts to fund the war seem short-sighted and at best inadequate, jeopardizing not only the war effort but potentially damaging the post -war economy for decades.[4] Given that the two governments had almost identical decision-making processes, political institutions, and knowledge of prior American financial policies, the difference in their strategies presents a puzzle. Were confederate decision-makers irrational? Were they short-sighted or less ambitious about victory? Were they obtuse about the importance of tax revenue, waiting as late as the fall of 1863 to exploit their tax base?

In this paper, I focus on the Confederacy's financial strategy over the course of the war while the Union provides an implicit comparative case. I argue that southerners were not irrational, nor were northerners exceptionally shrewd. Rather, each group of decision-makers, northern Republicans and southern Democrats, had predisposed preferences for financial policies which turned out to be more or less effective for war financing. During the antebellum period, roughly two ideological camps can be identified. Those who supported states' rights, an agrarian political economy, and slavery, politically embodied in leaders like Jefferson and Jackson, integrated into the Democratic-Republican, Jacksonian, and Democratic parties, and dominated by southerners; and, those who supported the aggrandizement of federal power, an industrial economy, and free states, represented by Hamilton and Clay, led by the Federalist, Whig, and Republican parties, and dominated by northerners. After secession, these two factions were no longer forced to compromise with each other and could enact their preferred policies. The northern Republicans preferred a national bank to support a large public debt as well as taxes; a set of financial policies that proved to be remarkably effective for war financing.

The southern Democrats, in comparison, strongly opposed a national bank and a large public debt. In addition, southerners were exceedingly hesitant about taxes in order to protect slave assets; since slaves comprised one of the largest resources of the southern economy, almost any productive tax would have to tap into slave assets as part of the revenue base. The combination of the south's predisposition about financial policies and the desire to protect slave wealth led to a financial strategy that was patently inadequate to finance a war. But southern decision-makers were not impervious to the war's progression. As the military campaign turned in the Union's favor and the south's financial strategy proved ineffective, southerners updated their choices and developed a new strategy significantly increasing taxes. Specifically, after the Summer of 1863, when the Confederacy's probability of winning declined precipitously, legislators from states that would face the largest political and social upheavals from emancipation were the most likely to support a strong tax regime to salvage the Confederacy's war effort.

While scholars have investigated a large number of questions about wars, there has been a dearth of studies that investigate the endogenous relationship between war finance and military success, and the subsequent change in financial strategies as the probability of defeat changes. The relationship between financial policies and war has been demonstrated in a number of seminal studies, which focus primarily on the government's ability to extract revenue from society. Tilly developed the succinct yet compelling argument that states make wars and wars make states.[5] The pressures of securing resources for war forced leaders to develop and improve their abilities to extract resources from the economy, in the process building a strong national state.[6]

Shifting the spotlight from European state development, Bensel studied the extent to which the Confederacy built a strong central state based on roll call analysis of the Confederate Congresses.[7] He identified the types of policies that contributed the most to state-building efforts and found that "support for state expansion was broadly distributed among the most important groups and classes in the South."[8] Any differences along party affiliation, secessionist stand, and regional divisions dissolved when the Confederacy had to counter the North's military advances. In addition to Bensel's work, economic historians have examined various aspects of the Confederacy's finances, including detailed studies of the Confederate Treasury, prices and interest rates, the South's ability to fund loans abroad, the impact of military events on gold prices and bond yields, and the effectiveness of the blockade.[9]

Analyzing the relationship between finance and war in the Confederacy, I build on these literatures in several ways. Rather than focusing exclusively on policy outcomes, I explore the motivations of southerners' policy choices and their origins in antebellum politics. Furthermore, if southerners had been committed to building a strong state, they would not have waited until the Summer of 1863 to enact significant tax legislation; instead, the Confederacy's ambitious state-building efforts were curtailed in order to protect slave assets from taxation. But financial strategies are not assumed to be constant either. As the probability of victory changed, decision-makers reevaluated their financial strategies. The success or failure of a military engagement, the turning points of a war, as well as the duration and outcome were not only a function of military strategies and technology, but also depended on the state's ability to gather and secure resources for the war effort. By taking into account the endogeneity of this relationship, the progression of the military confrontation becomes a critical link between war and financial policies. Finally, roll call votes are systematically analyzed to identify which legislators were more likely to oppose specific financial policies and which legislators were more likely to support them, revealing the persistent importance of slave assets to southern Congressmen.

It should be noted that because of the thinness and unevenness of the data the findings are suggestive rather than conclusive. The objective is to provide a plausible explanation of confederate financial policies that opens a new set of questions and lines of inquiry rather than to make definitive conclusions.

In the next section, I lay out a theory that explains legislators' preferences for different financial strategies as well as the key hypotheses. In section 3, I discuss the Confederacy's initial financial strategy driven by their commitment to states' rights and slave assets, reinforced by their misplaced hopes for foreign intervention and northern apathy. In section 4, I review the significant changes that took place during the Summer and Fall of 1863, including the failure of southern financial policies, the realization of the North's resolve and England's neutrality, and the North's progressive advancement into southern territory coupled with the emancipation of slaves. In Section 5, I examine the South's revised financial strategy and their attempts to reverse the financial crisis. In Section 6, I briefly address alternative explanations. In Section 7, I identify and measure the incentives that motivated Confederate Congressmen's choices over financial policies focusing on key roll call votes on loan, impressment, and tax bills, estimating population average models with generalized estimating equations to account for multiple observations on the same individual. I conclude in Section 8 with a summary and conclusion.

2. A Theory of Political Preferences and Financial Strategies

When political decision-makers were confronted with the immediacy of financing a war, the choices they made could be critical, not only for the duration or development of the war, but also its final outcome. In this section, I develop a theory of how decision-makers chose financial policies in which their choices were a function of (1) the status quo financial policies of the national government, (2) the regional and partisan ideologies of the antebellum period, (3) the protection of slave assets, and (4) the expected and updated probabilities of winning the war. Given the unevenness of the data, this theory is presented as a plausible explanation to invite further research rather than a definitive conclusion about the causal mechanisms of the Confederacy's financial policies.

Financial policies were deeply contentious during the antebellum period. As one of the few policies consistently on the national agenda, the conflict over finance policies became the principal divide of regional and partisan preferences. Two policies were at the core of the debates, the tariff and national financial institutions, such as the national banks and the Independent Treasury. Southerners opposed the tariff fearing that the British, the vital consumers of southern agriculture, primarily cotton, would retaliate with their own impost. Northerners, on the contrary, benefited as manufacturing remained relatively protected from international competition. Despite rancorous deliberations about tariff rates and commodities, the national government was funded almost exclusively with tariff revenue.[10] Tariffs consistently made up more than 80% of total receipts and only during the War of 1812, when the war with Britain brought trade to a halt, and when land sales reached their peak in the mid-1830s, did tariff receipts plummet. Impressively, the Mexican-American War was financed successfully and almost exclusively with impost duties.[11]

In contrast to the tariff, the history of financial institutions was much more tumultuous. The first bank was created and not renewed, 1791-1811, the second bank was created and its recharter vetoed, 1816-1832, the Independent Treasury was created and repealed, 1840-1841, the third bank was vetoed twice in 1841, and finally the Independent Treasury was recreated in 1846 and remained in existence until the Civil War. Throughout this seventy year period, regional and partisan divisions over financial institutions were remarkably steady. On the one hand, the Democrats – and their political forefathers, the Democratic-Republicans and the Jacksonians –were deeply opposed to the national bank and only supported the Independent Treasury as a necessary evil. Southerners both as members of the Democratic Party and as advocates of states' rights were solid members of this coalition. On the other hand, the Federalists, Whigs, and eventually the Republicans, had been avid defenders of the national banks. Once more, political ideologies overlapped with region and northerners were counted among the strong supporters of the national banks.

After secession, two governments were created, one dominated by northern Republicans and the other by southern Democrats, which differed significantly in their preferences for financial policies and, suddenly, could unilaterally act on these preferences. The status quo financial policies and the corresponding partisan and regional divisions interacted in significant ways with the sectional divide after secession. Focusing on the Confederacy, southern decision-makers were motivated by two incentives, their commitment to states' rights which was in many ways inherited from the politics of the pre-war years, and their desire to protect their most valuable assets, slaves, and its corresponding hierarchies.[12]

First, during the antebellum period southerners had become strong advocates of states' rights relative to the prerogatives of the federal government; a preference that persisted after secession. The protection of states' rights did not only provide the ammunition to fight the national banks, but was also, and probably more importantly, a mechanism to protect slavery and slave owners' rights from federal infringement. By allocating political power at the state rather than the federal level, representatives in the national government who opposed slavery could not outvote slave-state interests. The strategy entailed not only that states would have the authority to decide on slave policies but that any type of aggrandizement of federal power was a threat to states' rights. In a zero sum game, federal power had to be limited as much as possible to assure the supremacy of state-level politics and preferences. States' rights guiding principles included policy-making at the state level, a decentralized and small central government, and, most importantly, the protection of slavery across successive party regimes.

Although states' rights had been mobilized to protect slavery, they were not easily abandoned after secession. Southern decision-makers completely controlled their new federal government with almost none, if any, opposition to slavery. The policies that had been advocated under the banner of states' rights were represented and protected by the Confederate government and the extension of federal power would seemingly no longer threaten slavery but would rather be a source of continued protection. Southerners could now consider supporting a strong central state because it represented their interests.[13]

Nevertheless, Congressmen continued to emphasize states' rights. Senator Oldham of Texas described his concerns citing specific examples of federal infringement on state authority:

> The tendency to indoctrinate the people into the belief that there was no reliance in the State Government was the bane of the old republic, and would be, if not avoided, the bane of this. That government, from its commencement, gradually taught the people to centralize upon it, as the only reliance for their honour (sic) and welfare, and bought and bribed them not to rely upon the States themselves. The first measure was the establishment of a National Bank, the next the establishment of a Military Academy at West Point, and a Naval Academy at Annapolis, and so on.[14] (March 17, 1862)

Frustrated with the commitment to states' rights, Senator Johnson "desired to know if the Confederate Government was regarded ... as a government at all.... He was a State rights man, but was tired of hearing the sovereignty of the States thrown every day, by senators, in the teeth of government. If the government possessed no power, senators had as well go home at once."[15] (April 7, 1862) While not every decision-maker was unconditionally committed to states' rights, some congressmen retained their preferences for states' rights which resonated with their experiences during the antebellum years. As a result, the vindication of states' rights remained a latent preference among southern decision-makers.

Second, the South's secession from the United States was rooted in the fear that northeastern interests and the newly empowered Republican Party would continue threatening the southern "way of life," slavery and the consequent racial, political, and social hierarchies that had been built around it. Through most of the ante-bellum period, southern politicians worked to protect slavery by defending states' rights and opposing the aggrandizement of federal power. Gunderson argues that "because slavery was an attractive employment of capital and was expected to remain so, an enormous vested interest had been developed in its ownership by 1860."[16] He calculates that in 1860 the average slave income per free citizen was about $50 for the states of the Deep South while the average income for the Upper South was only $20. After abolition, the free citizens of the Deep South had an average plunge of 31% in income, while the income in the Upper South dropped by 17% (See Table 1). One study assessed that if slaves had not been emancipated, by 1890 their net marginal product would have been 52 percent greater than in 1860 and their investment value would have increased correspondingly.[17]

(Insert Table 1 about here)

But as Northerners, both in political and social circles, became increasingly opposed to slavery, coupled with westward expansion and the ascent of the Republican Party, Southerners no longer believed that they could maintain their "peculiar institution." Southerners saw in secession a political strategy that would protect slavery and throw off the yoke of the increasingly powerful northeastern industrial interests.[18] While scholars are still debating the role of slavery and the potential for abolition in motivating the secession crisis, there was certainly apprehension about protecting the South's most valuable assets, its slaves. [19] Slaves as a percentage of total property in 1860 averaged 46% for the Deep South, 35% for the Upper South, and 14% for the border states (See Table 1). Consequently, any tax that targeted property would not only affect large slaveholding states disproportionately but would also reduce their wealth.

Southerners' preferences for states rights combined with the protection of slave assets were facilitated by the status quo financial policies of the antebellum years to produce the Confederacy's financial strategy. Decision-makers could chose from several financial policies to fund the war, a national banking system, tariffs, long-term loans (bonds), notes (both interest and non-interest bearing), taxes, and impressments. Each of these policies could have been consequential for the war effort but mapped onto congressmen's incentive structures in different ways. Financial policies that jeopardized states' rights or that threatened the value of slave property would have been excluded from the agenda while policies that threatened neither would have been incorporated.

Given southerners' historical animosity to national banks and the explicit subordination of states' rights, it would have been exceedingly unlikely that decision-makers would have supported a third national bank or a national banking system.[20] Tariffs, on the other hand, were a more plausible alternative as they threatened neither states' rights nor slave assets directly and, ideally, would prove as useful as they had been for the national government before secession. Furthermore, given the low volume of imports into southern ports before the war, a tariff policy would unlikely have prompted British retaliation.[21]

The government's efforts to secure long-term loans, in bond markets both at home or abroad, would not have led to an increase in federal capacity nor devalue slave property. Placing debt required a minimal state apparatus and could be administered by a few bureaucrats with limited resources. Similarly, issuing notes was also a cheap method of financing the war. As long as the printing presses stood by, an increase in notes was simply a matter of enacting another round of prints. Neither bond nor note issues required a central government with strong organizational capabilities, an effective bureaucratic apparatus, regular or direct interactions between the state and the polity, or a reliance on slave property.

Taxation, on the other hand, was the emblematic policy of state-building and in an economy where one of the primary resources was slaves this was a threat to both states' rights and slave assets. The state's ability to extract resources from society was directly related to the expansion of its bureaucracy. Furthermore, taxation, depending on the target tax base, easily and frequently brought the government within striking distance of many of its citizens. The problem of taxation was the problem of empowering the federal government. In addition, the most the most common form of direct taxation had been property taxes during the antebellum period.[22] Given that slave property comprised large proportions of total property, most tax policies, especially ones that tapped into one of the south's most promising resource bases, would jeopardize slave assets.[23]

Policies implementing and regulating impressments do not easily translate into federal power although they clearly put slave assets in peril. While impressments certainly strengthened the central government as it took upon itself the right to buy goods from private citizens, they were clearly a wartime measure that was administered by the military. Once the war ended, impressments would cease. But impressments targeted goods that could directly be used in the military effort, including cattle, food products, and, most importantly, slaves. As a result, impressment policies were a hazard to slave assets and could, in one swoop, wipe out a slave owner's wealth.

But financial strategies were not static; policy choices were reevaluated as new information became available and previous strategies proved inadequate.[24] The winner and loser in a war is seldom known with certainty, and, while in hindsight the outcome may seem obvious, as the war progresses the military advantage shifts from side to side before finally swinging to the victor. We should not presume, therefore, that strategies, in particular financial strategies, would remain constant and unresponsive to changes on the battlefield. Instead, we would expect a dynamic relationship between military engagements and financial policies. As the demands of the war increase, as financial policies become inadequate, and as the military advantage shifts over the course of the war, decision-makers adjust their financial strategies to accommodate the new demands.[25]

Specifically, when decision-makers believed that the probability of defeating the Union was high, their preferences for states' rights and the protection of slave assets dominated their financial policies. Southerners could not solely concern themselves with the political and economic organization of their society; they had to defend themselves against the Union's unrelenting refusal to grant secession and a formidable military opponent. Faced with the immediate demands of a war time economy, financial policies did not only impact the future of the federal government and slave assets but also the probability of mounting a successful military offensive. The government's ability to engage in victorious military confrontations increased as its power of extraction and control over the population increased.[26] Consequently, as the probability of winning declined, political actors re-examined their ideological and economic commitments and were willing to implement a more diverse financial strategy.

To summarize, congressmen's support of different financial strategies was a direct consequence of their varying opposition and commitment to states' rights and slave assets conditional on the expected probability of winning their independence. I derive two sets of hypotheses from this theory, one before and one after new information about the war's progression reached confederate decision-makers. First, when decision-makers believed that the probability of winning was relatively high, all of them would have opposed a national bank or a national banking system. In contrast, all congressmen would have been fully supportive of raising tariffs, issuing bonds and notes.

Support for taxes would have been extremely limited in order to protect states' rights and particularly slave owner assets. Ideally, goods, services, and licenses would have been taxed most heavily. If there were any taxes on property, they would have been limited, for example, a one-time tax, and tax rates would have been low and uniform across property to avoid a progressive tax on slave owners.[27] Specifically, decision-makers who represented states with large slave assets should have been more likely to oppose tax legislation. Impressments would have been opposed primarily by decision-makers who came from districts with high slave assets, but opposition would also have come from congressmen who personally owned a large number of slaves.

Second, when new information was integrated into the decision-making process, congressmen's financial strategies began to change. For the Confederacy, the war had turned against them and the Union was making significant advances into southern territory. This would have provoked decision-makers to adjust their ideological and financial commitments and to modify their prior financial strategy in light of new evidence. Congressmen representing districts that had the most to lose economically, politically, and socially from emancipation would have been the first to reevaluate their preferences and revise their choices. Furthermore, because of significant military setbacks, a national bank, bond or note issues would have been infeasible given the increase in sovereign risk. As a result, decision-makers would have honed in on revising tax policies to continue financing the war.

To test these hypotheses, I first examine Congress' initial financial strategy during a period when the probability of defeating the Union was still relatively high. I then identify the months when the probability of winning declined precipitately and analyze the set of financial strategies that Congressmen chose once they updated their beliefs about a potential victory. I conclude by analyzing available roll call data on key loan, tax, and impressment policies in order to test whether Congressmen's commitment to states' rights and especially slave assets influenced their choice over financial policies conditional on the probability of winning.

3. Congress' Initial Financial Strategy

Confederate decision-makers, quickly assembled in the Provisional Congress and later in the Confederate Congress, had to formulate the first financial strategy to protect their newly claimed independence. Their choices were driven by a combination of incentives, paramount among them their objective to protect states' rights and slave assets. The first set of financial policies included tariffs, bonds, notes, limited taxes, and some impressments. As expected, a national bank or national banking system did not even make it on the congressional agenda.

The tariff was one of the first financial policies enacted, although it became almost immediately ineffectual due to the Union's successful blockade of southern ports. The first tariff law was passed on March 15, 1861, with a 15% import duty on various goods; a second law was passed on May 21, 1861, with import duties ranging from 5% to 25% depending on the good. Congress' attempt to fund the war with tariffs was by far the least successful strategy. For example, the tariff law of May 21, 1861, was expected to bring in $12 million, but receipts from July until December, 1861, were only \$63,138 while expenses at the customs houses for the same period were \$63,774. On July 9, 1861, customs collectors at all small ports were dismissed[28] and the receipts from imports from February 1861 to February 1862 were less than 1% of total revenue.[29]

Over the first years of the war, both notes and bonds were issued in abundance. The government was initially able to place a sizeable amount of bonds on the domestic and foreign bond market. The State Department "in charge of winning over friends abroad, extend credit abroad, (and) purchase southern cotton" was able to issue these bonds with a mere 29 civil servants.[30] The first financial legislation of Congress was the \$15 million loan authorized on February 28, 1861; its interest guaranteed by duty on raw cotton exported after August 1861. Subscriptions were invited on March 16 and within the first two days of the loan's opening \$5 million had been subscribed. But as hostilities at Fort Sumter escalated, by mid May \$5 million was still untaken and the loan was not completed until October of that year.[31] As the war continued, domestic investors hardly subscribed to bonds, and only foreign investors lured with the promise of cotton bought Confederate bonds. From February 1861 to February 1862 bonds comprised about \$22 million, 26.5% of total revenue; from February 1862 to the end of the year it was only \$8.6 million, about 7.7% of total revenue, and, in the first nine months of 1863 it was almost \$13 million, about 25.7% of total revenue (all receipts in real values, see Table 2).

(Insert Table 2 about here)

In addition to bonds, notes were issued in abundance. At first the issues were small, with the original issue of \$1 million authorized on March 9, 1861; the issue was doubled on August 3, 1861. By August 19, 1861, the Treasury Secretary was authorized to issue notes as the public required up to \$100 million. On December 24, 1861, the cap was increased to \$150 million in notes; on April 12, 1862 the cap was \$215 million; six months later the cap was once more raised to \$218 million. On March 23, 1863, Congress authorized the Treasury Secretary to issue up to \$50 million in notes per month. In real terms, the amount of notes issued dominated the Confederacy's Treasury with larger and larger issues as the war continued.

In addition to bonds and notes, taxation provided an indispensable alternative to financing the war. The issue of taxation was not lost on the public and was discussed repeatedly in newspapers, even before the entire South had seceded. For example, on February 26, 1861, a commentator wrote that "a mere government organization, without money, is a lifeless corpse. Money itself is lifeblood. ... The raising of the taxes and the expenditure of the taxes – these constitute the grand difficulty in all free governments."[32] Public sentiments were echoed, albeit in more subtle ways,, by public officials. For example, in a private report the Secretary of Treasury informed Howell Cobb, a member of the Provisional Congress, that "'the most certain and most enduring resources must be sought out by the Government and taxes are the only sure reliance under all circumstances. Loans come from only a portion; duties reach farther, yet not all; but direct taxes pervade the whole body politic and bring forth the contributions of the willing and unwilling.'"[33]

Despite these public and official concerns, Congressmen refrained from enacting a comprehensive set of tax laws. The first major tax law, compelled by the lack of tariff revenue, was passed on August 19, 1861 instituting a uniform 0.5% tax on every $100 worth in property which included real estate of all kinds, slaves, securities, cattle, horses, pianos, and carriages. While the tax had potential, it was flawed in several respects. It was a one-time tax that was not renewable; it was only to be collected one year later, in May 1862; the tax rate was relatively low; and, there was no attempt to institute progressive tax rates that would place a larger burden on more lucrative assets, such as slaves.

But financial pressures only mounted. Representative Kenner from Louisiana argued that "the true basis of credit, public or private, was revenue or property.... He knew that many were disposed to 'Go ahead, Mr. Memminger, keep your printing press going and 'twill carry us safely to the end of the war'; but in reality our condition was similar to that of our forefathers ... in revolutionary times."[34] (September 23, 1862) And when inflation financing seemed to have reached its absolute limit, the Treasury Secretary essentially proposed a band aid solution to the government's financial problems communicating to Congress on April 14, 1863 that the expected government expenditures for the next six months would exceed the legal limit of $50 million in notes advising "that the expedient of laying taxes in kind be resorted to."[35]

Almost two years after enacting the first tax, Congress passed a second tax law on April 24, 1863. It included a 10% tax in kind on many foods, an 8% tax on various goods[36], a 2% income tax on income above $1,500[37], an annual business registration tax that ranged from $500 for bankers to $50 for jugglers, and a tax on gross sales, with distillers taxed the highest rate at 20% and butchers and bakers taxed at 1%. It is notable that this tax law was mostly regressive and included neither a tax on slaves nor slaveholders' license fees. Slave assets, along with other property, were safely tucked away from tax collectors.[38] Given the first law's low tax rate and late collection and the delay in enacting the second major tax law, real income from taxes was minimal. In 1862, it was about $5 million, and a mere $421,000 was collected in the first half of 1863, each as tiny proportions of total revenue.

In addition, the government also enacted impressment laws. Impressments were used by the military to requisition goods and supplies by paying for them primarily with confederate notes.[39] Although the regulation of impressments was not enacted until March 1863, the military had begun impressments earlier and did so according to local regulation. With the first impressment law, the impressment of property, including slaves, was regulated to ensure consistency and regularity in price and procedure across the country.[40] Similar to tax policies, impressments were half-heartedly implemented. As impressments increased and government prices declined relative to market prices, farmers began planting crops that would unlikely be impressed, such as cotton and tobacco. Although Congress recommended in March 1863 that food should be planted, they did not enact this policy. "Speaking almost as a bystander, President Jefferson Davis 'noted with interest [Georgia's] prohibiting the cultivation of cotton in the state during the war.' He hoped 'for concurrent action of the other States and observed that 'the possibility of a short supply of provisions presents the greatest danger to successful prosecution of the war.'"[41]

4. <u>The Confederacy Under Siege</u>

The initial financial strategy pursued by the Confederacy might have seemed adequate and politically feasible at the beginning of the war. But once the South's military and financial prospects had begun to sink into distress, southern Congressmen revamped their initial choices. A number of factors clearly shifted the advantage to the Union in the summer and fall of 1863, including the South's inadequate finances, England's neutrality, the Union's military advances, and the Emancipation Proclamation that freed more and more slaves as the war progressed.

First, some observers could have predicted that the continuous issuance of Treasury notes would eventually lead to hyperinflation. Illustrative of these inflation rates, between 1863 and early 1865, the price of wheat increased by almost 1,700%, bacon by 2,500%, and flour by almost 2,800%. By the end of the war, prices for shoes rose to $600 per pair in some counties and a simple wool overcoat could cost as much as $1,500.[42] In fact, the volume of currency was so large that some printers had to use old and used paper to satisfy the demands of the Treasury. Some printers even supplemented their paper supply with lining papers and wallpapers to continue printing notes.[43]

In Figure 1, the monthly price index, wage index, and money supply index are plotted over the course of the war. Several aspects of the graph are noteworthy. Wages did not keep up with the price index as early as January 1863, and strongly diverged after September 1863. Furthermore, the price index far outstripped the money supply index after September 1863 indicating that people's confidence in the government's currency was declining faster than the rate at which notes were pumped into the economy.

(Insert Figure 1 about here)

Compared to the Union, the South's inflation rate was significantly higher, indicating that inflation was not solely due to the expected depreciation that accompanies most wars. In Table 3, the value of one gold dollar is compared with both US and Confederate notes. While the North did suffer from inflation, with the price of gold more than doubling, the South's currency declined to $18 for one gold dollar in December 1863 and $34 for one gold dollar in December 1864. The first significant decline in the Confederacy's currency seems to have taken place in the Summer of 1863, with a threefold depreciation from $5 in March to $14 in October for one gold dollar; at no other point did the value of the currency decline at this rate in the span of seven months.

(Insert Table 3 about here)

As the money supply flooded the economy, capital markets dried up. In addition, military setbacks, especially the news of Gettysburg and Vicksburg in early July 1863, led to a sharp decline in Erlanger bonds.[44] "By the fall of 1863 McRae (the Confederate agent abroad) had decided that it would be impossible to raise a large amount of money on good terms unless the Confederates began to have better success in war."[45] Doubts began to overshadow the potential for military success and members of Congress realized that loans would no longer be forthcoming. In the words of Congressman Conrad, a member of the Ways and Means Committee, "to nations embarrassed in finances, and carrying on a great internal war, loans and taxes were the only two ready remedies that present themselves. Everybody knows we cannot borrow nor negotiate a foreign loan."[46] (June 9, 1864)

And as the government's financial future became bleaker, expenditures bulged. From July to November 1861, real total spending topped $18 million, in the next four months, real spending increased to $51 million; from August to December 1862, real expenditures were $43 million, and from October 1863 to April 1864, real spending dropped to $13 million; a plunge ominous of events to come.[47]

To make matters worse, the Confederacy's hope that England's reliance on cotton would guarantee their financial and military support in the war were crushed. Commentators were suspicious of European interference early in the war, and if any had been hopeful their viewpoints were not published in the press. As one writer put it on August 27, 1862, "Is it not high time for our Commissioners to be recalled from their humiliating position at the Courts of Europe?"[48]

Even those Congressmen who had been expectant about England's engagement, voiced their doubts about this strategy albeit later than the popular press. On March 12, 1862, Senator Semmes "had long since abandoned the idea that 'cotton is king.' He had thought that nations would violate the laws of nations upon the basis of necessity. This belief had proven invalid.... We must abandon the idea of all foreign legislation in regard to our affairs."[49] About a year later, on March 9, 1863, Senator Maxwell, joined by Senator Yancey, "was not of the number who believed that there were hopes of peace by the intervention of foreign powers. Everywhere on the horizon, he could see nothing but war and preparations for war."[50]

The advances of Union troops into southern territory, especially during the summer and fall of 1863, increased the Confederacy's stake in the war from a defensive engagement to a war of survival. By the end of the Provisional Congress on February 17, 1862, the Union controlled most of Missouri, Kentucky, as well as the northwestern portion of Virginia. During the first Session of the first Congress, the remaining districts of Missouri and Kentucky were occupied and Nashville fell to the Union on February 25. After the first Session, federal troops captured New Orleans gaining control over the strategically important mouth of the Mississippi River. The second and third Sessions of Congress were relatively uneventful and there were few changes in areas under Union control.

But after the end of the third Session, on May 1, 1863, the Union successfully gained control of the Mississippi River while the Confederacy surrendered at Vicksburg in July 1863. Federal forces also captured Knoxville, Tennessee, and won the battle of Chattanooga in November 1863 before the fourth Session of Congress began on December 7, 1863. By the second Session of the second Congress, the confederacy was clearly going to be defeated. "A final Union campaign around Richmond and a siege of the city began in the late fall of 1864, and the last session of the Confederate Congress was literally spent within sight and sound of the front lines."[51] (See Table 4 for the number of districts occupied throughout the war by state.)

(Insert Table 4)

The Union's occupation of southern territory was not only critical from a military perspective but also brought to reality Lincoln's Emancipation Proclamation. Lincoln announced on September 22, 1862 that beginning on January 1, 1863 all slaves would be freed in states that had seceded from the Union. The proclamation raised the stakes of the war as the South could no longer rejoin the Union with slavery intact; "reunification now meant the destruction of their way of life."[52]

Initially the proclamation had a more symbolic rather than real impact since those parts of the Confederacy that were already under northern control were exempt and the Union had no means to enforce the proclamation in the unoccupied territories. The impact, therefore, was not immediately felt and depended on Union military victories. But as the North occupied more and more of the Confederacy, thousands of slaves were set free by the advancing federal troops and the decree became a reality. The Proclamation may have decreased the South's chances of winning since it gave the North the moral upper hand and support among the African-American population both in occupied and unoccupied territories. On the other hand, emancipation may have further motivated southerners to mobilize a full-blown war effort since the Confederacy's survival was now the only outcome that would ensure the preservation of slavery.

Hyperinflation, lack of credit, and the ever increasing demands of the war, coupled with England's neutrality, the North's military successes and resolve, and the threat of emancipation, set the stage in the late fall of 1863 for a reevaluation of financial policies.

5. **Updating Financial Strategies to New Conditions**

As funding for the war became increasingly scarce, the government's lack of tax revenues was scrutinized and reevaluated. Tariffs had almost immediately been futile. Increasing the money supply would have only forced the inflation rate higher, and issuing bonds would have been in vain given that domestic subscriptions had never fully materialized and foreign subscriptions had quickly dried up in light of the North's military progress and the blockade.

One commentator argued on August 15, 1863, that the cause for the currency's rapid depreciation was that no taxes had been enacted and if taxes had been raised earlier, the large volume of Treasury notes would not have been necessary.[53] Congressman Gilmer agreed, stating on December 12, 1864, that "in the progress of the war we have been compelled to issue a large quantity of Treasury notes, when, perhaps, it would have been more to the true interest of the country to have resorted at first to high taxation."[54] The Finance Committee reiterated Gilmer's sentiments writing in their report that "the Government should have resorted to taxation and the sale of bonds for the means of executing its expenditures.... It would have been far better (than) ... to threaten with ruin both public and private credit."[55] Another commentator blamed the lack of taxes for the government's increasingly dismal creditworthiness. He wrote on June 12, 1863 that “the sponge of credit has been exhausted, by being squeezed always, without the slightest replenishment. The legitimate income of a Government is derived from taxation.... But the Confederate Government has not yet seen the first cent from that source – that is to say, it has never had a cent which it might consider its own. It has been spending promises to pay.”[56]

Impressment policies were also unsuccessful, especially in the latter years of the war. While the military relied frequently on impressments to keep their troops fed and clothed, people began hiding their property or selling their goods before they could be confiscated. Farmers also stopped growing crops that could be used by the military to avoid impressment resulting in food shortages for the military.[57]

The impact of these financial policies was not constrained to civilians but directly felt by the troops. As early as April 1862, the army’s meat ration was reduced from twelve to eight ounces and again reduced by half in January 1863.[58] In addition to meager supplies, soldiers were often not paid. “One of the primary causes of demoralization among Confederate fighting men was their government’s failure to provide adequate pay – or, indeed, in many cases, to provide any pay whatever.”[59] The unfortunate soldiers stationed beyond the Mississippi were never paid after September 1863 because of the difficulty of transporting funds. And when General Lee examined the causes for the high desertion rates, he found that the lack of food and pay were at the root of the problem.[60]

Faced with the progressively worsening prospects for the Confederacy, Congress finally reconvened on December 7, 1863, after ending the third session on May 1, 1863, with the objective to turn the war in their favor. The Confederacy could no longer ignore demands on its resources and expenditures had to be financed; relative to other policy alternatives, taxation was the last hope to provide financing. The connection between military success and finances was summarized in the Report of the Committee on Finance printed on January 25, 1864: “No scheme of finance can be maintained in the face of serious military reverses. For, after all, public credit depends as much upon the sword of the soldier who defends the country as upon the pen of the law-giver who regulates its form and character.”[61]

Consequently, three important tax laws were passed, one in February and two in June of 1864; each increased existing rates and expanded the revenue base. On February 17, 1864, Congress taxed all property including slaves at 5%; all gold, silver, and jewels were taxed at 10%; all shares or interest in banks, companies or businesses were taxed at 5%; monies in any form were taxed at 5%; and taxes on profits were increased to 10%, with companies that made more than a 25% profit taxed at 25%. One commentator, discussing the February 1864 tax law, wrote: "For it is easier for a camel to go through the eye of a needle than for a rich man to escape this tax law."[62] This law was followed by the June 10, 1864, law raising rates again by increasing all existing tax rates by 20% of the previous rate.[63] And on June 14, 1864, profits were taxed an additional 30%.

These were significant changes to the previous tax regime; there was a tenfold increase in the tax rate on property which included slave assets; taxes on all goods and profits were doubled; and, the tax was renewable each year. But with the uniform tax rate on property, once again slave assets were safeguarded from being taxed at higher rates.

Even though the economy's resources were strapped by 1864, the new tax laws were not simply valiant enactments that rang hollow in the vaults of the Treasury. The War Tax of August 19, 1861, brought $17 million into the coffers of the Confederacy by the end of July 1863. While taxes collected under the Acts of April 24, 1863, February 17, 1864, and June 14, 1864, totaled $118 million, more than ten times as much. Even though the average rate of state contributions declined from 87% to 62%, the absolute amount of taxes paid was still considerable given that the war was in full swing.[64]

In aggregate terms, the proportion of the revenue that came from taxes increased over this period. From February to August 1862, the Treasury collected $3.7 million in real terms; during the following five months, it was $1.2 million; and from January to September 1863, the same months that the South faced serious financial, political, and military setbacks, it was only $421,000. But from October 1863 to April 1864, tax revenues improved considerably jumping up to $2.2 million with an additional collection of $1.3 million from April to October 1864. (See Table 2) In aggregate, revenue from taxation increased from $1.6 million, collected during September 1862 to September 1863, to $3.5 million collected in the following year, from October 1863 to October 1864. While this would not necessarily reverse the Confederacy's financial conditions, it was a remarkable achievement. The Union was occupying more and more of the Confederacy shrinking the tax base, and tax evasion was rampant given citizens' dreary expectations about victory. (In the Appendix, I summarize the Confederacy's major financial laws, and also include the Union's key financial laws, critical battles, and political events.)

Although there had been resistance to taxes before the summer of 1863, reservations about the expansion of the federal government and the protection of slave assets were reconsidered once the survival of the state itself was at risk. The Confederate government adjusted to new circumstances changing their initial financial strategy, even if these efforts were most likely too late to have changed the outcome of the war. It is important to note that the tipping point at which Confederate Congressmen decided to change their financial strategy is not ex ante specified. Over the course of the war the South's prospects for winning clearly declined, but it is difficult to pin down the months when the Confederacy's chances of winning shifted from a possibility to a near improbability. Instead, the evidence gathered here is used to illustrate that the Confederacy was damaged on a number of fronts, financial, international, and military, over a few months and that a shift in financial strategies occurred to meet the changing demands of a war economy.

6. Alternative Explanations

Before examining Congressmen's incentive structure that led to the initial financial policy and its subsequent adjustment, I briefly address some alternative explanations that could account for the South's financial strategies. First, they were unaware of the policy alternatives and the importance of raising taxes. But the Union's financial laws were often reviewed in southern newspapers and in a number of debates southern Congressmen refer to the Union's financial policies.[65] Furthermore, the Confederate Treasury had been organized on the same model as Hamilton's; several high ranking Treasury officials joined the Confederacy, including Philip Clayton an Assistant Secretary in Buchanan's administration who took the same position in Montgomery; C.T. Jones who came to the Register's Office "as chief clerk, well equipped, bringing from Washington copies of all the forms in use in the several bureaus;" and W. H. S. Taylor who had worked for the US government for twenty-five years as second auditor.[66] In addition, many members of the Confederate Congresses had previously held office in the US government; thirty-two percent had been in Congress; and, three percent had held cabinet or diplomatic posts.[67]

Second, Confederate Congressmen were unable to overcome the collective action dilemma inherent in tax policies because they lacked the leadership and coordination of strong parties.[68] But if that had been the case, they would not have been able to coordinate on many other policies such as note issues, loans, impressments, confiscation, and conscription.

Third, the Confederacy did not pursue tax policies as a viable strategy because they knew they could never raise sufficient funds to counter the North. If this were accurate, then we would not have observed the increase in tax receipts in the period from October 1863 to April 1864. Furthermore, if Southerners had had that much foresight, they should also have realized that they could not have won a war against their northern counterpart and abandoned their dreams of independence as soon as the first soldier was down.

7. Roll Call Analysis: Congressmen's Preferences and Financial Policies

In this section, I test the relationship between Congressmen's commitment to states' rights and slave assets and their support of various financial policies by examining roll call data during the first and second Congresses. I focus on the House because it is a larger sample of decision-makers and because more of the debates in the House were recorded, in contrast to the Senate which held almost all debates in secret session.

For the policies available, the roll call votes confirm the analysis above. Congressmen, regardless of state, district, or personal characteristics, supported loans. In contrast, impressment policies were motivated by legislators' personal slaveholdings but only partially by state-level slave assets. Taxes were most adamantly opposed by congressmen representing states with large slave assets relative to other personal property. But there was a shift in support for tax legislation. Once the war turned in the North's favor, congressmen representing states with the most to lose economically, politically, and socially from abolition were more likely to favor new tax legislation than other congressmen even though they had been some of the staunchest supporters of states' rights during the antebellum period.

Before I discuss the selection of roll calls, the model for Congressmen's vote choices, and the measures I use to operationalize preferences, I briefly review the appropriate statistical model for this type of data. For many of the bills the same Congressmen voted on each proposal, violating the assumption of a single dichotomous response for a sample of statistically independent subjects. As a result, each Congressman represents a cluster of correlated observations of the outcome where the interdependence is not temporal. Furthermore, all of the cluster-specific covariates do not vary over the observations but are time invariant (except for one control variable). The most appropriate model in this case is a population average model.[69]

Suppose we have m subjects or clusters, in this case Congressmen, and n observations per subject, in this case roll calls. The dichotomous outcome variable is Y_{ij} and the vector of covariates is $x'_{ij} = (1, x_{1ij}, x_{2ij}, \ldots, x_{pij})$ for the *j*th observation in the *i*th cluster. In the population average model we average "over the statistical distribution of the random effect and assume that this process yields the logit"[70]

$$g(x_{ij}, \beta_{PA}) = x'_{ij}\, \beta_{PA}$$

In this model we model the average response over the sub-population that shares a common value of X; no cluster-specific or subject-specific effects are included. The estimated coefficient, β, corresponds to the average effect, across the entire population, of a one-unit change in X_{ij} on $Pr(Y_{ij})$. The statistical distribution of the random effects has not been determined yet, only the marginal or population proportions have the logit function given above. Because the population average model does not take advantage of independent variables whose values vary within clusters, this model is best suited for covariates that are constant for each subject.

To estimate this model the method of generalized estimating equations (GEE) is used. The GEE approach uses a set of equations that resemble weighted likelihood equations. The weights are based on an approximation of the underlying covariance matrix of the correlated within-cluster observations. In order to estimate the model, we need to make assumptions about the nature of the correlation, i.e. the working correlation. While there are a number of working correlations to choose from, two correlation structures are used in this estimation, the exchangeable and the independent correlation structures.[71]

The exchangeable correlation assumes that the correlation between pairs of responses is constant, that is the values of the dependent variable "are assumed to covary equally across all observations within a cluster"[72], $Cor(Y_{ij}, Y_{il})=\rho$ for $j \neq l$. The independent correlation structure assumes that the correlation between pairs is zero, $Cor(Y_{ij}, Y_{il})=0$ for $j \neq l$, in which case the GEE equations simplify to the likelihood equations obtained from the binomial likelihood for the multiple logistic regression model. "It turns out that, in a wide variety of settings, assuming exchangeable correlation gives good results."[73]

Although the GEE estimator produces consistent estimates of β even if the working correlation structure is not specified correctly, the variances will not be consistent when the working correlation is misspecified. As a result, the "robust" estimate of the variance-covariance matrix is used in this estimation providing consistent estimates even when the working correlation is misspecified. The estimated coefficients and standard errors can then be used to estimate odds-ratios and to test the significance of the coefficients.[74]

To analyze voting patterns, I focus on key House votes. I adhered to the following selection criteria: The bill had to address one of the financial policies, tariffs, long-term loans, note issues, impressments, and taxes. The direction of the vote relative to the policy had to be clear, whether based on the wording of the bill, a final passage vote, or debates in Congress that provided enough detail to identify the vote. In other words, it had to be clear what they were voting on and whether a yes vote was for or against the policy.[75] Given the lack of public debate, only a few roll calls could be identified where the direction of the vote was unambiguous. There were six votes on long-term debt, two votes on impressments, and eight votes on taxes; no votes were available on tariffs or note issues (See Table 5 for a summary of the votes).

(Insert Table 5 about here)

Of the six votes on long-term debt, five of them showed the same pattern; each bill that passed increased the government's capacity to borrow. The first two loan bills were passed to prop up the Confederacy's credit, providing for an interest rate of eight percent and requiring the Committee on Ways and Means to report a bill for paying interest on the debt. Two bills were passed authorizing foreign loans. And one bill was not passed, which would have postponed the consideration of a bill to issue another round of bonds. The one exception was the bill to authorize the President to negotiate a foreign loan (vote number 342-129) which did not pass.

The two votes on impressments were final passage votes on the authorization and regulation of impressments of private property. The first passed on February 13, 1863 and the second passed on March 28, 1863.

Finally, there were eight votes on taxes, three before the end of Congress' third Session, May 1, 1863, and five votes after the start of the fourth Session on December 7, 1863. During the third Session, two of the three measures to increase taxes were rejected. First, an amendment on March 20, 1863 to end all taxes under the bill after a period of three years passed. Second, a vote on March 21, 1863 to apportion $28 million annually among the states did not pass. The third vote on final passage of a bill to assess and collect direct taxes and internal duties passed on March 23, 1863.[76]

After the end of the third Session, the Confederacy's probability of winning declined significantly as financial pressures were mounting and the North's military advances became increasingly more successful. Responding to the new demands and pressures of the war five tax bills were proposed, each increasing taxes, and each was passed. These included a bill to tax, fund, and limit the currency, a bill to levy additional taxes for the common defense, a resolution to instruct the Committee on Ways and Means to report on providing revenue by taxation, a bill to amend the tax law by increasing real estate and securities taxes, and a bill to provide means to support the government by an additional increase in the tax rate.

This data set has two weaknesses. First, I was unable to identify any votes on note issues and could not test the argument that all House members regardless of their incentive structure would have favored issuing notes. Although based on all of the recorded debates, I found no evidence that any legislators opposed note issues until inflation rates skyrocketed. Second, while I was able to collect votes on tax bills both during the Third Session and after the start of the Fourth Session, I did not find votes on debt and impressments after Congress' Third Session. This was most likely the result of legislators' focus on tax legislation after debt issues, note issues, and impressments had failed to finance the war effort. Nonetheless, I can only test the hypotheses for debt and impressment policies during the early phases of the war.

I model Congressmen's vote choice as a function of their commitment to states' rights and their stake in victory, the probability of victory, state level slave assets, the distribution of slaves at the district level, personal financial interests, as well as a control variable for districts that were under Union occupation.[77] Operationalizing commitment to states' rights and stake in victory is by far the most challenging measure. I argue that the first seven states to secede from the nation, *Deep South*, had the most to loose politically, socially, and economically, from defeat to the Union. They were also southern states that were most likely to have been supportive of states' rights.

The seven Deep South states, except for Texas, had the highest percent of slaves in the population and also the largest number of slaves per owner (See Table 1). In addition, as noted above, the average income per free citizen from slavery was about $50 for the Deep South states but only $20 for the Upper South. The plunge in income after abolition was also more deeply felt in the Deep South, with an average decline of 31% in income for free citizens, compared to a drop of only 17% in the Upper South (See Table 1).

Given these demographics and its concurrent social hierarchies, these states would experience the largest upheavals if slaves were freed. The impact would be felt not only by the elite slave owners but even more so by the poorer whites who might suddenly be politically and socially indistinguishable from their black counterparts. The white south was united and "in its political form slavery became the cherished, visible symbol of independence, honor, and equality precisely because it embraced the most fundamental values of southern white society held in common by slaveowner and nonslaveonwer alike."[78] In addition, if former slaves gained the right to vote, their large numbers in the Deep South could pose a series challenge to white men's monopoly on political power in local and state governments.

A binary variable is by no means the best measure of congressmen's states' rights preferences and stake in victory. Many congressmen would be forced into one of the two polarized preference measures, even though their preferences would be better gauged along a spectrum. Unfortunately, the measures that can be utilized for confederate congressmen are limited and while a binary variable is not an ideal measure, it is exogenous to the roll call data and captures to a certain extent the states' long-standing political tradition of discontent with an expanding federal government and the social and political reliance on a slave society.

For tax policies, a regime variable is included to capture congressmen's beliefs about the probability of victory. *Regime* is a dummy variable equal to 0 in the first period, before the 1863 recess when the probability of winning was higher, and equal to 1, after the 1863 recess when the probability of success dropped significantly. To test the hypothesis that taxes were more likely to be supported by legislators whose states had the most to loose from defeat, but only when the probability of victory decreased, an interaction effect is included for regime and Deep South, *Regime *Deep South*.

To capture preferences for the protection of slave assets, the percent of slave property relative to total personal property at the state level is included, *% Slave Property* (see Table 1). Two measures are used to control for district level interests and constituency pressures, the percentage of slaves in the district, *% Slaves/District*, and the number of slaves per owner in the district, *Slaves/OwnerDistrict*.[79] Since the percentage of slaves and slaves per owner are highly correlated, at 0.933, I use the two measures interchangeably.

In addition, each Congressman may have been influenced by his material wellbeing, measured as the number of slaves he owned, *Slaves of MC*, and the value of his estate, *Estate of MC*.[80] These variables are primarily included as controls, except for the impressment votes when personal gains and losses may have motivated legislators' vote choice. Finally, a control variable is added that indicates whether a Congressman's district was occupied by Union forces, *District Occupied*. One could argue that when legislators' districts were occupied, they had every incentive to pass impressment and tax policies since their constituencies would not be affected and would also be the most urgently pressed to reverse the Union's progression into the South. This was the only variable that varied within observations, but turned out to be insignificant and did not change any of the substantive results.

For each set of roll calls, bonds, impressments, and taxes, I estimated two population average models to test the key hypotheses; the results are summarized in Table 6. To test the hypotheses, the 10% level of significance is used. Although conventional tests are at the 5% level, the data is uncommonly thin and uneven and a lower threshold may uncover suggestive voting patterns.

(Insert Table 6 about here)

With respect to bonds and loans, congressmen should not have differed in their support despite differences in regional affiliation, slave assets, slave populations, personal characteristics, or occupied districts. The findings support the hypothesis. None of the variables are significant in either of the models. Even though the binary variable for Deep South is barely significant in the first model, the result does not hold if slaves per owner is included instead of percentage of slaves in the district.

Second, impressment policies would have been more likely opposed by legislators who wanted to protect their personal assets from impressments or who represented states that would be most affected by impressments. The best measure of a Congressman's material interests is the number of slaves he owned since slaves could be impressed by the army to provide basic labor. In contrast, the value of his estate is a less appropriate measure as it was primarily based on his real estate holdings which could not easily be impressed. The results in Table 6 support the hypothesis that legislators with larger slave assets were more likely to oppose impressment policies than legislators with smaller slave assets. The evidence that legislators also represented their states' interests in protecting slave assets is weaker; the coefficient on slave property is only significant in the first but not the second model.

In Table 7 the odds ratio of voting for impressments are calculated for congressmen who owned more slaves relative to congressmen who owned fewer slaves. For model 1, the odds of voting for impressment policies computed from the proportion of legislators who had 10 more slaves than some reference level of slave ownership is 0.344 times that based on the proportion of legislators who were at the reference level of slave ownership, holding all else constant. For the proportion of legislators who had 20 more slaves than some reference level of slaves the odds dropped to 0.248. Similar odds ratios are computed based on the estimates of model 2. Again, all results are substantively the same with an independent correlation structure.

(Insert Table 7 about here)

Third, there should have been opposition to tax policies especially from legislators who represented states with large slave assets. But once the war turned in the Union's favor, representatives from states with the most to loose from defeat, the Deep South, would have been more likely to change their policy choices and would have supported tax policies. The results in Table 6 seem to support the hypotheses. First, the coefficient for slave assets is negative and significant indicating that legislators from states where slaves comprised a large proportion of personal property where more likely to oppose tax legislation protecting their states' most valuable resources.

Second, as expected the regime variable was significant and positive in both models given that every tax bill included in the second period passed. Each legislator had a higher average probability of voting for tax legislation once the probability of defeat increased. In addition, the interaction effect between Deep South and

Regime was also positive and significant, although barely. It is interesting to note that legislators from the Deep South were no more likely to oppose or support tax legislation when the chance of victory was high indicating that opposition to taxes was not exclusively motivated by the commitment to states' rights. But once defeat was near, representatives from the states with most to loose politically and socially from abolition were significantly more likely to support tax legislation and to reevaluate their prior opposition.

The odds ratios are listed in Table 8. Although the coefficient on slave assets was significant, the magnitude of the effect was quite small. The odds of voting against taxes was only 0.96 times that for a congressman from a state with 10% more slave assets than some reference level of slave assets, and 0.95 for a congressman from a state with 20% more slave property. The effect of regime change on legislators' votes from the Deep South was much larger. In the first model, the odds of voting for tax legislation when the probability of victory was low, that is after the 1863 recess, based on the proportion of legislators who were from the Deep South was 1.464 times that based on the proportion of legislators not from the Deep South, holding all else constant. These results remain substantively the same with an independent correlation structure.

(Insert Table 8 about here)

Summarizing the key results, loans were supported by all congressmen regardless of incentive structures. Decisions about impressments were most influenced by legislators' personal slave interests. Tax policies were most likely opposed by representatives from states with large slave assets as a proportion of total personal property. But once the war turned in the Union's favor, legislators from states that expected the largest political and social upheaval from abolition, the Deep South, reevaluated their strategy and were more likely to support tax legislation than legislators from the Upper South.

8. Summary and Conclusion

Confederate decision-makers were motivated primarily by their preferences for states' rights and the protection of slave assets when they had to choose the country's first financial strategy. When decision-makers believed that secession could be successful, the financial policies they chose included a tariff, large bond and note issues, extremely limited taxation, and impressments. Given their state, district, and personal characteristics, Congressmen were equally likely to have supported loans, although impressment policies were significantly more likely to be opposed by legislators with large personal slave holdings; and taxes were most adamantly opposed by congressmen representing states where slave assets were large relative to other personal property. It is striking that slave assets were protected even when the south was fighting for survival.

But as the probability of defeat increased, financial policies were revised, most importantly, tax rates were increased and tax collection was annual, including those on slave assets. Congressmen from states with the largest expected economic, political, and social upheaval from emancipation reevaluated their preferences and were significantly more likely to favor the new tax.

We need to take preferences seriously in order to understand financial strategies which shape the progression and potentially the outcome of wars in important ways. In addition, we should not assume that a financial strategy, once selected, would continue indefinitely, but take into account the interaction effect between finance and war. The government's ability to fund the war influenced its military successes; in turn, the tides of war pressured decision-makers to reevaluate financial policies. Taking this dynamic into account illuminates not only the policies that were enacted but also the war's duration and outcome.

I would not argue that the Confederacy could have defeated the Union if they had grasped the financial demands of war sooner and mobilized all resources immediately, but they could have increased the probability of winning independence. Small powers have won big wars, such as the Revolutionary War and the War of 1812; in both instances the government had to address a grave financial situation. Furthermore, the impact of financial policies is often cumulative. If the Confederacy had raised taxes during the first stages of the war, they may have also been able to borrow more easily both at home and abroad and could have limited their currency issues.[81] While the South could not compete with the North's resources, a sustainable financial strategy could have prolonged the war and weakened the Union's resolve.

Table 1: Demographics and Earnings of Southern States

State	Percentage Slaves	Number of Slaves Per Owner	Cotton Production (bales of ginned cotton, in 000s)	Per Capita Income ($)	Slave Earnings Per Free Citizen ($)	Earnings Other Than From Slaves Per Free Citizen ($)	% Reduction of Free Citizens' Income From Abolition	Slaves as Percentage of Total Property
Deep South								
S. Carolina	57.2	15	353	80	57	102	36	51
Mississippi	55.2	14	1,202	125	74	179	29	45
Louisiana	46.8	15	778	131	54	175	24	41
Alabama	45.1	13	990	75	50	70	42	43
Florida	43.9	12	65	89	48	95	34	58
Georgia	43.7	11	702	84	40	96	29	52
Texas	30.2	8	431	(100)	26	108	24	31
Upper South								
N. Carolina	33.4	9	145	79	21	87	19	47
Virginia*	30.7	9	13	88	20	100	17	35
Arkansas	25.5	9	367	95	21	100	17	33
Tennessee	24.8	7	296	75	17	76	18	25
Border States								
Kentucky	19.5	6	—	83	10	88	10	23
Maryland	12.7	6	—	(90)	6	94	6	16
Missouri	9.7	5	41	(90)	5	93	5	14
Delaware	1.6	3	—	n/a	n/a	n/a	n/a	2

*Excludes counties which later formed West Virginia.
Source for per capita income, earnings, and reduction in earnings: Gunderson, Gerald. 1974. "The Origins of the American Civil War." *Journal of Economic History*. 34:917. (Values in brackets were interpolated from adjacent states by Gunderson.)
Source for percentage of slaves, number of slaves per owner, cotton production, and native-born white population: 1860 Census.
Source for slaves as percentage of total property in 1860: Einhorn, Robin L. 2001. "Species of Property: The American Property-Tax Uniformity Clauses Reconsidered." *The Journal of Economic History*. 61(4): 974-1008.

Table 2: Confederacy Receipts, Real Values (in thousands)

	Feb. – May 1861	May – June 1861	July – Nov. 1861	Nov. 1861 – Feb. 1862	Feb. – Aug. 1862	Aug. – Dec. 1862	Jan. – Sept. 1863	Oct. 1863 – Apr. 1864	Apr. – Oct. 1864	**Total**
Taxes	730	60	116	174	3,741	1,206	421	2,204	1,347	10,001
All other non-debt revenue	388	225	146	106	333	1,412	2,199	1,899	657	7,365
Bonds	0	6,835	8,073	7,115	2,258	6,357	12,845	9,955	717	54,156
All other interest bearing debt	0	1,024	689	0	21,101	20,578	2,681	1,464	489	48,028
Non-interest bearing notes	0	0	23,002	34,513	32,215	22,446	31,754	9,688	6,477	160,096

Source: Burdekin and Langdana. 1993. "War Finance in the Southern Confederacy, 1861-1865." *Explorations in Economic History*. 30: 352-376. p. 355.

Table 3: Value of One Gold Dollar Compared with US Currency and Confederate Treasury Notes

	1861	1862		1863		1864		1865	
	Conf.	Union	**Conf.**	Union	**Conf.**	Union	**Conf.**	Union	**Conf.**
January		1.03	**1.25**	1.45	**3.00**	1.55	**20.0-20.5**	2.15	**45-60**
February		1.03	**1.25**	1.61	**4.00**	1.55	**22.5-25.0**	2.06	**45-65**
March		1.01	**1.30**	1.54	**5.00**	1.63	**23.0-24.5**	1.79	**70-60**
April		1.01	**1.40**	1.51	**5.50**	1.74	**22.0-23.0**	1.46	**60**
May	**1.10**	1.03	**1.50**	1.49	**5.50**	1.79	**18.0-21.0**		
June	**1.10**	1.06	**1.50**	1.45	**7-8**	2.06	**17.0-19.0**		
July	**1.10**	1.15	**1.50**	1.30	**9.00**	2.59	**20.0-23.0**		
August	**1.10**	1.14	**1.50**	1.25	**12-13**	2.59	**22.5-25.0**		
September	**1.10**	1.18	**2.50**	1.34	**12-13**	2.25	**22.5-27.5**		
October	**1.15**	1.29	**2.50**	1.47	**14.00**	2.08	**26.0-27.0**		
November	**1.15**	1.31	**3.00**	1.48	**15-17**	2.33	**27.5-33.5**		
December	**1.20**	1.32	**3.00**	1.51	**18-20**	2.32	**34.0-49.0**		

Source: Todd, Richard Cecil. 1954. *Confederate Finance*. Athens: The University of Georgia Press. p. 198.

Table 4: Union-Occupied and Disrupted Confederate Congressional Districts, by State
Districts Occupied/Disrupted/Total Percent

	1st Congr. – 1st Sess.			1st Congr. – 2nd Sess.			1st Congr. – 3rd Sess.			1st Congr. – 4th Sess.			2nd Congr. – 1st Sess.			2nd Congr. – 2nd Sess		
State (Districts)	O	D	%	O	D	%	O	D	%	O	D	%	O	D	%	O	D	%
Missouri (7)	7	0	100															
Kentucky (12)	12	0	100															
Tennessee (11)	2	3	46	5	2	64	5	2	64	10	0	91	10	0	91	11	0	100
Virginia (16)	3	1	25	3	2	31	5	2	44	5	2	44	7	1	50	11	1	75
Arkansas (4)	0	1	25	0	2	50	0	2	50	3	0	75	3	0	75	3	0	75
Alabama (9)	**0**	**1**	**11**	**0**	**1**	**11**	**0**	**1**	**11**	**0**	**2**	**22**	**0**	**2**	**22**	**0**	**2**	**22**
Louisiana (6)				**2**	**1**	**50**	**3**	**0**	**50**	**3**	**1**	**67**	**3**	**2**	**83**	**3**	**2**	**83**
Mississippi (7)				**0**	**2**	**29**	**0**	**2**	**29**	**1**	**4**	**71**	**1**	**4**	**71**	**1**	**4**	**71s**
Georgia (10)										**0**	**1**	**10**	**0**	**5**	**50**			
S. Carolina (6)													**0**	**4**	**66**			
N. Carolina (10)													0	3	30			
Florida (2)																		
Texas (6)																		

Note: States in bold compose the Deep South.
Source: Martis, Kenneth C. 1994. *The Historical Atlas of the Congresses of the Confederate States of America 1861-1865*. New York: Simon and Schuster. (p. 29)

Table 5: Roll Calls Analyzed

	Vote Number	Congress-Session	Date	Bill	Vote Type	Yeas	Nays
Bonds and Loans	154-60	1-2	Oct. 2, 1862	To provide for repayment at 8 percent interest		43	18
	164-70	1-2	Oct. 6, 1862	That Ways and Means report a bill for paying interest on the debt	final resolution	49	15
	283-70	1-3	Jan. 20, 1863	To authorize a foreign loan	final passage	58	8
	342-129	1-3	Jan. 20, 1863	That the president be authorized to negotiate a foreign loan		14	50
	222-9	1-3	Jan. 28, 1863	To authorize a foreign loan	final passage	56	18
	466-253	1-3	April 16, 1863	Vote postponing consideration of a bill to authorize issue of bonds		25	33
Impressments	232-19	1-3	Feb. 13, 1863	To authorize and regulate impressment of private property	final passage	52	7
	258-45	1-3	Mar. 28, 1863	To regulate impressments	final passage	41	33
Taxes	252-39	1-3	Mar. 20, 1863	That no tax be levied after a period of three years under this bill		37	33
	395-182	1-3	Mar. 21, 1863	To levy tax of $28 million annually apportioned among the states		23	55
	255-42	1-3	Mar. 23, 1863	For the assessment and collection of direct taxes and internal duties	final passage	50	30
	524-16	1-4	Jan. 16, 1864	To tax, fund, and limit the currency	final passage	38	32
	526-18	1-4	Jan. 22, 1864	To levy additional taxes for the common defense and govt. support	final passage	47	25
	742-17	2-1	May 23, 1864	To instruct Ways & Means to report a bill to provide revenue by taxation	final resolution	74	6
	760-35	2-1	June 1, 1864	To amend the tax laws, including increase in tax rates for real estate, bonds, securities, etc.	final passage	47	39
	1051-204	2-2	Feb. 23, 1865	To provide means to support the government; increase in tax rate	final passage	44	30

Table 6: Roll Call Analysis

Population-Average GEE Model with Exchangeable Correlation Structure+ and Robust S.E.
(p-values in parentheses)

	Bonds		Impressments		Taxes	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Constant	0.011 (0.988)	-0.189 (0.842)	3.526 (0.130)	3.779 (0.115)	1.945 (0.054)	1.887 (0.078)
Deep South	-0.445 (0.103)	-0.418 (0.141)	0.888 (0.138)	0.952 (0.121)	-0.148 (0.613)	-0.142 (0.624)
Regime (=1 after 1863 Recess*)	n/a	n/a	n/a	n/a	0.575 (0.016)	0.573 (0.016)
Regime* Deep South	n/a	n/a	n/a	n/a	0.529 (0.109)	0.538 (0.105)
% Slave Property	0.004 (0.731)	0.006 (0.525)	-0.040 (0.098)	-0.037 (0.134)	-0.017 (0.074)	-0.016 (0.088)
% Slaves/District	1.001 (0.121)	—	0.056 (0.964)	—	0.291 (0.637)	—
Slaves/Owner District (ln)	—	0.177 (0.564)	—	-0.310 (0.601)	—	0.056 (0.849)
Slaves of MC (ln)	-0.137 (0.144)	-0.110 (0.269)	-0.464 (0.044)	-0.446 (0.058)	0.113 (0.310)	0.122 (0.290)
Estate of MC (ln)	0.072 (0.372)	0.069 (0.392)	-0.013 (0.959)	0.010 (0.968)	-0.179 (0.121)	-0.179 (0.116)
District Occupied	-0.293 (0.323)	-0.254 (0.383)	-0.520 (0.369)	-0.530 (0.359)	0.022 (0.923)	0.021 (0.928)
	N=333		N=110		N=493	

+ All results remain substantively the same with an independent correlation structure.
* The recess between the Third Session and Fourth Session of the First Confederate Congress was from May 1, 1863 until December 7, 1863.
MC – Member of Congress

Table 7: Odds Ratio of Voting for Impressments

	Model 1	Model 2
MCs with 10 additional slaves	0.344	0.358
MCs with 20 additional slaves	0.248	0.233

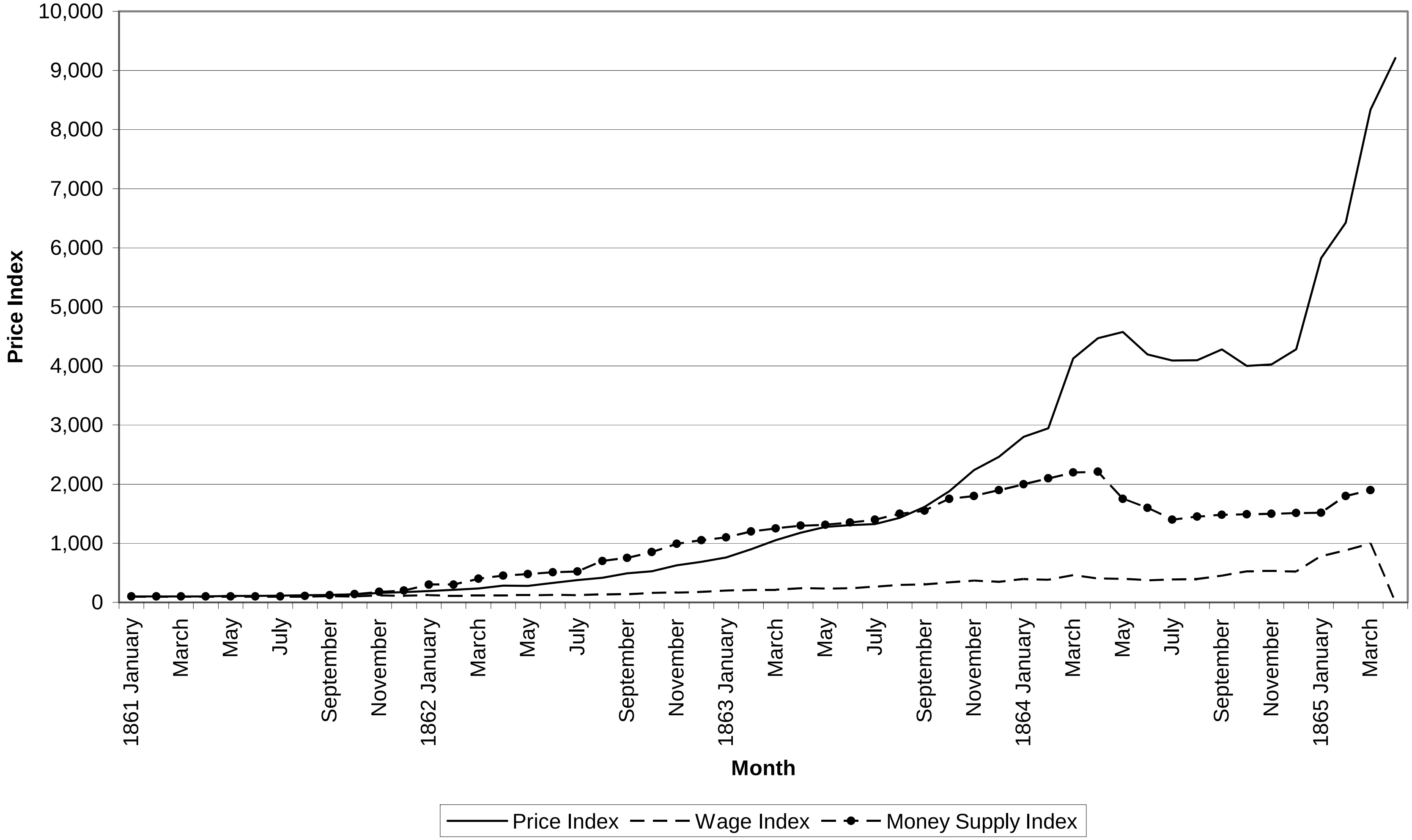
MC – Member of Congress

Table 8: Odds Ratio of Voting for Taxes

	Model 1	Model 2
MCs with 10% more state slave assets	0.962	0.964
MCs with 20% more state slave assets	0.950	0.953
MC from Deep South in Regime after 1863 Recess[+]	1.464	1.486

MC – Member of Congress
[+]The recess between the Third Session and Fourth Session of the First Confederate Congress was from May 1, 1863 until December 7, 1863.

Figure 1: Confederacy Price Index, Wage Index, and Money Supply



Source: Ransom, Roger L. 2004. "The Economics of the Civil War." http://www.eh.net/encyclopedia/ransom.civil.war.us.php. Figure 5. January 1861=100

Appendix: Timeline of Major Military Events, Political Events, Union and Confederate Financial Legislation

Military Events (victor: N/S)	Political Events		Union: Financial Laws (m. = million)	Confederacy: Financial Laws (m. = million)
	Nov. 1860; Election of Lincoln	Nov. 1860		
	Dec. 20, 1860, S Carolina secedes	Dec. 1860	Dec. 17, 1860; issue up to $10m. in notes	
	Jan. 9 – Feb. 1, 1861; Deep South secedes[1]	Jan. 1861		Feb. 28, 1861; $15 m. loan; duty on cotton exports begins Aug. 1861
	Feb. 4 - Mar 11, 1861; seceded states write constitution; elect Davis	Feb. 1861	Feb. 8, 1861; issue up to $20 m. in bonds	
		Mar. 1861	Mar. 2, 1861; issue up to $10 m. in bonds; tariff on various goods	Mar. 9, 1861; Issue Trs. Notes up to $1 m.
April 12 - 13, 1861, Confederate bombardment; surrender of Fort Sumter	April 15, 1861; Lincoln calls for 75,000 volunteers to suppress the rebellion	Apr. 1861		Mar. 15, 1861; import duty of 15% on various imported goods
		May. 1861		May 11, 1861; bank notes no longer backed by specie can be used to buy Feb. 18, 1861 loan
	April 17 - June 8, 1861; Upper South states secede[2]	June 1861		
July 21, 1861; First Bull Run or Manasses (S)		July 1861	July 17, 1861; issue bonds and notes totaling up to $250 m.	May 16, 1861; loan of $50 m., up to $20 m. issued in notes
		Aug. 1861	Aug. 5, 1861; tariff on various goods; direct tax of $20 m. annually to be distributed among states; income tax; issue up to $50 m. in bonds	
		Sept. 1861		May 21, 1861; import duty, rates vary from 5%-25% on various goods
		Oct. 1861		Aug. 3, 1861; double cap on Treasury notes (Mar. 9, 1861 law) to $2 m.
		Nov. 1861	Dec. 24, 1861; increase duties on various goods	
		Dec. 1861		Aug.19, 1861; Trs. Sec. can issue notes as public requires; amount capped at $100 m.; Tax on property - inventory to be gathered by Feb.1 1862 and to start collection in May 1862
Feb. 16, 1862; US Grant captures Fort Donelson, (N)		Jan. 1862	Jan. 21 , 1862, tariffs to secure at least $150 m. annually to pay debt	
Feb. 25 1862; Union forces occupy Nashville, Tennessee (N)		Feb. 1862	Feb. 25, 1862; Legal Tender Act; issue up to $100 m. in notes (later called greenbacks) which are legal tender for all payments; issue up to $150 m. in bonds	
		Mar. 1862		
Apr. 6-7, 1862; Shiloh (N)		Apr. 1862		Dec. 24, 1861; extend cap of Aug. 19, 1861 by $50 m.; cap set at $150 m.
Apr. 25, 1862; Fall of N. Orleans (N)		May 1862		Apr 12, 1862; Cap note issue fr. $150 to $215 m.
June 6, 1862; Memphis, Tennessee falls (N)		June 1862	July, 1 1862; tax on licenses; income tax; stamp tax; inheritance tax; tax on goods.	Apr. 17, 1862; Note issue of $5 m. notes (in excess of other caps)
June 26- July 1, 1862; Seven Days Battle (S)		July 1862		
	Sept. 23, 1862; formal announcement of Emancipation Proclamation	Aug. 1862	July 11, 1862; issue up to $150 m. in notes; notes to be legal tender	Sept. 19, 1862; further increase of cap on note issues to $218.5 m.
August 30, 1862; Bull Run (S)		Sept. 1862		Sept. 23, 1862; further issue of $5 m. notes (in excess of other caps); Trs
Sept. 17-19, 1862; Antietam (N)		Oct. 1862		

Military Events (victor: N/S)	Political Events		Union: Financial Laws (m. = million)	Confederacy: Financial Laws (m. = million)
Dec. 13, 1862; Fredricksburg (S)		Nov. 1862		can issue securities required to pay appropriations made by Congress
Dec. 31 1862- Jan. 2 1863; Stone River (N)		Dec. 1862	Feb. 25, 1863; National Banking Act; regulates national banks; currency backed by bonds; circulating notes capped at $300 m.	
	Jan. 1, 1863; Lincoln issues his Emancipation Proclamation	Jan. 1863		Mar. 23, 1863; Trs issue $50 m. notes monthly; convert notes to bonds
		Feb. 1863		Apr. 24, 1863; internal tax on goods, income tax, tax in kind, license tax
		Mar. 1863	Mar. 3, 1863; issue up to $300 m. in bonds this year; issue bonds up to $600 m. in bonds next year (total $900 m.) issue up to $400 m. in notes	
		Apr. 1863		Apr. 27, 1863; Trs. Sec. can issue bonds to pay for all gov't purchases before Dec. 1862 (amount unspecified)
May 2, 1863; Chancellorsville (S)		May 1863		
July 1-3, 1863; Gettysburg (N)		June 1863		
July 4, 1863; Vicksburg (N)		July 1863		
		Aug. 1863		
Sept. 19-20, 1863; Chickamauga (S)		Sept. 1863		
		Oct. 1863		
Nov. 25, 1863; Chattanooga (N)		Nov. 1863		
		Dec. 1863		Feb. 17, 1864; forced conversion of notes into bonds; partially revoke authority of Trs. Sec. to issue notes; Trs. Sec. can issue $500 m. in bonds to cover expenses of gov't; bonds backed by import/export duties
		Jan. 1864		
		Feb. 1864	Mar. 7, 1864; taxes on various goods	
		Mar. 1864	April 29, 1864; temporary increase in import duties on all goods by an additional 50% for 2 months	
May 5, 1864; Wilderness (S?)		Apr. 1864		Feb. 17, 1864; Taxes on property, stocks, various goods, professional licenses, tax in kind
May 8-19, 1864; Spottsylvania Court House (S?)		May 1864	June 27, 1864; extends 50% increase on duties for 1 month	
June 3, 1864; Cold Harbor Assault (S)		June 1864		June 10, 1864; Additional tax of 20% on all existing subjects that are taxed; money to be allocated to pay soldiers
July 12, 1864, Early's retreat (N)		July 1864	June 30, 1864; on various goods	
Aug. 5, 1864, Mobile Bay (N)		Aug. 1864	June 30, 1864; issue max. of $400 m. in bonds	June 14, 1864, tax increase on already existing taxes; including tax on income of charitable organizations and schools
Sept. 2, 1864; Atlanta falls (N)	Nov. 7, 1864; Davis proposes enrolling slaves Conf. military and freeing those who served; starts acrimonious debate	Sept. 1864	July 4, 1864; increase in income tax	
		Oct. 1864		
Nov. 16-Dec. 10, 1864, Sherman's March (N)		Nov. 1864		
Dec. 15-16, 1864; Hood destroyed (N)	Nov. 8, 1864; Rep. w/large maj.	Dec. 1864		

Military Events (victor: N/S)	Political Events		Union: Financial Laws (m. = million)	Confederacy: Financial Laws (m. = million)
Dec. 24, 1864; Savannah falls (N)		Jan. 1865		
Mar. 13, 1865; Johnston surrenders (N)		Feb. 1865		
	Mar. 13, 1865; Conf. Congress authorizes recruitment of slaves as soldiers but w/o offering freedom	Mar. 1865	Mar. 3, 1865; issue up to $600 m. in bonds or notes	
Apr. 2, 1865; Richmond falls (N)		Apr. 1865		
April 9, 1865; Lee surrenders (N)	April 14, 1865, Lincoln is fatally shot	May 1865		
May 12-13, 1865; final land battle of war at Palmito				

[1] Mississippi Jan. 9; Florida, Jan. 10; Alabama, Jan. 11; Georgia, Jan. 19; Louisiana, Jan. 26; Texas, Feb. 1.
[2] Virginia, April 17, Arkansas, May 6, N. Carolina, May 20; Tennessee, June 8.

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Sources for financial legislation: Statutes at Large Confederate States; Statutes at Large United States.

[1] See Ball, Douglas B. 1991. *Financial Failure and Confederate Defeat*. Chicago: University of Illinois Press. p. 255.

[2] For an excellent study of the Union's finances see Bensel, Richard. 1990. *Yankee Leviathan: The Origins of Central State Authority in America, 1859-1877*. Cambridge: Cambridge University Press. See also Roll, Richard. 1972. "Interest Rates and Price Expectations During the Civil War." *Journal of Economic History*. 32(2): 476-498. And Patterson, Robert T. 1952. "Government Finance on the Eve of the Civil War." *Journal of Economic History*. 12(1): 35-44.

[3] See also Schwab, J. C. 1892. "The Finances of the Confederate States." *Political Science Quarterly*. 7(1): 38-56. Schwab, J. C. 1901. *The Confederate States of America 1861-1865: A Financial and Industrial History of the South During the Civil War*. New York: Charles Scribner's and Sons. Patterson, Robert T. 1952. "Government Finance on the Eve of the Civil War." *Journal of Economic History*. 12(1): 35-44. Burdekin, Richard C K., and Farokh K. Langdana. 1993. "War Finance in the Southern Confederacy." *Explorations in Economic History*. 30: 352-76.

[4] See Bodenhorn, Howard. 1992. "Capital Mobility and Financial Integration in Antebellum America." *The Journal of Economic History*. 52:585-610. Goldin, Claudia, and Frank D. Lewis. 1975. "The Economic Cost of the American Civil War: Estimates and Implications." *Journal of Economic History*. 35(2): 200-215. Persons, Warren M., Pierson M. Tuttle, and Edwin Frickey. 1920. "Business and Financial Conditions Following the Civil War in the United States." *The Review of Economic Statistics*. 2(2): 5-21. Schweikart, Larry. 1987. *Banking in the American South from the Age of Jackson to reconstruction*. Baton Rouge: Louisiana State University Press. Temin, Peter. 1976. "The Post-Bellum Recovery of the South and the Cost of the Civil War." *Journal of Economic History*. 36(4): 898-907. For a discussion of Georgia's post-war economy see Wallenstein, Peter. 1984. "Rich Man's War, Rich Man's Fight: Civil War and the Transformation of Public Finance in Georgia." *The Journal of Southern History*. 50(1): 15-42. For a review of the North's economic development see Williamson, Jeffrey G. 1974. "Watersheds and Turning Points: Conjectures on the Long-Term Impact of Civil War Financing." *Journal of Economic History*. 34(3): 636-661.

[5] Tilly, Charles. 1990. *Coercion, Capital, and European States, AD 990-1990*. Cambridge: Basil Blackwell.

[6] See Levi, Margaret. 1988. *Of Rule and Revenue*. Berkeley: University of California Press. Rosenthal, Jean-Laurent. 1998. "The Political Economy of Absolutism Reconsidered." In *Analytic Narratives*. Robert H. Bates, Avner Greif, Margaret Levi, Jean-Laurent Rosenthal, and Barry R. Weingast, eds. Princeton: Princeton University Press. North, Douglass, and Barry R. Weingast. 1989. "Constitutions and Commitment: The Evolution of Institutions Governing Public Choice in Seventeenth Century England." *Journal of Economic History*. 49: 803-32. Brewer, John. 1988. *The Sinews of Power: War, Money and the English State, 1688-1783*. Cambridge: Harvard University Press. p. xvi. Skowronek, Stephen. 1982. *Expansion of National Administrative Capacities, 1877-1920.* Cambridge: Cambridge University Press.

[7] Bensel, Richard. 1987. "Southern Leviathan: The Development of Central State Authority in the Confederate States of America." *Studies in American Political Development*. 2:68-136. See also McPherson, James M. 1992. "American Victory, American Defeat." In *Why the Confederacy Lost*. Edited by Gabor S. Boritt. New York: Oxford University Press.

[8] Bensel. "Southern Leviathan: The Development of Central State Authority in the Confederate States of America." p. 135.

[9] Ball, Douglas B. 1991. *Financial Failure and Confederate Defeat.* Urbana: University of Illinois Press. Burdekin, Richard C K., and Farokh K. Langdana. 1993. "War Finance in the Southern Confederacy." *Explorations in Economic History*. 30: 352-76. Lebergott, Stanley. 1981. "Through the Blockade: The Profitability and Extent of Cotton Smuggling." *Journal of Economic History*. 4:867-88. Patto, Carl Vernon. 1975. "Budgeting Under Crisis: The Confederacy as a Poor Country." *Administrative Science Quarterly*. 20(3): 355-370. Roll, Richard. 1972. "Interest Rates and Price Expectations During the Civil War." *Journal of Economic History*. 32(2): 476-498. Schwab, J. C. 1892. "The Finances of the Confederate States." *Political Science Quarterly*. 7(1): 38-56. Smith, Ernest Ashton. 1901. *The History of the Confederate Treasury*. Harrisburg, PA: Press of Harrisburg Publishing Co. Thornton, Mark, and Robert B. Ekelund, Jr. 2004. *Tariffs, Blockades, and Inflation: The Economics of the Civil War*. Wilmington, Delaware: A Scholarly Resources Inc. Imprint. Todd, Richard Cecil. 1954. *Confederate Finance*. Athens: University of Georgia Press. Weidenmier, Marc D. 2000. "The Market for Confederate Cotton Bonds." *Explorations in Economic History*. 37: 76-97. Weidenmier, Marc D. 2002. "Turning Points in the US Civil War: Views from the Grayback Market." *Southern Economic Journal*. 68(4): 875-90.

[10] Einhorn (2000) argues that the tariff had been so prevalent during the antebellum years because other tax policies, in particular direct taxes, always raised the issue of slavery. Although there were drawbacks, legislators preferred to wrestle over the details of tariff rates and goods rather than provoke the underlying sectional divisions over slavery. Einhorn, Robin L. 2000. "Slavery and the Politics of Taxation in the Early United States." *Studies in American Political Development*. 14: 156-183.

[11] See *Historical Statistics of the United State, Colonial Times to 1970.* US Census Bureau.

[12] See also Cooper, William J. Jr. 1978. *The South and the Politics of Slavery 1828-1856*. Baton Rouge: Louisiana State University Press, and Holt, Michael F. 1992. *Political Parties and American Political Development from the Age of Jackson to the Age of Lincoln*. Baton Rouge; Louisiana State University Press.

[13] Bensel. "Southern Leviathan: The Development of Central State Authority in the Confederate States of America."

[14] *Southern Historical Society Papers.* 1923. New Number Series 4, Whole Number 44. p. 171.

[15] *Southern Historical Society Papers.* 1925. New Number Series 7, Whole Number 45. p. 93.

[16] Gunderson, Gerald. 1974. "The Origins of the American Civil War." *Journal of Economic History*. 34:915-950. p. 917.

[17] Fogel, Robert W., and Stanley L. Engerman. 1974. *Time on the Cross*. Boston: Little, Brown. p. 96.

[18] Bensel. *Yankee Leviathan*.

[19] The causes of southern secession can be summarized by three prevailing theories. The fundamentalist theories argue that there were economic, political, social, and cultural differences between the North and South that could not be resolved, and that slavery was a critical issue in the fight for secession. Revisionist historians argue that differences about slavery and economics were not sufficient to have caused the war; rather southern political leaders overreacted to the North's opposition to slavery and transformed manageable differences into a political and eventual military crisis. Neofundamentalists have reemphasized the role of slavery in the divisions between the North and South but argue that southerners saw the threat not in abolition in the south itself but rather the westward expansion and the extension of slavery into the new states. See Davis, David Brion. 2003. *Challending the Boundaries of Slavery*. Cambridge: Harvard University Press. Foner, Eric. 1980. *Politics and Ideology in the Age of the Civil War*. New York: Oxford University Press. Holt, Michael F. 1992. "The Problem of Civil War Causation." *Political Parties and American Political Development*. Baton Rouge: Louisiana State University. pp.

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[20] True to form, the northern Republicans enacted the National Banking Act on February 25, 1863, creating the nation's first national banking system which chartered national banks, made their notes legal tender, and essentially forced state banks to join the federal system through the use of tax incentives. This was in many ways an expansion of the national banks created during the antebellum years.

[21] In 1860, $27 million worth of goods were imported in southern ports while $182 million worth of goods were exported; northern ports imported $327 million worth of goods and exported $151 million. See Ball *Financial Failure and Confederate Defeat*, p. 93.

[22] See Ely, Richard T. 1888. *Taxation in American States and Cities*. New York: Thomas Y. Crowell & Co.

[23] Comparing the United States to other countries on the American continent, Sokoloff and Zolt argue that the extent of inequality has significant consequences for tax policies. Specifically, as inequality increases, the elite are able to dominate politics and can keep taxes, in particular property taxes, to a minimum. See Sokoloff, Kenneth L and Eric M. Zolt. November 2004. "Inequality and the Evolution of Institutions of Taxation: Evidence from the Americas. Manuscript.

[24] For a compelling discussion and evaluation of how an individual's previously held convictions and beliefs affect how she interpret new information see Gerber, Alan and Donald Green. 1999. "Misperceptions About Perceptual Bias." *Annual Review of Political Science*. 2:189-210.

[25] For an application of war financing and borrowing see Grossman, Herschel I., Taejoon Han. 1991. "A Theory of War Finance." *NBER Working Papers Series*. Paper 3799. 1-18. And Grossman, Herschel I., Taejoon Han. 1996. "War Debt, Moral Hazard, and the Financing of the Confederacy." *Journal of Money, Credit, and Banking.* 28(2): 200-215.

[26] See also Tilly. *Coercion, Capital, and European States, AD 990-1990*. Levi. *Of Rule and Revenue*. And Rosenthal, Jean-Laurent. "The Political Economy of Absolutism Reconsidered."

[27] Uniformity in tax rates had been a vital instrument for southerners to protect their slave assets from progressive tax rates. See Einhorn, Robin L. 2001. "Species of Property: The American Property-Tax Uniformity Clauses Reconsidered." *The Journal of Economic History*. 61(4): 974-1008.

[28] See Smith. *The History of the Treasury*.

[29] See Schwab. "The Finances of the Confederate States." *Political Science Quarterly*.

[30] Van Riper, Paul P., and Harry N. Scheiber. 1959. "The Confederate Civil Service." *The Journal of Southern History*. 25(4):448-470.

[31] Smith. *The History of the Confederate Treasury*.

[32] *Charleston Mercury* (Item #603). See also Feb. 5, 1861, *The Charleston Mercury* (Item #354), February 25, 1861, *The Charleston Mercury* (Item #595). See also May 16, 1861, *The Charleston Mercury* (Item #1305), which advocated that the fairest method of raising funds was by direct taxation.

[33] Smith. *The History of the Confederate Treasury*. p. 9.

[34] *Southern Historical Society Papers*. 1925. New Number Series 7, Whole Number 45. pp. 221-222.

[35] *Southern Historical Society Papers*. 1943. New Number Series 11, Whole Number 49. p. 137.

[36] Goods included salt, wine, liquors, tobacco, cotton, wool, flour, sugar, molasses, syrup, rice, and other agricultural products.

[37] Income below $1,000 was exempt; and income between $1,000 and $1,500 was taxed at 1%.

[38] This protection of slave assets was not unique to tax policies. One of the most striking examples of its importance was President Davis' unsuccessful proposal on November 7, 1864, to enroll slaves in the Confederate army in exchange for their freedom. When Congress finally authorized the recruitment of slaves into the army more than four months later, on March 13, 1865, they did so without offering freedom; their concession was a symbolic gesture at best.

[39] There were many debates and discussions about the adequate compensation to property owners. Some congressmen argued that property owners should be compensated at the market price, resulting in debates about how such a market price could be determined. Senator Henry of Tennessee humorously points out the problem of relying on market prices: "As an instance, Richard III when down in the dust and blood of Bosworth field, offered his 'kingdom for a horse.' … that was the market value of a horse at that juncture." (Confederate Congress Debates. *Southern Historical Society Papers*. 1941. New Number Series 10, Whole Number 48. March 5, 1863, p. 255.) Other debates centered on which military officers would have the authority to impress property. Senator Wigfall of Texas argues that "it might occur that the commander would be miles distant from the camp. Should the army which had been marching without food and was still on the march, be allowed to starve because the Colonel could

not find the commander?" (Confederate Congress Debates. March 4, 1863, pp. 245-246.) Eventually, a board was set up to decide on fair prices.

[40] Because of the difficulty in tracking all goods impressed and confiscated, there is ambiguity about the total contributions that impressments made to the budget.

[41] Lebergott. "Why the South Lost: Commercial Purpose in the Confederacy, 1861-1865." p. 62.

[42] Neil Fulghum. "Moneys for the Southern Cause." University of North Carolina at Chapel Hill Libraries. *Documenting the American South*. http://docsouth.unc.edu/imls/currency/index.html. In Salisbury, North Carolina, an angry throng of soldiers' wives hacked down a store owner's door showing their outrage at the "unreasonable" prices they were expected to pay for basic goods. Once the mob gained access to the store, the owner sensibly sold 10 barrels of flour at reduced prices. Neil Fulghum. "Money Troubles on North Carolina's Homefront." *Documenting the American South*.

[43] Neil Fulghum. "Money Troubles on North Carolina's Homefront." *Documenting the American South*.

[44] Grossman, Herschel I., Taejoon Han. 1996. "War Debt, Moral Hazard, and the Financing of the Confederacy." *Journal of Money, Credit, and Banking.* 28(2): 200-215.

[45] Gentry, quoted in Grossman and Han. "War Debt, Moral Hazard, and the Financing of the Confederacy."

[46] *Southern Historical Society Papers*. 1958. New Number Series 13, Whole Number 51. p. 223.

[47] Burdekin and Langdana. "War Finance in the Southern Confederacy." p. 355.

[48] *The Charleston Mercury* (Item #5489). See also July 9, 1861, *The Charleston Mercury* (Item #1707); March 4, 1862, *The Charleston Mercury* (Item #3756); January 15, 1863, *The Charleston Mercury* (Item #6726).

[49] *Southern Historical Society Papers*. 1923. New Number Series 4, Whole Number 44. p. 149.

[50] *Southern Historical Society Papers*. 1941. New Number Series 10, Whole Number 48. p. 270.

[51] Martis, Kenneth C. 1994. *The Historical Atlas of the Congresses of the Confederate States of America 1861-1865*. New York: Simon and Schuster. p. 28.

[52] Pecquet, Gary, George Davis, and Bryce Kanago. 2004. "The Emancipation Proclamation, Confederate Expectations, and the Price of Southern Bank Notes." *Southern Economic Journal*. 70(3):616-630. p. 617.

[53] *The Charleston Mercury* (Item #8089). See also Oct 6, 1863, *The Charleston Mercury* (Item #8319); Oct. 7, 1863, *The Charleston Mercury* (Item #8327 and #8324), Dec. 24, 1863, *The Charleston Mercury* (Item #8739).

[54] *Southern Historical Society Papers*. 1958. New Number Series 13, Whole Number 51. pp. 458-459.

[55] See also commentary published on March 21, 1864, *The Charleston Mercury* (Item #9144), criticizing Congress' delay in raising taxes.

[56] *The Charleston Mercury* (Item #7545).

[57] Lebergott, Stanley. 1983. "Why the South Lost: Commercial Purpose in the Confederacy, 1861-1865." *The Journal of American History*. 70(1): 58-74.

[58] Lebergott. "Why the South Lost: Commercial Purpose in the Confederacy, 1861-1865." p. 66. In August 1862, Congress tried to address the problem of soldiers' pay and a bill was proposed to create an independent bureau in charge of administering pay. But the bill was tabled when it became clear that troop pay had less to do with administration than with the lack of funds. *Southern Historical Society Papers*. 1925. New Number Series 7, Whole Number 45. p. 255, 270. *Southern Historical Society Papers*. 1928. New Number Series 8, Whole Number 46. pp. 3-4.

[59] Scheiber, Harry N. 1969. "The Pay of Confederate Troops and Problems of Demoralization: A Case of Administrative Failure." *Civil War History*. 15:226-236. p. 226.

[60] Scheiber. "The Pay of Confederate Troops and Problems of Demoralization: A Case of Administrative Failure." p. 227, 234..

[61] The Report was on H.R. 92, a bill to tax, fund and limit the currency.

[62] February 19, 1864, *The Richmond Enquirer* (Item #9017).

[63] For example, a 10% tax on bank shares increased to 12%.

[64] See Todd. *Confederate Finance*. pp. 135, 153, and 199.

[65] See also McCandless, George T. Jr. 1996. "Money, Expectations, and the US Civil War." *The American Economic Review*. 86(3): 661-671.

[66] Smith, Ernest Ashton. 1901. *The History of the Confederate Treasury*. Harrisburg, PA: Press of Harrisburg Publishing Co. (p. 3)

[67] Alexander, Thomas B. and Richard E. Beringer. 1972. *The Anatomy of the Confederate Congress*. Nashville: Vanderbilt University Press. (p. 24)

[68] Jenkins, Jeffrey A. 1999. "Examining the Bonding Effects of Party: A Comparative Analysis of Roll-Call Voting in the US and Confederate Houses." *American Journal of Political Science*. 43(4): 1144-1165. Jenkins,

Jeffrey A. 2000. "Examining the Robustness of Ideological Voting: Evidence from the Confederate House of Representatives." *American Journal of Political Science*. 44(4): 811-822.

[69] For a detailed review and empirical applications of this model see Zorn, Christopher J. W. 2001. "Generalized Estimating Equation Models for Correlated Data: A Review with Applications." *American Journal of Political Science*. 45(2): 470-490; and Hosmer, David W. and Stanley Lemeshow. 2000. 2nd Edition. *Applied Logistic Regression*. New York: John Wiley & Sons, Inc. For models with temporally dependent observations see Beck, Nathaniel, Jonathan N. Katz, and Richard Tucker. 1998. "Taking Time Seriously: Time- Series-Cross-Section Analysis with a Binary Dependent Variable." *American Journal of Political Science*. 42:1260-1288. For models with time-varying variables see Wawro, Gregory. 2001. "A Panel Probit Analysis of Campaign Contributions and Roll-Call Votes." *American Journal of Political Science*. 45(3): 563-579.

[70] Hosmer and Lemeshow. *Applied Logistic Regression*. p. 311.

[71] There is also an auto-regressive and unstructured correlation structure.

[72] Zorn. "Generalized Estimating Equation Models for Correlated Data: A Review with Applications." p. 473.

[73] Hosmer and Lemeshow. *Applied Logistic Regression*. p. 313.

[74] Since GEE is not based on likelihood, log-likelihood tests cannot be used.

[75] I thank Jeffrey Jenkins for making several key datasets available to me.

[76] This law established a federal administrative agency for tax collection, the Office of the Commissioner of Taxes. Appointments included a Commissioner, state collectors, and district collectors.

[77] The biographical information for each congressman is based on Alexander and Beringer *The Anatomy of the Confederate Congress*, available in electronic format from ICPSR.

[78] Cooper, William J. 1978. *The South and the Politics of Slavery 1828-1856*. Baton Rouge: Louisiana State University Press.

[79] In the analysis, I use the ln of the number of slaves per owner.

[80] In the analysis, I use the ln of the number of slaves owned and ln of the value of the estate.

[81] It is interesting to note that the concept of financial credibility was not lost on the North. In order to join the union, the readmitted states were required to default on their debt obligations. The fourth section of the fourteenth amendment states: "The validity of the public debt of the United States, authorized by law, including debts incurred for payment of pensions and bounties for services in suppressing insurrection or rebellion, shall not be questioned.

But neither the United States nor any State shall assume or pay any debt or obligation incurred in aid of insurrection or rebellion against the United States, or any claim for the loss or emancipation of any slave; but all such debts, obligations and claims shall be held illegal and void." This shattered the Confederacy's credibility with lenders of any kind, making it futile to begin another insurrection, not for political but for financial reasons.